

**Capacity Remuneration Mechanism (CRM)
State Aid Update, 2019/20 T-1 Capacity Auction
Parameters and Enduring Storage De-rating
Methodology**

**Consultation Paper
SEM-18-009**

Renewable Energy System Limited (RES) response - 13th April 2018

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Question:	RES Response
<p>3.2.1 The SEM Committee welcomes views on the following consultation question:</p> <p>1) Do you have any comments on the indicative auction timetable set out in this section?</p>	<p>RES notes that the first T-4 CRM auction for the 2022-23 delivery year is scheduled for March 2019. The contract execution for the Volume Capped DS3 procurement process is planned for May/June 2019 (Consultation on DS3 System Services Volume Capped Competitive Procurement - 29 March 2018).</p> <p>It would be best if the timeframes of the T-4 CRM could be aligned with the DS3 Volume Capped Procurement. Failing this it would at least be necessary for the T-4 auction to run after the contracts have been executed so that the Volume Capped DS3 winners have certainly before the T-4 CRM auction takes place. Otherwise there will be uncertainty that is bad for investors and</p>

	<p>thus they will be unable to provide best value to the consumer.</p> <p>RES proposes that the T-4 CRM auction for the 2022-23 delivery year is pushed back to after the contract execution for the Volume Capped DS3 procurement process in May/June 2019.</p> <p>RES thinks that the T-1 auction for the 2021-22 should be held around March 2021 so that it is in line with the other T-1 auctions. This will allow CRM participation by units that are not ready to participate in a December 2019 auction but would be ready for delivery by October 2021. More participants mean lower clearing price and thus better value for the consumer.</p>
<p>4.7.1 The SEM Committee welcomes views on the following consultation question:</p> <p>1) Do you agree with the SEM Committee’s minded to position to keep the parameters (excluding capacity requirement and de-rating factors) for the CY2019/20 capacity auction consistent with the CY2018/19 parameters?</p>	<p>No comment</p>
<p>6.4.1 The SEM Committee welcomes views on the following consultation questions:</p> <p>1) Do you agree with the proposed modification to the treatment of outages for small and embedded capacity in GB in the interconnector de-rating methodology?</p>	<p>As a general comment on interconnectors we note that both the East West Interconnector and the Moyle Interconnector have previously secured contracts in the GB capacity market. Since it possible, or even likely, for GB and Irish electricity markets to experience system stress at the same time then it is not possible for them to deliver on both contracts. Interconnectors cannot be relied upon to delivery energy into Ireland at times of stress so should not be allowed to participate in the CRM.</p>
<p>2) Do you agree with the use of a least-worst regrets approach to the choice of GB generation scenario used to set EMDF?</p>	<p>No comment</p>

<p>3) Do you agree with the approach that the EMDF need only be determined for the GB market for CY2019/20 in the absence of interconnection with other markets?</p>	<p>No comment</p>
<p>4) Do you have any response to the storage related questions raised by the TSOs in their paper, which are listed in paragraph 6.3.3 above.</p> <p>A. Do participants have any comments on the methodology for calculating DRFs for storage units as described in this paper?</p>	<p>The process for calculating is extremely complicated and there is very little transparency in how numbers are calculated. For example, it is not clear how the “Initial Marginal De-rating Factors for Pumped Hydro Storage” table (page 11) is populated or how “ΔSURP = 229 MW” (page 11) are calculated.</p> <p>We note that for the GB Capacity Market the de-rating for a 4 hour battery is 0.9611. For the CRM the DRF proposed in this consultation for 4 hours of storage is 0.698. It is not clear what makes the Irish system is so different to the GB system that this difference is required.</p> <p>We note that in the “Final Auction Information Pack v1.0” (published 1/12/2017) the de-rating for a 100MW unit would be 0.912 for a gas turbine and 0.893 for a steam turbine. It would take an 8.5 hour battery to get a 0.893 de-rating (using interpolation from 4.5 to 5 hours). Yet there is no justification given for requiring an 8.5 hour battery.</p> <p>These DRFs seem to be highly discriminatory against batteries.</p>
<p>B. In the absence of significant historical data, do participants consider it reasonable to apply system-wide outage statistics to new technologies (such as batteries)? If not, please provide alternative with justification.</p>	<p>No, RES thinks that that it is unreasonable to apply the system-wide outage statistics of an aging fleet of generators to new build assets.</p> <p>To quantify what you are proposing we looked at EirGrid’s “All-Island Generation Capacity Statement 2017-2026”. In this document forecast Forced Outage Rates are covered in section 3.7 Plant Availability on page 48 with graphs on page 49. The forecast/ projected Forced Outage Rates for Ireland are between 6% and 8%, and between 4% and 8% for Northern</p>

	<p>Ireland.</p> <p>An average Forced Outage Rate of up to 8% is significantly worse than you would expect for a new build asset.</p> <p>Since most storage assets will be built to participate in the DS3 ancillary services market, the DS3 documentation is perhaps the best place to start. We note that in the Consultation on DS3 System Services Volume Capped Competitive Procurement dated 29 March 2018, “4.3.2 Availability linked with Performance Scalar” (page 48) proposes that to get a Performance Scalar of 100% Availability needs to be $\geq 97\%$. Since assets will be designed and built specifically to meet the requirements of the DS3 services they will be built to maximise performance scalars. This would suggest that assets would be designed and built to comfortably exceed 97% availability.</p> <p>It is RES’ proposal that this 97% availability number is used until historical data for new technologies becomes available.</p>
<p>C. Regarding Storage Units with Storage Volume sizes that are not a multiple of 30 minutes: Do participants have any comments on the TSO’s preferred methodology for calculating DRFs for such storage unit, i.e. interpolating between storage sizes? What other options do they believe may be more appropriate?</p>	<p>We think that interpolating between storage sizes is reasonable.</p> <p>Additionally, for multi-year Reliability Option contracts RES proposes that there should be the option to recalculate the DRF annually. This gives scope for a project to change its DRF to reflect augmentation (the addition of extra storage capacity during the life of a project) or degradation. The system can then rely on the full capacity installed in Ireland in the early years and in the later years can procure more, if required, to meet the shortfall from degraded batteries.</p>
<p>D. Should storage units be allowed to apply a DECTOL to their De-rated Capacity? Please provide arguments to support your response.</p>	<p>The abbreviation DECTOL is not defined in this consultation paper so it is not possible to answer this question.</p> <p>RES agrees that: <i>“it would be undesirable to have a unit potentially exposed to Capacity Market penalties for meeting their obligations in the provision of</i></p>

	<p><i>system services”.</i></p> <p>The Capacity Market should be encouraging market participation, new market entrants and new technologies. We would suggest that a system like that used in the GB Capacity Market should be applied to the CRM. In the GB Capacity Market Rules there is a list of Relevant Balancing Services. This list provides a list of systems services required for system security. At times that GB Capacity Market participants are delivering a Relevant Balancing Service they are still paid their Capacity Market payment but are exempt from delivering under a GB Capacity Market System Stress Event.</p> <p>The GB Capacity Market design stands to reason. The Capacity Market payment is made for security of supply and if a unit is helping with security of supply (through a stability service) it should still receive the Capacity Market payment. It also makes sense that if a unit is providing a system stability service then it would not help the system if as soon as there was a system stress event it stopped providing stability and just delivered power. We propose that a similar mechanism be applied to the CRM preventing penalisation under the CRM for provision of system services.</p>
<p>E. Should specific DRF values be published for units with energy storage volumes of 6.5 hours or greater? Are participants aware of potential projects that might make such a change appropriate?</p>	<p>RES sees no reason to publish DRF values for units with energy storage volumes of 6.5 hours or greater.</p> <p>As highlighted in our answer to “B”, the GB Capacity Market only provides de-rating to 4 hours. It seems that the Irish CRM discriminates against storage and should be amended in line with the GB de-rating.</p>
<p>5) Do you have any response to the other energy and run-hour limited generation related questions raised by the TSOs in their paper which are listed in paragraph 6.3.5 above.</p> <p>F. Do participants consider that a unit’s run-hour limitations (due to emission restrictions or otherwise) should be reflected in the Capacity Market Auction? If so, what</p>	<p>Yes, it seems fair that all technologies are treated the same. Run limitations impact the ability to deliver capacity and therefore must be accounted for in DRFs.</p>

<p>mechanisms should be applied. If not, please provide rationale.</p>	
<p>G. Do participants have any comments on the proposed approach for de-rating DSUs with limited Maximum Down Time?</p>	<p>Again, yes, it seems fair that all technologies are treated the same. That means that technologies with limited Maximum Down Time should have this accounted for in the DRF.</p>
<p>7.5.1 The SEM Committee welcomes views on the following consultation question:</p> <p>1) Do you agree with our revised proposals for Long Stop Dates and Substantial Financial Completion dates as set out in the section, and summarised in Table 4.</p>	<p>Long Stop Dates:</p> <p>RES agrees in principle with the idea of reducing the Long Stop Dates for one-year contracts. However, we feel that one month does not give appropriate cover against unexpected/ uncontrollable delays in construction/ commissioning. RES proposes that, as with multi-year contracts, capacity providers should have to deliver on at least 85% of their capacity delivery contract. Applying this logic to a 12 months contract:</p> <p>$12 \times 85\% = 10.2$ months</p> <p>RES thinks that this should be rounded to 10 months. This means that effective from CY2019/20, the Long Stop Date for a one-year Reliability Option should be two-months after the start of the Capacity Year;</p> <p>We agree with the principle that for multi-year Reliability Options: The Long Stop Date would remain unchanged.</p> <p>Substantial Financial Completion:</p> <p>RES agrees in principle with the proposal for Substantial Financial Completion in the consultation. We do however ask that the date for Substantial Financial Completion is communicated as early as possible, preferably before the Initial Auction Information Pack. This will give</p>

	investors as much time as possible to timetable for the Substantial Financial Completion date.
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