

CMC_07_20

CMC_08_20

Workshop 12

31/03/2020



CMC_07_20 - Change in Technology Class for Awarded New Capacity

- This modification proposal provides for a change in Technology Class associated with Awarded New Capacity.
- It provides for a change in Technology Class in particular circumstances to avoid or minimise delays in the completion of Awarded New Capacity.
- A modified Connection Agreement ensures that the necessary system impacts have been assessed.
- Feedback on the proposal is welcome.



CMC_08_20 - Change of Awarded Existing Capacity to Awarded New Capacity

- We have raised this Modification Proposal for discussion and development with the RAs and industry.
- We want to ensure that it addresses issues with non-performing existing capacity but does not unintentionally create issues for otherwise performing capacity.
- Capacity Market is designed on basis that Awarded Capacity is physically backed. This means there needs to be a physical generator unit or demand side unit available.
- While there are strong physical backing provisions for Awarded New Capacity, there are limited provisions to deal with Awarded Existing Capacity that is not available as required.
 - This mod introduces a means whereby Awarded Existing Capacity that is not sufficiently available to be considered as Awarded New Capacity again.
- Currently, Termination Charges on apply to Awarded New Capacity only.
 - This mod creates a more level playing field for Existing and New to compete as existing capacity would face similar termination charges in the event that it is not delivering.



Mod New Text

I.1.4 **Non-delivery of Existing Capacity**

I.1.4.1 Where at any time during the Capacity Year either of the following occur:

- (a) the de-rated Registered Capacity of the Generator Unit is less than 90% of the Awarded Existing Capacity for a period of more than one month; or
- (b) the de-rated Availability of the Generator Unit is less than Awarded Existing Capacity for more than the 50% of the time over first half of the Capacity Year,

the System Operators shall set the Commissioning Status Flag for the Awarded Existing Capacity to Forecast and the Awarded Capacity shall be considered as Awarded New Capacity.

I.1.4.2 Where the status of Awarded Existing Capacity changes to Awarded New Capacity, in accordance with I.1.4.1, the Participant shall be required to submit an Implementation Plan, post a Performance Security and all provisions of Chapter J shall apply as if the Awarded Capacity was commissioning for the first time..

I.1.4.3 The Long Stop Date for any Awarded New Capacity arising from paragraph I.1.4.1 shall be the last day of the relevant Capacity Year to which the Awarded Existing Capacity applied.



Making available Awarded Capacity

- What does physical backing mean in the context of the Capacity Market?
 - CMC (I.1.2.1(b) talks about using reasonable endeavours to make available Awarded Capacity)
 - Should requirement be:
 - a. Available @ Registered Capacity,
 - b. Available @ Awarded Capacity or
 - c. Available @ Obligated Capacity Quantity?

Availability Req under Grid Code

- SDC1.4.3.2 (SDC1.4.3.4) Each Generator (Demand Side Unit Operator), and where relevant each Generator Aggregator, shall, subject to the exceptions in SDC1.4.3.3 (SDC1.4.3.5), use reasonable endeavours to ensure that it **does not at any time declare** in the case of its CDGU, Controllable PPM, or Aggregated Generating Unit, (Demand Side Unit), **the Availability or Technical Parameters** (Demand Side Unit MW Availability and the Demand Side Unit characteristics of its Demand Side Unit) **at levels or values different from those that the CDGU, Controllable PPM, and/or an Aggregated Generating Unit (Demand Side Unit) could achieve at the relevant time.** The TSO can reject declarations to the extent that they do not meet these requirements.
- **Broadly speaking, generator units should be available at their Registered Capacity unless the circumstances in SDC1.4.3.3 and SDC1.4.3.5 apply.**
- **Grid Code requirement takes precedence over Capacity Market Code**



Availability in Capacity Market Code

- I.1.2.1 In addition to its other obligations under this Code, a Participant shall, with respect to each of its Capacity Market Units:
...
 - (b) dedicate and use its reasonable endeavours to make available the Awarded Capacity;
- Chapter I also defines Obligated Capacity Quantity but it does not use it here; it uses the term “make available the Awarded Capacity”.
- The statement “make available the Awarded Capacity” should not be construed necessarily to mean that Availability should = Awarded Capacity

Example 1

- Consider a 100 MW unit with a Max On Time of 2 hours. It is derated to 57.1 MW and clears Awarded Capacity = 57.1 MW.
- Due to the shape of the demand curve, we calculate the contribution of the above unit to adequacy where it is run at 100 MW for 2 hrs as 57.1 MW.
- If this unit were to declare available at 57.1 MW (for 2 hrs), its contribution to adequacy is only 32.6 MW.
- So to “make available the Awarded Capacity” is to declare Availability = 100 MW



Example 2

- Consider a 100 MW unit with a de-rated capacity of 90.5 MW that clears Awarded Capacity of 90.5 MW.
- Due to a Forced Outage Rate used to calculate de-rating factors, we count this unit when available at 100 MW as contributing 90.5 MW. At any time, there is probability that the unit will be forced out and will be unavailable.
- If this unit were to declare availability = 90.5 MW, it would only contribute 81.9 MW to adequacy.
- So to “make available the Awarded Capacity” is to declare Availability = 100 MW



Obligated Capacity Quantity

- Total Awarded Capacity is based on the Capacity Requirement. The Capacity Requirement and de-rating factors are calculated together and take into account forced outages, scheduled outages and run hour limits.
- At any time, some units will not be available due to scheduled or forced outage or run time limits. The remaining units are required to be fully available to maintain adequacy. This is a fundamental assumption of the capacity requirement and de-rating calculation.
- Total Obligated Capacity Quantity reflects the total capacity that needs to be available and delivered in any period to ensure reliability.
- Obligated Capacity Quantity does not allow a unit to reduce availability below what is allowed for in Grid Code. The reason for this is: the unit is required to cover the units that are not available at that time for scheduled outages, forced outages or run hour limits. In turn, other units will cover their periods of unavailability (as allowed for under Grid Code).
- Units should continue to declare their full availability at all times to ensure the system continues to operate within operational security standards.



Making available Awarded Capacity

- Under Grid Code, units are required to declare their Availability at the level that Generator Unit could achieve at that point in time i.e. the Registered Capacity in the Op Cert.
- Awarded Capacity is based on units being available at their Registered Capacity and takes into account their forced outages, scheduled outages and run hour limits.
- Therefore, “Making available Awarded Capacity” means the de-rated Availability = Awarded Capacity.
- Where the full capacity of the unit has Awarded Capacity, this means the de-rated Availability = Registered Capacity, which is consistent with Grid Code.



Proposed measures of non-performance

- If
 - de-rated Registered Capacity is reduced below 90% of its Awarded Existing Capacity (which is the standard applied for Substantial Completion) for a period of more than one month
- OR
 - de-rated Availability (as per TSC) is below Awarded Existing Capacity for more that 50% of the time over the first half of the Capacity Year (i.e. 6 months),
- Then, Awarded Existing Capacity would be no longer be considered Existing and would be held to account in the same manner as Awarded New Capacity.
- We would welcome views on the above approach.