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Brussels, 30<sup>th</sup> October 2019

**Subject: Actility's view on the Formal public consultation of the CRM Design Notes (Part II)**

Dear Sir or Madam,

Actility would like to thank Elia for giving us the opportunity on participating in the formal consultation for part two of the design notes on the Capacity Remuneration Mechanism. We would be glad to clarify in person any of the following points.

**1) Design Note on the derating factor**

Actility agrees with the principle of the derating the nominal capacity to the eligible volume in general. Our main concern lies in the fairness and transparency of the calculations of the derating factors through a unit-commitment model.

Having considerable experience with unit-commitment models ourselves, we know that the outcome of such simulations greatly depends on the input data and assumptions used in the model. Especially for simulations where the results depend on a small set of near-scarcity moments and where there is no consensus about the input data. Therefore, we ask for complete transparency on the input data (demand curves, power plant portfolio, storage units, DSR units, renewable generation, fuel prices, imposed reserve requirements and imports) and the renewable and load curtailment cost. Currently, the unit-commitment model is largely lacking in transparency and therefore hard to be evaluated.

**Recommendation:** The organisation of a workshop where Elia explains the chosen modelling assumptions and input data.

Secondly, for the derating factor of the thermal units planned outages are not considered because they are assumed not to be planned during near scarcity moments which is later defined as winter. However, Elia still reserves itself the right to perform one availability test during summer, while this period is not considered as a near-scarcity moment. Also, as can be seen on the ENTSOE transparency websites, there are clearly multiple cases of CCGT's or other units having planned maintenances during the winter period (nov-mrt).

**Recommendation:** We recommend two points:

- Planned outages should be considered in the derating factor for thermal units. Historical data on availability will provide a more realistic indication during the winter period (nov-mrt)
- Remove the possibility to perform availability tests during the summer period, as they have no added value. This only provides a potential additional cost for the participants.

Lastly, Actility would like to point out a risk in the currently proposed methodology to calculate the derating factors for energy-limited technologies. In the proposed calculation methodology it is implicitly assumed that additional energy-limited capacity would need to be activated for the whole duration of a near-scarcity moment,

it assumes thus scarcity as a lumpy block. In reality, there will be an interplay with capacity which can provide a “base-load” during a near-scarcity moment while additional energy-limited capacity can cover the “peak-scarcity moments” (right part of figure). This can be illustrated by the following figure where a scarcity moment of six hours is shown. On the left, there is a theoretical shortage of 60 MWh while on the right, there is a more realistic shortage of 41 MWh.

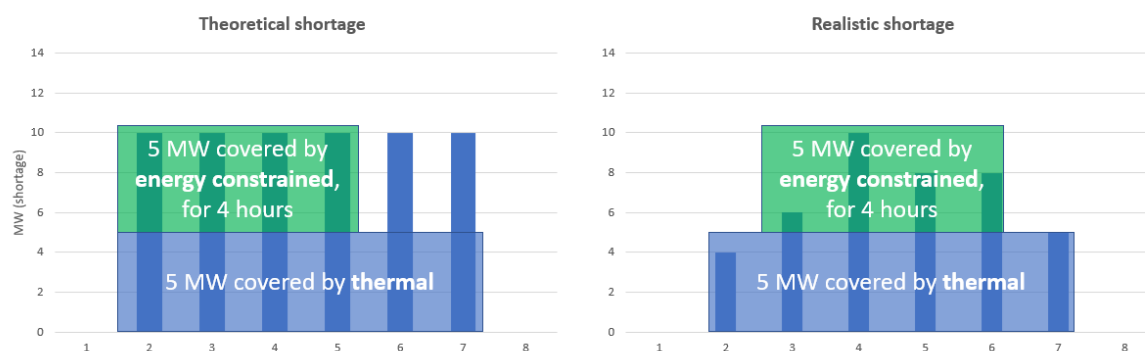


Figure 1: Comparison of assumed theoretical shortage (lumpy block) vs a realistic shortage (spiky nature). In the theoretic case, the energy constrained unit only covers 4 of the 6 scarcity hours. In the realistic case, the energy constrained unit covers all hours when it is needed. Computing the derating factors based on the theoretical shortage model will induce overprocurement of capacity and will thus lead to additional cost for society.

Underestimating the contribution of energy-limited capacity will lead to more nominal volume contracted and thus a higher price of the CRM-scheme. The derating factor of energy-limited assets should thus be determined with great care, taking into account the spiky nature of a shortage.

	Underestimated derating factor [e.g. 50%]		Correct derating factor [e.g. 90%]	
	Nominal contracted volume	Derated contracted volume	Nominal contracted volume	Derated contracted volume
Energy constrained	1 000	500	1 000	900
Thermal	13 000	12 500	12 500	12 100
Rest	2 000	1000	2 000	1000
Total	16 000	14 000	16 500	14 000

Table 1: In the scenario of an underestimated derating factor (left), the 1000 MW demand response is derated to 500 MW energy-constrained. In the scenario of a correct derating factor (right), the 1000 MW demand response is derated to 900 MW. When energy-constrained volumes are correctly derated, the additional contracting of approximately 500 MW thermal capacity (nominal) can be prevented, strongly reducing the CRM cost while still providing sufficient adequacy.

**Recommendation:** We recommend to reconsider the methodology for the calculation of the derating factor of energy-constrained units, explicitly taking into account the spiky nature of shortages.

## 2) Design note on Prequalification and Pre-delivery monitoring

For the pre-delivery monitoring, Actility asks to make clear how exactly the delivery of DSR-services will be monitored. We propose to have as a prerequisite for approval at the end of the monitoring phase 1 to have an SLA signed with the DSR-services provider.

## 3) Design note on the Auction Process

During the last Task Force CRM there was great haziness and discussion about the volume division between the Y-4 and Y-1. We would like Elia to clarify the exact method it will follow to differ the volumes between the Y-4 and Y-1 auction, preferably illustrated with an example in the form of a backward calculation. Moreover, once the method of the exact volume division between the auctions is clarified, we would like to have a proposed

methodology on how this volume division will be translated to the shape of the demand curves in the Y-4 and Y-1 auction.

Recommendation: Clarify the method and provide an example for the volume division for Y-4 and Y-1. Explain as well how this volume division will be translated in the Y-4 and Y-1 demand curves.

#### 4) Design note on the Payback Obligation

In the first order, Actility opposes the payback obligation for DSR, just as in the capacity scheme in Ireland. Such a payback obligation will create financial uncertainties and exposures which cannot decently be covered/hedged or will influence the hedging methodology of Actility and its customers.

In order for Actility to be able to fulfill this Payback Obligation Actility should first be able to receive the revenues which ELIA argues are windfall profits. This requires an exposure to the DAM-price for the full volume offered. This cannot be realistically expected.

- Our Assets being offered in mFRR are not exposed to DAM prices and will hence not necessarily receive the benefit of a spike in DAM prices
- Our larger assets which today already have a DAM exposure lose the possibility to source a (large) volume from the DAM and should hedge their consumption with forward products. When this is not done they will not be able to receive any revenues following a price spike in DAM prices.
- When the DMP of the flexibility is higher than the strike price the aggregator will not receive any revenues with the DAM clearing price below the DMP. Hence the financial exposure.

Therefore it is not always correct to speak of a pay-back obligation as the aggregator has not necessarily profited from a double remuneration through both CRM as DAM markets. Which is the case for conventional generation units participating in this scheme.

In the second order, when the Payback Obligation will be implemented, Actility asks to take into account the following points.

First, the strike price should be sufficiently high, higher than the most reasonable expensive demand-response DMP<sup>1</sup>. As indicated in the first point, most DR units have no exposure to the DAM, they will thus not receive the additional profit from not consuming during hours with DAM-price above strike price. Moreover, even if a unit is exposed to the DAM but its DMP is higher than the strike price, the unit does not necessarily receive any profit for prices above the strike price because it is not necessarily activated. Lastly, we fear that a low strike price which will be triggered frequently will increase the administrative costs for smaller participants, like aggregators, while the money transfers will not be of substantial value.

Second, Actility considers the percentage range of reasonable volume in the method of calibration of the strike price as too broad, increasing uncertainty for the market players. Actility proposed to make the range narrower to [80:90]%, decreasing the uncertainty on the future strike price while at the same time allowing for a sufficiently high strike price.

Lastly, Actility considers a ToE-scheme on DAM as an absolute prerequisite for the introduction of the payback obligation for DSR.

#### 5) Design note on the Secondary Market

Actility agrees with the proposed design of the secondary market. Especially the similarity with the secondary market for ancillary services is seen as a good element.

Recommendation: Keep the design note on secondary market as originally proposed by Elia.

We would like to complement Elia with the great work that is already done on this broad and complex topic and we thank you for considering the above described remarks.

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<sup>1</sup> Declared market price, as in: "Overview of Belgian CRM Design: list of definitions (update). Elia. October 2019"

Kind regards,

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