Public Consultation on the Draft methodologies for the European resource adequacy assessment and for calculating the value of lost load, the cost of new entry for generation, or demand response and the reliability standard

Fields marked with * are mandatory.

NOTE (18/05/2020): According to a corrigendum sent by ENTSO-E paragraphs 9 and 10 of Article 17 of the VoLL/CoNE/RS proposal should be replaced by the following paragraph:

"9. To assess whether the Reliability Standard is achieved, the Member States shall assess the expected LOLE of their Zone(s) according to the Resource Adequacy Methodology referred to Article 23 of the Electricity Regulation Article 23. The Reliability Standard shall be considered satisfied if the expected LOLE, for a given year, is lower than or equal to the Reliability Standard target LOLE presented in paragraph 8."
This consultation is addressed to Member States, the Electricity Coordination Group and all interested stakeholders.

Replies to this consultation should be submitted by 27 May 2020, 23:59 hrs (CEST).

Questions should be addressed to ACER at: ACER-ELE-2020-012@acer.europa.eu

Introduction

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Article 7(4) of ACER Rules of Procedure (RoP) requires the submitting party in an ACER Public Consultation to indicate explicitly whether the submission contains confidential information and to claim any confidentiality in accordance with Article 9 of the RoP.

* Is your input into this consultation confidential?
  ☐ YES
  ☐ NO

Publication of responses and privacy
ACER will publish all non-confidential responses, including the names of the respondents, unless they should be considered as confidential, and it will process personal data of the respondents in accordance with Regulation (EU) 2018/1725 of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, taking into account that this processing is necessary for performing ACER’s consultation task. For more details on how the contributions and the personal data of the respondents will be dealt with, please see ACER’s Guidance Note on Consultations and the specific privacy statement attached to this consultation.

Context

Objectives

This consultation aims to gather views and information from Member States, the Electricity Coordination Group (ECG) set up under Article 1 of Commission Decision of 15 November 2012 and relevant stakeholders on the methodologies for:


- Calculating the value of lost load, the cost of new entry for generation, or demand response and the reliability standard (‘VoLL/CoNE/RS’), pursuant to Article 23(6) of Reg. (EU) 2019/943.

Specifically, the consultation follows the proposals (the ‘Proposals’) developed by the European Network of Transmission System Operators for Electricity (‘ENTSO-E’) in accordance with the aforementioned articles. ENTSO-E submitted the Proposals on 4 May 2020. The consultation further focuses on potential areas for improvement of the Proposals identified by the European Union Agency for the Cooperation of energy regulators (‘ACER’).

**Both Proposals will be consulted in this (one and only) ACER consultation:** given the strong links between the two Proposals, a joint consultation (instead of two separate ones) results in a more practical and convenient solution for the stakeholders.

The input from the consultation will be used by ACER in the approval procedure set out in Article 27 of Reg. (EU) 2019/943.

Related documents


• ENTSO-E’s proposal on a European Resource Adequacy Assessment methodology (‘ERAA Proposal’).

• ENTSO-E’s explanatory note on the European Resource Adequacy Assessment methodology (‘ERAA Explanatory Note’).

• ENTSO-E’s proposal for a Methodology for calculating the Value of Lost Load, the Cost of New Entry for generation, or demand response, and the Reliability Standard (‘VoLL/CoNE/RS Proposal’).

• ACER Guidance Note on Consultations


• ACER High-level principles for resource adequacy decisions.

Legal background

Pursuant to Articles 23(3) and 23(6) of Reg. (EU) 2019/943, ENTSO-E submitted to ACER on 4 May 2020 the Proposals.

Pursuant to Article 23(7) of Reg. (EU) 2019/943, the Proposals shall be subject to the prior consultation of Member States, the Electricity Coordination Group and relevant stakeholders before the approval by ACER under the procedure set out in Article 27 of Reg. (EU) 2019/943 and ACER RoP.

Consultation topics and questions

The consultation is divided into three parts. The first one refers to the ERAA Proposal, the second part refers the VoLL/CoNE/RS Proposal and the third part refers to aspects related to both Proposals.
1. On ERAA Proposal

Pursuant to Article 23(3) of Regulation (EU) 2019/943, ENTSO-E shall submit (by 5 January 2020) to the Electricity Coordination Group and ACER a draft methodology for the European resource adequacy assessment based on the principles provided for in Article 23(5) of Regulation (EU) 2019/943. ENTSO-E submitted the draft methodology on 4 May 2020. According to the same Article, such methodology “shall ensure that the resource assessment:

(a) is carried out on each bidding zone level covering at least all Member States;

(b) is based on appropriate central reference scenarios of projected demand and supply including an economic assessment of the likelihood of retirement, mothballing, new-build of generation assets and measures to reach energy efficiency and electricity interconnection targets and appropriate sensitivities on extreme weather events, hydrological conditions, wholesale prices and carbon price developments;

(c) contains separate scenarios reflecting the differing likelihoods of the occurrence of resource adequacy concerns which the different types of capacity mechanisms are designed to address;

(d) appropriately takes account of the contribution of all resources including existing and future possibilities for generation, energy storage, sectoral integration, demand response, and import and export and their contribution to flexible system operation;

(e) anticipates the likely impact of the measures referred in Article 20(3) of Reg. (EU) 2019/943;

(f) includes variants without existing or planned capacity mechanisms and, where applicable, variants with such mechanisms;

(g) is based on a market model using the flow-based approach, where applicable;

(h) applies probabilistic calculations;

(i) applies a single modelling tool;

(j) includes at least the following indicators referred to in Article 25 of Reg. (EU) 2019/943: ‘expected energy not served’ and ‘loss of load expectation’;

(k) identifies the sources of possible resource adequacy concerns, in particular whether it is a network constraint, a resource constraint, or both;

(l) takes into account real network development;

(m) ensures that the national characteristics of generation, demand flexibility and energy storage, the availability of primary resources and the level of interconnection are properly taken into consideration.”

The methodology shall also be the basis for carrying out national resource adequacy assessment according to the provisions set in Article 24 of Reg. (EU) 2019/943.
ACER seeks the opinion of stakeholders with respect to the following topics.

1.1 Do you think that policies and measures contributing to indirectly restricting wholesale price formation (as referred to in Article 10(4) of Reg. (EU) 2019/943) should be reflected in EARA?

☐ Yes
☐ No

1.2 Please elaborate on your previous answer

IFIEC Europe is of the opinion that undue restrictions of wholesale price formation have a negative impact on market functioning and as such have an impact on system adequacy and security of supply. Only by allowing free price formation can consumers indicate true willingness to pay and value of lost load. Prerequisite for this is that consumers can react to price signals, meaning that they need to have smart meters that allow to measure their off-take/injection and reaction to market prices, but also that they are exposed to market price signals. By limiting such price signals, consumers will not be able to valorise their flexibility. Looked at it from the other side, by allowing free price formation, in periods of scarcity prices will reflect the real value of electricity and will allow consumers to (partially) reduce their consumption whenever prices reach their individual value of lost load (the price point at which they become indifferent between consuming and not consuming electricity), thus automatically contributing to balance the system while also providing investment signals to the market. This will thus ensure that markets will balance in an Energy Only Market without the need for market-wide capacity remuneration mechanisms. Two important side comments need to be made: price caps can be needed for technical price formation reasons (as e.g. an infinite price level should be impossible) and in very specific circumstances and under specific conditions, as described in the Clean Energy Package, IFIEC Europe can agree with the implementation of strategic reserves in order to ensure that time lag effects for new capacity do not create short term adequacy issues, by keeping existing capacity in the system but out of the market.

1.3 How should policies and measures contributing to indirectly restricting wholesale price formation be reflected in EARA?

For IFIEC Europe, also referring to the above answer, such restrictions go against market price formation and as such should be included in the EARA as limiting factors that should be addressed before any CRM can be introduced, as described in the Clean Energy Package. Market distortions as such price restrictions, should be addressed before any CRM (including strategic reserves) can be envisaged and this should thus be reflected in the EARA methodologies.
1.4 What would be the impact on price formation during scarcity hours?

As described in 1.2, price restrictions will limit the ability for consumers to indicate true willingness to pay and value of lost load and will restrict investment signals. Moreover, by limiting prices, demand side response will be less obvious as in many cases consumers need a sufficiently high price in order to reduce or shift their consumption. Through price restrictions, demand side response would be hampered, thus leading to an underuse of flexibility in the system and thus an overestimate for the need of flexibility from other sources. In case such flexibility would then be contracted through CRMs, this would probably lead to an undue and unnecessary overall cost increase for consumers as demand side response usually has a high activation cost but a low investment cost as it is mostly secondary use of assets that have primarily been built for the purpose of consumption.

1.5 Do you think that, actions taken by a regulatory authority or designated competent authority aimed to eliminate identified policies or measures which could serve to restrict wholesale price formation (as referred to in Article 10(5) of Reg. (EU) 2019/943) should be reflected in EERA?

- Yes
- No

1.6 Please elaborate on your previous answer

As the Clean Energy Package itself indicates (art 20 of Regulation EU2019/943), all regulatory distortions, price caps and regulated prices should be addressed through an implementation plan, before as a last resort Member States may introduce capacity mechanisms. IFIEC Europe insists that also regulatory authorities should apply a same logic as in many cases they have a clear role in the aforementioned points and it would be inconceivable that a different approach and order of steps would be taken in these matters between Member States and regulatory authorities.

1.7 Do you think that scenarios for EERA should reflect the timeline for adopting measures to eliminate any identified regulatory distortions or market failures as a part of the State aid process included in the implementation plans as referred to in Article 20(3) of Reg. (EU) 2019/943?

- Yes
- No

1.8 Please elaborate on your previous answer

IFIEC Europe believes that any resource adequacy assessment, including EREA, should include such timelines as the Clean Energy Package itself indicates that CRMs are to be last resort options. If the introduction of such mechanism can be avoided (or limited to the implementation of strategic reserves for a limited period of time and volume) by removing market distortions, this would lead to a lower overall cost for consumers. As such, timelines for the removal of market distortions are essential and would also
provide valuable information on the alternative solutions as compared to costly CRMs.

1.9 How should scenarios for EARA reflect the timeline for adopting measures to eliminate any identified regulatory distortions or market failures as a part of the State aid process included in the implementation plans?

IFIEC Europe is of the opinion that all identified and even unidentified regulatory distortions and market failures are to be eliminated as soon as possible. We suggest a transparent instrument be developed to verify if suppliers/BRPs are capable of balancing their portfolio in the medium term (3 to 5 years before real-time) in order to avoid CRMs need to be introduced.

1.10 How do you expect the measures referred to in questions 1.1 and 1.5 would affect price formation, especially during scarcity situations (i.e. when unserved energy occurs)?

IFIEC Europe refers to its previous answers, in particular to 1.2 and 1.4.

1.11 The Proposal for EARA mentions that Replacement Reserve (RR) is fully available to avoid unserved energy, whereas FRR is fully unavailable for this purpose. Do you agree with this proposal?

☐ Yes
☐ No

1.12 Please elaborate on your previous answer

For IFIEC Europe it is clear that all flexibility should be considered in any resource adequacy assessment. Especially when more extreme scenarios are considered, it is unacceptable and inconceivable to IFIEC that large volumes of flexibility would not be considered. In case of scarcity and finally curtailment, this would imply that several BRPs are to be in imbalance and aggravating the system position. Such imbalance would be countered by TSOs by the use of their balancing reserves, as is also the case in “normal” (non-scarcity) conditions. Thus not taking into account RR but even also FRR would underestimate greatly the available flexibility in the system, in particular in the more extreme scenarios. Put in the other way, not applying these reserves (and not taking them into account) would lead to imbalances in the system that would lead to curtailment, while still having large volumes of unused capacity in reserve that has been paid for by consumers. It would be extremely difficult to justify this from an economic perspective, let alone from a societal perspective.

1.13 What do you think should be the FRR purpose (and use) at times of unserved energy and how should EARA reflect this use?

See question 1.12
1.14 Do you agree that unused (normatively estimated based on the historical difference between available and activated for other purposes, see example below) Frequency Restoration Reserves (FRR) upwards should be used in ERAA as resource with the aim to reduce unserved energy (which ultimately materialises as imbalance)

- Yes
- No

1.15 Please elaborate on your previous answer, eventually with a proposal for the normative estimation of unused FRR.

IFIEC Europe refers to its answer on 1.12 and insists that it is of the opinion that even more of FRR should and could be considered in extreme scenarios. In more base case scenarios, the proposed approach in this question would be the absolute minimum of FRR to be considered in any resource adequacy assessment, including ERAA, for IFIEC Europe.

1.16 What should be the price for unused FRR in ERAA?

IFIEC Europe does not have a strong opinion on this point. IFIEC Europe does understand that it might not be wise to apply the activation price of FRR, as in specific situations this price could be lower than the day-ahead or intraday price in scarcity situations and thus create perverse effects. In any case, for any resource adequacy assessment IFIEC Europe strongly insists that the price level of FRR is irrelevant (as opposed to the price level that will be used when scarcity situations occur) as for an ex ante adequacy assessment, the focus is on determining whether sufficient flexibility and capacity will be available in the system, whatever the price level. This
also correspond with the position of IFIEC Europe in price formation and market distortions. Free market price formation should according to IFIEC Europe lead to a balance of supply and demand and correct investment signals in the EOM. The resource adequacy assessment should under free price formation not look into day-ahead and real-time prices as they are from an adequacy perspective irrelevant. IFIEC Europe strongly believes that free price formation will lead to sufficient market competition and thus to lower overall prices in the system, instead of artificially maintaining potentially unneeded and expensive reserve margins for capacity. If needed for the assessment, prices of FRR capacity that would be considered (thus also more largely in more extreme scenarios as described before) in any resource adequacy assessment, including ERAA, could be placed at the value of lost load.

1.17 Do you have any views for the selection of a relevant and representative set of climate years as input for the Monte Carlo approach?

IFIEC Europe has no strong position on this topic. However, as ENTSO-e indicated it wants to take into account the effect of climate change, this effect should also be considered in the selection of climate years. This implies that for example extreme historic climate years that would become less realistic and thus relevant in the future because of climate change should either be excluded or their extreme impact rather being taken into account as variations or sensitivities on scenarios rather than as integral element of the scenarios, in order to avoid skewing results unduly in one or the other direction without any future relevance because of historic extrapolation of no longer occurring situations.

1.18 Do you have any other major observation on the ERAA Proposal? (if so, please indicate clearly the related Article, paragraph of the proposal, and add a sufficient explanation)

As this field does not allow for more than 5000 characters and it is not possible to attach any other documents, IFIEC Europe suggest that ACER also looks into the IFIEC Europe answer to the ENTSO-e consultation on the proposal for a European Resource Adequacy Assessment Methodology, which is non-confidential and can be provided by IFIEC Europe or ENTSO-e.

2. On VoLL/CoNE/RS Proposal

Pursuant to Article 23(6) of Regulation (EU) 2019/943, ENTSO-E shall submit (by 5 January 2020) to ACER a “[…] draft methodology for calculating:

1. the value of lost load;

2. the cost of new entry for generation, or demand response;
ENTSO-E submitted the draft methodology on 4 May 2020.

Pursuant to Article 25(1) of Regulation (EU) 2019/943, “When applying capacity mechanisms Member States shall have a reliability standard in place. A reliability standard shall indicate the necessary level of security of supply of the Member State in a transparent manner [...]”. According to paragraph 2 of the same Article “The reliability standard shall be based on the methodology set out in Article 23(6).” while in paragraph 3 it is stated that “The reliability standard shall be calculated using at least the value of lost load and the cost of new entry over a given timeframe and shall be expressed as ‘expected energy not served’ and ‘loss of load expectation’.”

Pursuant to Article 11(1) of Regulation (EU) 2019/943, “By 5 July 2020 where required for the purpose of setting a reliability standard in accordance with Article 25 regulatory authorities or, where a Member State has designated another competent authority for that purpose, such designated competent authorities shall determine a single estimate of the value of lost load for their territory. That estimate shall be made publically available. Regulatory authorities or other designated competent authorities may determine different estimates per bidding zone if they have more than one bidding zone in their territory. Where a bidding zone consists of territories of more than one Member State, the concerned regulatory authorities or other designated competent authorities shall determine a single estimate of the value of lost load for that bidding zone. In determining the single estimate of the value of lost load, regulatory authorities or other designated competent authorities shall apply the methodology referred to in Article 23(6).”

Pursuant to Article 11(1) of Regulation (EU) 2019/943, “Regulatory authorities and designated competent authorities shall update their estimate of the value of lost load at least every five years, or earlier where they observe a significant change.”

ACER seeks the opinion of stakeholders with respect to the following topics.

2.1 In the CoNE Proposal, an initial list of technologies is set up: only technologies which fulfil criteria to become candidate Reference Technologies are then thoroughly studied. Do you agree with the way some technologies (e.g. Demand Side Response (DSR), RES, storage, etc.) are considered in the methodology for calculating the CoNE (Title 3 of VoLL/CoNE/RS Proposal)?

☐ Yes
☐ No

2.2 Please elaborate on your previous answer

In many cases, particularly for DSR, investment costs would be relatively low, as it often entails secondary use of existing assets, that have been built for other primary (consumption) purposes. As such, the cost of new entrant for such capacity would in many cases be very low (as opposed to activation costs, which could be high as they would have to compensate for the opportunity costs for the non-consumption of electricity). By not taking this into account, the risks exists that too expensive alternatives are taken into account. IFIEC Europe could only accept not taking this DSR, as
well as other sources of flexibility such as e.g. storage, into account for CoNE in case all of this flexibility is duly taken into account in any resource adequacy assessment, including ERRA, as such limiting the need for any new entrants. Indeed, if all inherent flexibility in the system, including DSR (potentially under condition of removing market distortions, also see the answer of IFIEC Europe in point 1), is duly and correctly taken into account in the assessment, it would not be available as a new entrant and the omission of its inclusion would not create a negative impact on the final result.

2.3 How would you suggest that these technologies should be considered?

See the answer on 2.2

2.4 Do you agree with the provisions of Article 15 of the VoLL/CoNE/RS Proposal according to which Member States can rely on their own relevant, recent and representative WACC estimates, instead of using a binding common methodology to calculate the WACC for all Member States?

☐ Yes
☐ No

2.5 Please elaborate on your previous answer

IFIEC Europe does not have a strong position on this point, but has not yet seen any clear analysis that would justify not applying a common methodology to calculate the WACC. Even under a common methodology, it would be possible to incorporate the impact of a different context on certain parameters and values of the calculation, but IFIEC Europe wonders which constituting elements of such methodology would be different between Member States.

2.6 Do you think that the main technical parameters used to calculate CoNE should be harmonised across MSs?

☐ Yes
☐ No

2.7 Please elaborate on your previous answer

IFIEC Europe does not have a strong position on this point, but has not yet seen any clear analysis that would justify not applying the same main technical parameters to calculate CoNE, as it cannot imagine that technological and technical options would vary so greatly between Member States to justify applying other technical parameters for similar or identical options.
2.9 Do you think that renewal or prolongation of existing resource capacity should be considered as a candidate technology that can address the required capacity needs and thus be taken into account in the calculation of the reliability standard (Annex 2(iii) of VoLL/CoNE/RS Proposal)?

- Yes
- No

2.10 Please elaborate on your previous answer

For IFIEC Europe this is obvious.

2.11 Do you agree with the provisions Annex 3 of the VoLL/CoNE/RS Proposal that a range of values of VOLL and CONE should be used to defined the reliability standard?

- Yes
- No

2.12 Please elaborate on your previous answer

Especially on the point of VoLL and as also expressed in the answer to the consultation on ERAA by ENTSO-e, IFIEC Europe insists that every consumer has a unique VoLL, at the point where consumers become indifferent between consuming and not consuming and any point beyond that level would voluntarily stop consuming. By only applying a single VoLL for the analysis, which would presumably be an average value, this would not correctly reflect the real situation as even below that value of VoLL a range of consumers would already have stopped consuming voluntarily, thus reducing the adequacy concern. The reliability standard should thus be calculated based on a more representative level of VoLL, that would be more in line with the lowest values of VoLL (or more exactly the value of VoLL for those consumers that would sooner become indifferent between consuming and non-consuming). By voluntarily stopping to consume, the implicit demand side response of these consumers would reduce the adequacy concern. However and in any situation, even in scarcity not all consumers should voluntarily stop consuming, only sufficient consumers such that supply and demand balance and as such not the (average) VoLL of all consumers and definitely not the highest VoLL would be the relevant measure to calculate the reliability standard.

2.13 How should the methodology define the approach for extracting a single value from each range when defining the reliability standard?

See answer on 2.13. A smaller share (%) of consumers that should deliver implicit demand side response through VoLL (see above) to balance supply and demand could be determined, and for that smaller share/volume of consumption, those with the lowest VoLL should be considered and then an overall VoLL for such group could be discerned.
2.14 Do you have any other major observation on the VoLL/CoNE/RS Proposal? (if so, please indicate clearly the related Article, paragraph of the proposal, and add a sufficient explanation)

As this field does not allow for more than 5000 characters and it is not possible to attach any other documents, IFIEC Europe suggest that ACER also looks into the IFIEC Europe answer to the ENTSO-e consultation on the proposal for a European Resource Adequacy Assessment Methodology, which is non-confidential and can be provided by IFIEC Europe or ENTSO-e.

3. On both Proposals

In order to ease the burden for the stakeholder, this section collects a set of questions pertaining to both Proposals.

3.1 Do you see an interplay between economic viability checks performed in EREA and reliability standard calculation?

- Yes
- No

3.2 Please elaborate on your previous answer

For IFIEC Europe this is obvious. It would be very strange if it were not the case.

3.3 How should this interplay affect CoNE, VoLL and maximum clearing price, in order to ensure a realistic and consistent modelling framework?

IFIEC Europe refers to its answers on points 1 and 2 of this consultation.

3.4 Do you think that the proposed involvement of stakeholders in both Proposal is sufficient to guarantee robustness and transparency on scenario assumptions, input datasets, modelling approaches (e.g. with respect to the links with national energy policy targets and plans, DSR modelling), etc.?

- Yes
- No

3.5 Please elaborate on your previous answer

IFIEC Europe currently does not know how much involvement of stakeholders will be organised; IFIEC Europe at this point already regrets that the proposed methodologies are very high level, without going into any details. Moreover, IFIEC Europe wonders if and to what extent the opinions of stakeholders will be taken into account, and to avoid that consultations are conducted more to comply with a legal obligation rather than for a real
interest in the opinion and expertise of stakeholders.

3.6 How should stakeholders be involved to guarantee robustness and transparency on scenario assumptions, input, datasets, modelling approaches, (e.g. with respect to the links with national energy policy targets and plans, DSR modelling), etc.? (this question disappeared from the ACER tool)

IFIEC Europe currently does not know how much involvement of stakeholders will be organised; IFIEC Europe at this point already regrets that the proposed methodologies are very high level, without going into any details. Moreover, IFIEC Europe wonders if and to what extent the opinions of stakeholders will be taken into account, and to avoid that consultations are conducted more to comply with a legal obligation rather than for a real interest in the opinion and expertise of stakeholders.

3.7 How should stakeholders be involved to support the implementation of the methodologies described in the Proposals?

IFIEC Europe wants to be consulted but also be involved in real workshops during the conception phase of the methodologies, before the finalization of all the methodologies, in order to be able to truly have interaction and create a better methodology to be consulted upon.

3.8 How would you increase stakeholder interaction with the aim to improve the methodologies towards possible future updates?

IFIEC Europe wants to be consulted but also be involved in real workshops during the conception phase of the methodologies, before the finalization of all the methodologies, in order to be able to truly have interaction and create a better methodology to be consulted upon.

Conclusion

4. Please provide any further comment

As this field does not allow for more than 5000 characters and it is not possible to attach any other documents, IFIEC Europe suggest that ACER also looks into the IFIEC Europe answer to the ENTSO-e consultation on the proposal for a European Resource Adequacy Assessment Methodology, which is non-confidential and can be provided by IFIEC Europe or ENTSO-e.

Contact

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