Mid term adequacy forecast -MAF 2016 Consultation

Overview

The **MAF 2016 presents the first Pan-European probabilistic assessment of adequacy**. While market-based probabilistic modelling approaches have already been adopted in some national generation adequacy studies and the PLEF regional adequacy assessment, this is the first time such studies have been conducted at the Pan-European level. This represents a significant analytical achievement. Moreover, this has involved extensive collaborative effort of representatives from TSOs covering the whole Pan-European area under the coordination of ENTSO-E.

This new approach in MAF 2016 is in line with the EC Electricity Coordination Group (ECG) which asked ENTSO-E to update their adequacy methodology and assessments to better account for the risks to security of supply and the need for flexibility as the Pan-European power system moves towards higher levels of renewable energy sources (RES). These improved assessments should also help highlighting the contribution of electricity interconnectors to national adequacy at times of potential scarcity.

The currently consulted **MAF 2016** can be **downloaded from here**.

The overview of **all the consultation's questions** can be **downloaded from here**.

Why we are consulting

ENTSO-E consults its Mid-Term Adequacy Forecast (MAF) assessment (previously referred as SO&AF), as part of the process to fulfil Regulation (EC) 714/2009 legal requirements

The importance and increased relevance of the forecasts provided by MAF, as input regarding the establishment of countermeasures by relevant stakeholders (e.g. Member State authorities, policy makers, regulatory agencies, energy producers) in order to ensure the desired adequacy levels, requires a wide consultation of all relevant Stakeholder.

Identification

1 What is your name?

Name

2 What is your email address?

This is optional, but if you enter your email address then you will be able to return to edit your consultation at any time until you submit it. You will also receive an acknowledgement email when you complete the consultation.

Email

3 What is your organisation?

Organisation

Consistency of the Mid-term Adequacy Forecast studies

The ENTSO-E Mid-term Adequacy Forecast (MAF) is a Pan-European assessment of the risks to security of supply and the need for flexibility over the next decade. The methodology used by ENTSO-E takes into account the transformation of the power system with increasing variable generation from renewable energy sources.

1 From your perspective, how can one ensure the consistency between European, regional and national adequacy studies?

MAF methodological improvements

The MAF 2016 represents a number of achievements worth highlighting. These include:

1. The study involves the whole Pan-European perimeter including Turkey
   The results have been benchmarked by calibration of four different analytical tools, which also account for the regional differences in power systems across Europe. This increases the consistency and robustness of the complex analytical results presented in the report,
2. and helps to improve the links between the MAF and regional/national adequacy studies.
   Also noteworthy are a number of important technical developments that meant it was possible to adapt the analysis to the specific requirements of different regions within
3. Europe. These include:
   - an advanced temperature-sensitive load model
     harmonised probabilistic hydrological analysis with data sets for extended dry and
   - wet hydro conditions
   - forced outage rates (FOR) for thermal units as well as on HVDC links

For more detail see chapter 1, MAF 2016.

1 Considering the above, what additional methodological improvements shall ENTSO-E consider for the future MAFs? Please justify why.

Suggestions for methodological improvements

Justification of the suggestions above - what will these improvements bring?

Consistent view on the commissioning/decommissioning/mothballing of power plants

Aside of the methodology, the adequacy outcomes are strongly influenced by the input data. In the case of ENTSO-E MAF, one data that the TSOs do not have full visibility on is the availability/decommissioning/ mothballing of the power plants for the next 5 to 10 years.

A European overview on anticipated decommissioning of power plants is needed to improve the quality of the data and accuracy of the adequacy assessments. Further rules at the EU level with regard to obligations for reporting decommissioning/mothballing plans
by owners of large (> 100 MW) and “system-relevant” generators on a rolling basis to the relevant TSOs can further help provide a pan-EU view on generation adequacy, expectations and input to ENTSO-E’s adequacy forecasts.

1 In this respect, how can you or which other stakeholders can help ENTSO-E (and its members) to get more reliable data on power plants availability/decommissioning/mothballing plants.

Economic viability of mid-term adequacy scenarios

The scenarios analysed in MAF 2016 for 2020 and 2025 are based on a best estimate of the evolution of the generation mix (thermal and renewable park) and transmission capacity as well as demand forecast of each country.

Within the principles set out by ENTSO-E for a common and consistent data collection, all TSOs have provided data considering to their best knowledge the evolution of their generation mix, in some cases including “economic viability” of the scenarios provided.

1 In order to present in the MAF a view on the economic viability of the generation portfolio (at the national level), the TSOs need to have a complete view of the economical/technical data & assumptions linked to these forecasts. What would you recommend to us in order to improve the quality of the data and assumptions mentioned above?

2 A solution may be to use two different sensitivity-scenarios for each time horizon as described below: i) one scenario linked to the current regulatory framework based on the energy only market, and ii) a second scenario linked to the future regulatory framework (for example reflecting expectations of national implementation of capacity mechanisms or any other market design instruments).

What is your view about this possible solution?

Any other comments

1 Please tell us below if you have other suggestions.