**IFIEC Europe answer to the ENTSO-e consultation on the proposal for the VoLL, CONE and Reliability Standard Methodology**

IFIEC Europe would like to thank ENTSO-e for this consultation on the proposal for the VoLL, CONE and Reliability Standard Methodology. IFIEC Europe wants to stress the importance of these methodologies, as they will be instrumental in the European and national resource adequacy assessments. IFIEC Europe also wants to stress that this consultation and its answer to this consultation are only touching on high level principles, whereas the proof of the pudding will be in the eating, when these methodologies will be applied to the European and/or national electricity markets. It is of the utmost importance that also the translation of the described principles into operational models, input collection efforts etcetera is conducted in a thorough way in order to ensure that all relevant data are used but also that no (voluntary or involuntary) over- or undershooting is created in the implementation phase.

With respect to the definitions and interpretations, IFIEC Europe has some questions. The first one is related to the cost of new entry (CONE), which takes into account the total annual net revenue per unit of de-rated capacity, where it is unclear which gross revenues are taken into account, specifically those revenues coming from delivery of ancillary services (balancing, reactive power, blackstart, …), as these revenue streams also ensure the economic viability of assets and are non-negligible on market level. The second question related to the Country Risk Premium, where its is unclear **how** this will be calculated and which country/countries will be considered as the reference. With respect to the definition of Demand Side Response (DSR), IFIEC Europe does agree with the proposed definition, insofar it is clear that this refers to voluntary and remunerated DSR (through the market or system operators); involuntary and/or non-remunerated curtailment is not considered by IFIEC Europe as demand side response. With respect to the definition of Energy Not Served (ENS), IFIEC Europe does not agree to the extent that only market-based resources are considered, whereas it is clear that also non-market-based resources, including e.g. strategic reserves but also other system reserves and even other options in the arsenal of system operators, should be considered as these also influence the ENS. In this context, it is very important for IFIEC Europe to make a very clear distinction between Expected ENS, which is calculated in advance, and the real ENS that is observed in the real time timeframe, which is in the end the only relevant measure. This means that if an analysis is conducted based on the day-ahead market timeframe to determine the Expected ENS, it is clear that this overestimates the potential ENS, as all measures that can still be taken after the closing of the Day-Ahead timeframe in order to alleviate or even completely avoid any ENS are discarded. With respect to the definition of Value of Lost Load (VoLL), IFIEC Europe wants to stress that the European Commission defines VoLL as “*the maximum electricity price that customers are willing to pay to avoid an outage*”, thus as the price point at which the consumer is indifferent between paying for electricity and voluntarily stopping consuming.

On VoLL in general, IFIEC Europe wants to stress that for each individual consumer, an individual VoLL can be calculated. Splitting all consumers in a limited number of categories is already a simplification, especially for industrial consumers where very different processes and operational arrangements lead to diverging VoLL even within this group, meaning that at points different from the “system VoLL” individual consumers will start to stop consuming, thus voluntarily reducing the demand and in consequence the stress on the system. IFIEC Europe further also wants to stress that the impact of the duration of inadequacy, most likely periods of occurrence of inadequacy and the pre-notification period for inadequacy will have a fundamental impact on the level of VoLL. An unexpected/unannounced incident will have a completely different implication than an expected/announced incident, where consumers will have the possibility to adapt their behaviour (e.g. orderly reduction of load) and thus reduce the impact/losses caused by such incident, as can also be seen in a.o. the ACER study of 2018. On the approach for the determination of VoLL for the domestic and tertiary sectors, IFIEC Europe wants to stress that it is important to have a harmonised approach across the Union while also having questions on how surveys will provide the relevant and correct data from those types of consumers; the same applies for industrial consumers, where IFIEC Europe is wondering how these surveys will be conducted and how harmonization across the European Union will be obtained while still taking into account specificities of different industrial processes. With respect to the single VoLL estimate, IFIEC Europe would like to get more clarity on the methodology to determine “*the most likely cost of an adequacy outage, during which the different categories of consumers may be affected in different proportions*”. In any case, IFIEC Europe has some **fundamental issues** with the proposal of ENTSO-e, as ENTSO-e *mentions* VoLL throughout its methodology, but does not take into account the *implications* of the definition: under an approach with a (day-ahead) price cap that increases structurally and unidirectionally and without constraint in function of the price on the day-ahead market in combination with certain thresholds, in combination with VoLL as a value that determines when consumers voluntarily disconnect (with a different individual VoLL value for each consumer), it is clear that all consumers, insofar they have a smart meter and a dynamic price contract (both of which every consumer in Europe will get at some point, but where an increasing number, and in particular industrial consumers, already have these enablers for flexibility) will all be (or become) price-elastic. Indeed, if and when prices in the day-ahead market would rise because of more system stress, as soon as the VoLL of each individual consumers (with a smart meter and an exposure to the market price) is reached, that consumer will voluntarily disconnect, thus alleviating the demand on the system and in the end allowing supply and demand to balance. In other words, market functioning, based on prices, will ensure that markets balance, no adequacy concerns exist with involuntary disconnection while also delivering the price signal for investors. The difference with the system currently in place is the fact that as of recent, price caps in the day-ahead market will not be static, allowing them to increase and thus start rising above levels where consumers voluntarily disconnect themselves (as their VoLL is reached) while also an ever-increasing part of consumers, also residential consumers, will start to be exposed to price signals and allowed to react to them (directly or via aggregators, via their suppliers or through transfer of energy solutions). This will give significant additional opportunities to balancing responsible parties to balance their portfolios. IFIEC Europe strongly believes that the work done by the European Commission in the framework of the Clean Energy Package, once fully implemented, will ensure that system adequacy will be maintained (not taking into account technical incidents) while providing all the necessary investments signals to the markets.

On the Cost of New Entry (CONE), IFIEC Europe has at this point no direct comments, as based on the content of this methodology it is unclear how the reference technologies will be determined nor how the “*most likely choices that developers will make*” will be determined. IFIEC Europe thus wants ENTSO-e to elaborate further on this point. More in general, this comment is valid for the entire methodology, as it is merely 20 pages long and does not provide any concrete insight in how all the different aspects will be treated.

On the de-rated capacity, IFEC Europe understands that a certain level of de-rating is needed, but wants to stress that this should not lead to a situation where an unduly high volume of flexibility is de-rated and thus a non-existing inadequacy issue introduced in the calculation. This also strongly links to the aforementioned fundamental issue that IFIEC Europe has with the proposed methodology under a system with a rising price cap and the application of VoLL. Moreover, IFIEC Europe also has an issue with §3 of article 12, as this leads to a circular reasoning, where one can decide (not calculate) where the outcome should be, as inputs will be adapted based on outputs until a certain (pre-defined?) value is reached?

On the reliability standard determination, IFIEC Europe takes note of the proposed formula, but wants to stress that LOLEtarget = CONE/VoLL should take into account not the single or average VoLL of the system, but must take into account the actual individual VoLL that will make consumers (categories) voluntarily stop consuming. Indeed, as soon as the VoLL of consumers is reached, they will stop their offtake and alleviate the adequacy concern. Thus, taking into account only a single/average VoLL that might be significantly higher than that of the first consumers (categories) to disconnect would lead to an unrealistic value of LOLEtarget and thus lead to an unnecessarily more stringent reliability standard than is actually warranted by the real system and in the end potentially to unnecessary (but costly) measures. For IFIEC Europe, this is also an essential element and fundamental flaw of the proposed methodology if not addressed.