ENTSO-E views on Resource Adequacy: pan-European and national assessments should complement each other

Resource adequacy assessments are a fundamental part of the work performed by transmission system operators (TSOs) to ensure security of supply. Today, they are used by governments to establish the need case for capacity remuneration mechanisms. In recent years, ENTSO-E has facilitated the emergence of European adequacy assessments, allowing for a better coordination between EU countries.

The Clean Energy Package (CEP) acknowledges these developments and introduces new requirements for European Resource Adequacy assessment. As resource adequacy assessment is used both on national and on European level for decision making, the debate focusses on how to deal with potential conflicting views: should one view prevail over the other (e.g. top down over bottom up?)? How can we reconcile European and national assessments in case of different results? In the end, should European assessments replace national assessments?

ENTSO-E believes, that European and national adequacy assessments should complement each other in a transparent, continuous improvement process using the same methodology in the interest of European citizens. Like in air traffic control, national procedures and pan-European procedures must interact seamlessly and complement each other.

European and national views should be consistent: ENTSO-E methodology should be applied

Resource Adequacy Assessments are used for decision-making both

- **at national level,** to ensure Security of Supply of the future energy mix through introduction of potential capacity systems (CM);
- **at pan-European level,** to facilitate the Internal Energy Market (IEM) and prevent market distortions.

In order to facilitate the consistency of national and pan-European assessments, ensuring a consistent methodology between national and pan-European views is essential. National assessments must take cross-border interconnections into account whereas pan-European assessments must rely on accuracy and quality of national assumptions and data. As wind and photovoltaic generation is hard to predict, probabilistic methodologies are indispensable.

National accuracy and granularity of data and assumptions complement pan-European consistent view on use of interconnectors and climate data.

For historical as well as geographical reasons power systems have **strong national particularities** regarding how the national systems have been configured and how they are operated. Individual features of power systems such as properties of generation units like e.g. cooling or fuel logistics and stocks, rules of how to use gas e.g. for heating versus power generation in critical situations as well as demand side measures have evolved differently in different countries.

National TSOs are in the best position to understand system behaviour and remedial actions in critical situations, have high granularity of data at their disposal and the necessary background knowledge to use the right assumptions. This is reflected in important national experience in how to model system behaviour correctly. These studies are subject to significant scrutiny from government departments and national regulators.

However, with increasing European flows due to large scale RES integration, it is no longer sufficient to look at national border perimeters only. Correct understanding and considering the mutual influence of neighbouring systems, especially in scarcity situations, requires a **consistent European view**. Electricity is a homogenous product moving freely across Europe. Pan-European climate databases allow for consistent

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analysis of correlations between different climatic zones and their impacts on power systems, including cross-border flows.

ENTSO-E takes the view that European and national views should be consistent and complementary: ENTSO-E's methodology should thus be used for national studies.

Conclusion

Pan-European and national resource adequacy assessments should be based on the same ENTSO-E methodology; they should challenge and complement but not replace or overwrite one another. With this respect, ENTSO-E supports the wording proposed by the Council on 18.12.2017[1].

[1] While it is important that the same methodology is used, TSOs should be allowed to use different modelling tools because different tools take better account of regional specificities (e.g. hydro in the Nordics). ENTSO-E would thus not support Council proposal Article 19.4 (ga).

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