22 April 2020

OVERVIEW OF VOLL, CONE AND RELIABILITY STANDARD CONSULTATION COMMENTS

Uncertainties in the VoLL, CONE and Reliability Standard calculation – freedom of Member States to choose their level of reliability *on the basis* of the methodology.

Many stakeholders acknowledge ENTSO-E's efforts to propose a detailed methodology but underline that the calculation of the CONE and the VoLL necessarily involves uncertainties (which should be properly taken into account, e.g. by providing ranges rather than single values) and even subjectivity, which is also why Member States are legitimate when expressing their will to keep a certain leeway. Many stakeholders therefore consider that the methodology should define generic principles that ensure a reasonable harmonization in the way the VoLL, the CONE and the Reliability Standard are defined, in order to comply with the Electricity Regulation requirements, without being overly prescriptive nor giving the false appearance of scientific exactness. A clear distinction should be made between a reliability standard derived from estimates of VOLL and CONE, say the "target LOLE", and the reliability standards set by Member States

ENTSO-E position

We thank the stakeholders for their feedback. ENTSO-E has updated the methodology accordingly by:

- Reminding of the uncertainties in calculating the VoLL estimate and giving a range of values around the VoLL central estimate in order to reflect both the uncertainties around the central VoLL estimate (impact of the parameters, range of results obtained with different cost-estimation methods, weight of each consumer category in the single VoLL estimate) and the limitations of the methodology (e.g. impossibility to monetise the higher risk of uncontrolled outages);
- Reminding of the uncertainties around the CONE estimate and giving a range of values around the CONE central estimate in order to reflect uncertainties on the definition of Capital Costs, Annualized Fixed Costs and WACC;
- Reminding the uncertainties around the $LOLE_{target}$ calculation and giving a range of values around the $LOLE_{target}$ central estimate that combines ranges of values of both VoLL and CONE;

Making a clear distinction between the reliability standard set by the Member States *based on* the methodology and the output of the methodology that gives information about the theoretical $LOLE_{target}$ and the range of values around it, knowing that the methodology has some limitations

VoLL – VoLL calculation for industry and transport sectors

Many stakeholders have questioned the macro-economic calculation proposed as a base case evaluation for industry and transport sectors (surveys were an option left to the decision of the entity in charge of applying the methodology). Also, having different methodologies for different categories of consumers was questioned by some stakeholders

ENTSO-E position

Following the public consultation, ENTSO-E proposes to use the Stated Choice Methodology (surveys) for all categories of consumers in order to get very detailed data about VoLL for all categories of consumers.

VoLL – VoLL estimation and type of surveys

Some stakeholders point out a potential contradiction between the Willingness to Accept (WTA) approach proposed in the methodology and the VoLL definition in the Clean Energy Package, referring to the Willingness to Pay (WTP) concept. On the other hand, some stakeholders supported ENTSO-E's proposal, saying that WTA estimates are more statistically robust and more appropriate than the WTP results in policy terms for setting a VoLL as an input to security of supply. Finally, other stakeholders pointed out that various methods have their own merits and that none should be preferred and chosen in the methodology, or at least that additional methods could be used to gain insight into the uncertainties around VoLL estimation

ENTSO-E position

ENTSO-E had initially proposed the use of WTA because ENTSO-E thinks this is a relevant method to evaluate the disturbance of the consumers if the reliable service they currently enjoy were to be interrupted, in opposition to "WTP" questions which could lead to protest answers and are acknowledged to give underestimated values for public goods.

Though, different methods of conducting surveys indeed give various estimates with respective merits for the different methods. In the objective of transparency, ENTSO-E proposes to focus on some methods so that estimates between different countries are more easily comparable.

Following the public consultation, it is now recommended to use several cost-estimation methods on each category of consumers in order to collect more data and improve the robustness of the evaluation. The main estimate would be the one obtained through Direct Worth methodology and the answers from WTA/WTP questions will be helpful to give insights on the uncertainties of the evaluation. This proposal follows guidelines issued by the Council of European Energy Regulators in 2010.

CONE – Definition of candidate reference technologies

Some stakeholders point out that the methodology proposed by ENTSO-E should not limit candidate reference technologies to only merchant ones. The main argument is that any technology that can contribute to adequacy and therefore reduction of lost load should be considered as a potential reference technology. Policy technologies could be included as candidate reference technologies if no subsidy or any kind of state aid support are taken into account in the CONE calculation

ENTSO-E position

ENTSO-E considers that no discrimination should be made between different technologies. Following the public consultation, ENTSO-E proposes to precise the conditions by which reference technologies should be chosen. In particular, ENTSO-E will replace the notion of "merchant" technology by "non-policy technology": any technology could be considered as a reference technology as long as it does not benefit from public support.

Reliability standard – Exhaustivity of the LOLE formula

Some stakeholders mention that the formula proposed to calculate LOLE (LOLE = CONE/VoLL) does not exhaustively reflect the economic optimum the electric system could reach. In particular, stakeholders mention the need to take into account variable costs, energy constraints and interconnectors more explicitly in the calculation of the LOLE formula.
Some stakeholders point out that the same level of transparency and robustness should be required for the calculation of the Reliability Standard as for the calculation of VoLL and CONE.

ENTSO-E position

ENTSO-E had already identified that the LOLE formula (LOLE = CONE/VOLL) does not reflect all specificities of each national electric system. Article 18.3 already mentioned four conditions of validity of the LOLE formula. Given uncertainties affecting the LOLE value captured by the confidence interval, ENTSO-E stresses that corrections of the LOLE formula need to be implemented only if their effect is not negligible compared to the confidence interval.

In any case, the details of these corrections will depend on the specificities of each electric system and cannot be described explicitly. If such corrections are to be implemented, the methodology as well as the data used should be robust and transparent.

In the new version of the methodology, ENTSO-E has clarified the way variable costs should be taken into account in the LOLE formula (Article 17.8 and Appendix 3 – Article 1.iii):

- Some technologies (e.g. DSR) could have variable costs that are non-negligible compared to the benefit of their activation. The LOLE formula shall be adapted to take into account these variable costs:

$$LOLE = \frac{CONE}{VoLL - VC}$$

- On the other hand, some storage technologies (e.g. electrochemical batteries) bring a reduction in costs C for demand and supply adequacy and should therefore lead to a decrease of the CONE value as described by the following formula:

$$LOLE = \frac{CONE - dC/dQ}{VOLL}$$

ENTSO-E has also clarified the notion of CORP (Cost of Renewal / Prolongation) and the associated methodology in case no new mean is required to reach the economic optimum.