

Subject: Additional and concrete FEBEG comments on the options' matrix  
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In follow-up of the overview of the different options regarding the “Reference & Strike Price” issue, you will find here below the concrete comments of FEBEG on the matrix options. These comments complete the FEBEG answer of 21.06.2019 on its preferences on the proposed options.

### *Lack of quantitative assessment*

- FEBEG made considerable efforts to provide quantitative indications supported by objective analysis and evidence, and regrets this has not been done (or not sufficiently) for any of the other options. Therefore, without quantified levels beyond illustrative purposes or simple, stable and fact-based methodologies to derive them, no informed choice for these options can be made.

### *General comments on the matrix*

- Mix in the evaluation of the strike price and exemption: Strike price and exemption ratio separate discussions:
  - (1) simplicity and option 2: no payback obligation exemption makes that part rather easy, the multiple strike prices make the option rather complex.
  - (2): option 1 and RO principle: no payback obligation exemption violates this principle as there is no correction for FWD hedged volumes. Single strike price respects this principle as long as it is not set too high.
- Contentious interpretation of categories:
  - Technology neutrality can be about (i) ensuring that all technologies can participate (FEBEG is of the opinion that all options allow this) and (ii) there is no discrimination between technologies that can participate.
  - Also the limitation of overall cost of CRM / avoid windfall profits is subject to similar divergent interpretations. => position not sufficiently reflected in the matrix.

- Link with market functioning: two elements will aggravate the impact, irrespective of the choice of option.
  - (1) the lower the strike price, the higher the impact on the energy market.
  - (2) more strike prices increase the impact on the energy market functioning.
- Link with market functioning: differences of impacts of some options:
  - If approx. 70–85% of capacity is sold on the forward, there will be a significant difference in impact if the exemption is 0% (option 1/2) or the exemption is 70%.

	Option 1: One single Strike price formula & No payback obligations exemption	Option 2: Differentiated Strike prices formulas per technology & No payback obligations exemption	Option 3: One single Strike price formula & Fix % payback obligations exemption	Option 4: Indifference curve based on multiple Strike prices formulas & linked % of payback obligations exemption
Link with energy market functioning	<ul style="list-style-type: none"> <li>• Link with hedging could impact on energy market functioning</li> </ul>	<ul style="list-style-type: none"> <li>• Less transparent towards energy market without additional information being published</li> <li>• Link with hedging could impact on energy market functioning</li> </ul>	<ul style="list-style-type: none"> <li>• Link with hedging could impact on energy market functioning</li> <li>• But approximation based on industry's practices limit the risk</li> </ul>	<ul style="list-style-type: none"> <li>• Less transparent towards energy market without additional information being published.</li> <li>• Link with hedging could impact on energy market functioning</li> </ul>
Simplicity	<ul style="list-style-type: none"> <li>• Simple</li> <li>• Transparent towards energy market</li> <li>• No impact on secondary market</li> </ul>	<ul style="list-style-type: none"> <li>• Very complex calibration due to 'per technology' approach</li> <li>• Impact on secondary market</li> </ul>	<ul style="list-style-type: none"> <li>• Simple</li> <li>• Transparent towards energy market</li> <li>• No impact on secondary market</li> </ul>	<ul style="list-style-type: none"> <li>• Rather complex initial calibration, a.o. as more assumptions may be needed</li> <li>• It can create arbitrage opportunities for all participants to the capacity market, depending on Elia's assessment of future hourly prices and indexation factors chosen to create the "menu".</li> <li>• May be more complex towards secondary market</li> <li>• No demonstrated 1-to-1 link between hedging strategy and strike price preference</li> </ul>

RO principle	<ul style="list-style-type: none"> <li>• Respected as long as strike price not too high to dilute the effect</li> </ul>	<ul style="list-style-type: none"> <li>- Respected</li> </ul>	<ul style="list-style-type: none"> <li>• Respected as long as strike price not too high to dilute the effect</li> <li>• (Blunt) correction for forward hedged volumes avoids overshoot of the principle</li> <li>• From a pure intellectual approach there is no link to be made between the level of the strike price and the level of the exemption percentage.</li> </ul>	<ul style="list-style-type: none"> <li>• Respected</li> <li>• Correction for forward hedged volumes avoids overshoot of the principle</li> <li>• Febeg clearly indicated that linking strike price with exemption percentage does not correct for forward hedged volumes. Strike price and exemption have nothing to do with each other.</li> </ul>
Technology Neutrality	<ul style="list-style-type: none"> <li>• Requires a sufficiently high single strike price to ensure participation by high-SRMC techs</li> <li>• Strike price of 300€/MWh seems sufficiently high enough for DSR. Cfr presentation #2</li> <li>• Exposes hedged volumes to pay back obligation on income that was not generated cfr CCGT, OCGT</li> </ul>	<ul style="list-style-type: none"> <li>• No technologies a priori excluded</li> <li>• Equal treatment of technologies to be ensured</li> <li>• Quid aggregation?</li> <li>• Exposes hedged volumes to pay back obligation on income that was not generated cfr CCGT, OCGT</li> </ul>	<p>Requires a sufficiently high single strike price to ensure participation by high-SRMC techs</p>	<ul style="list-style-type: none"> <li>• If highest strike price is sufficiently high, no technologies a priori excluded</li> <li>• Free choice from the menu and homogeneous payback due to indifference curve.</li> <li>• However not all technologies have the same possibilities to capture the inframarginal rent in the DA market. This while the exemption percentages only reflect the hedged volumes which should not be exposed to the pay back</li> </ul>

Limit Overall cost of CRM  
Avoid Windfall profit

There is no mention of the transfer of revenue from the energy market to the capacity market if either the strike price is too low or hedging in the forward market is not taken into account.

- Requires a sufficiently low single strike price, to avoid windfalls for low-SRMC techs => Inframarginal rents (earnings above Short-Run Marginal Costs) are an integral part of a well-functioning electricity market. They are required to cover part of the fixed and investment costs and cannot be labelled as "*windfall profits*".
- Forward hedged volumes may be prone to paybacks not/insufficiently covered via forward prices, which may increase bid price

- If strike price is well calibrated per technology, windfall profits can be avoided => Inframarginal rents (earnings above Short-Run Marginal Costs) are an integral part of a well-functioning electricity market. They are required to cover part of the fixed and investment costs and cannot be labelled as "*windfall profits*".
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- Requires a sufficiently low single strike price, to avoid windfalls for low-SRMC techs => Inframarginal rents (earnings above Short-Run Marginal Costs) are an integral part of a well-functioning electricity market. They are required to cover part of the fixed and investment costs and cannot be labelled as "*windfall profits*".
- Fix %exemption for forward hedged volumes ignores differences in trading/risk strategies, which could be partially linked to technologies

- Required trade-off facilitates a 'natural' selection of the menu that limits windfall profits. => Inframarginal rents (earnings above Short-Run Marginal Costs) are an integral part of a well-functioning electricity market. They are required to cover part of the fixed and investment costs and cannot be labelled as "*windfall profits*".
- Allowing for taking into account the forward hedging strategy limits bid prices
- Robustness against different market views of future price duration curves?