

Capacity Market: A Helicopter Guide for the Capacity Auction

Date 04/03/2019
Version 1.3





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1. Purpose of this Document

The purpose of this document is to provide details relating to the processes taking place during a Capacity Auction.

2. Pre-Auction Activities

A Party must register and qualify prior to taking part in any Capacity Auction. Information relating to registration and qualification can be found via the links supplied within the Supporting Documentation section at the end of this guide. Initial and Final Auction Information Packs will be released for each Capacity Auction as set out in the Indicative Capacity Auction Timetable. The Auction Information Packs (AIPs) will include set parameters, deadlines and process timings which will apply to the Capacity Auction.

3. Capacity Market Platform

All Capacity Auctions will take place via an online program known as the Capacity Market Platform (CMP). CMP is provided by the vendor Unicorn Systems. Access to CMP is granted through the registration process. All users will require a user name, password and digital certificate in order to log into the CMP successfully.

The CMP must hold set Auction Parameters and information prior to each Capacity Auction so that the Auction can be conducted in line with the Capacity Market Code (CMC). The System Operators (SOs) will ensure that the system is prepared accordingly.

4. When will a Capacity Auction take place?

Capacity Auctions will take place at regular intervals for specified Capacity Years which will be up to four years in advance. Proposed Auction dates and associated process timescales and deadlines are confirmed by the Regulatory Authorities (RAs) and subsequently published within the AIPs.

5. Making Capacity Auction Offers

5.1. How are Capacity Auction Offers made?

Once qualified, a Capacity Market Unit (CMU) will be able to submit Capacity Auction Offers within CMP whilst the Auction Offer Bid window is open. The Offer Bid window will be open for 5 Working Days and will close at 10am on the fifth day. Please refer to the Capacity Auction Timetable within the AIPs for confirmation of the Capacity Auction Submission Commencement and Submission End dates. Section F.7 of the CMC confirms Offer requirements in full.

5.2. How many Offers can be made?

A maximum of five Auction Offers can be submitted per individual CMU. Offers should rise incrementally in price in order for the Offer(s) to be accepted by the CMP. The CMP will flag Offers which do not comply with the requirements of the Code via an on-screen error message which will contain specific details of the Offer rejection reason.



If the CMU comprises both Existing and New Capacity, the maximum number of Offers will still be capped at five. Offer steps must not exceed the Auction Price Caps set within the AIP.

The total quantity for all Offers can be equal to or less than the Net De-Rated Capacity value but should be at least equal to the Firm Offer Requirement.

5.3. Existing Capacity

For Existing Capacity, participation in the Auction beyond their Firm Offer Requirement is voluntary. The maximum quantity that can be offered is the Net De-Rated Capacity (Existing).

5.4. New Capacity

Participation in the Capacity Auction is voluntary for qualified New Capacity. The maximum quantity that can be offered is the Net De-Rated Capacity (New). The allowance for voluntary participation recognises that newly built capacity projects could fail between qualification and the Capacity Auction delivery period.

5.5. Flexible / Inflexible Offers

Offers can be either Flexible or Inflexible. A Flexible Offer enables the CMP to partially accept a quantity amount during the determination of Auction outcome. An Inflexible Offer means that the CMU wishes for their entire Offer to be accepted, or not accepted at all. In terms of the Auction calculation following the Offer gate closure, Inflexible Offers will be evaluated first with the Flexible Offers being taken into consideration last.

5.6. Auction Price Cap

Offers can be made up to the Auction Price Caps for both Existing and New Capacity, but they must not exceed it. The Auction Price Cap is set by the RAs and confirmed within AIPs.

An Exception Application can be made to the RAs during the Qualification period for a Unit Specific Price Cap. This is a higher Price Cap, set on a case by case basis, between the normal Existing Capacity Price Cap and the Auction Price Cap. The Unit Specific Price Cap Exception Application will only be considered for units where their net going forward costs are not supported by the normal Existing Capacity Price Cap or where the unit has a dual capacity rating. If your CMU has an approved Unit Specific Price Cap, you will be able to enter your offers up to the cap, but not exceed it.

5.7. Maximum Capacity Duration

Maximum Capacity Duration exceptions are assessed and approved by the RAs. Each Auction Offer step must include the duration of the capacity. If the Maximum Capacity Duration of the capacity associated with that step is one year, the duration of the offer step must be entered within CMP as one year. If the Maximum Capacity Duration of the capacity associated with the step is 10 years, the duration of the offer step can be submitted as any value between one year and 10 years. A CMU with both Existing and New Capacity could have some steps with duration of one year and others with longer durations.

5.8. If a CMU has qualified, can they choose not to participate?

All qualified Existing Capacity is obliged to submit Auction Offer(s). Participation is voluntary for New Capacity only.

5.9. What happens if an Auction Offer is not submitted?

The CMP will submit a set of offers on behalf of a CMU with qualified Existing Capacity should they fail to place an offer during the Capacity Auction Submission window. The offers will automatically be generated and will be equal to the Firm Offer Requirement at a price equal to the applicable Auction Price Cap for that capacity. These automatic offers will be flexible and will have capacity duration of one year. Please see Section F.7.1.3 of CMC for further information.

6. Auction Processes

The Auction uses a Demand Curve reflecting the value of capacity to the system, Locational Capacity Constraints and offers of qualified capacity. The Auction is solved in two stages; an Unconstrained Auction is solved first, which determines the Auction Clearing Price, and then a Constrained Auction is solved, which determines if offers cleared within the unconstrained Auction has adequately cleared capacity to satisfy local constraint area requirements.

6.1. Unconstrained Auction

The Unconstrained Auction is solved ignoring inflexibility and without local capacity constraint to determine an Auction Clearing Price. The Auction Clearing Price is the price of the last offer scheduled at the intersection of the demand and offer curves. The maximum price that the Auction can clear at is the Auction Price Cap. The last Offer scheduled is called the Price Setting Offer.

6.2. Constrained Auction

The Constrained Auction will clear extra capacity if required to satisfy Locational Capacity Constraints (e.g. minimum limits on capacity cleared in Northern Ireland (NI), Dublin and the rest of Republic of Ireland (ROI)). These cleared offers will be settled at their Offer Prices. This ensures that sufficient capacity is procured in geographical regions where supply into the region is restricted due to transmission or operational constraints. Locational Capacity Constraint areas are determined and approved by the RAs. The constraint areas are published within the AIPs.

6.3. How are the Auction Results calculated?

The Auction calculation process evaluates all Offers against a Demand Curve to achieve the optimal outcome for the Auction Results. There are a number of complexities that have to be dealt with. For example, the Demand Curve takes price/MW volume/Unit Specific Price Caps etc. into consideration to ensure that the required capacity volume is achieved as well as ensuring that all Local Capacity Constraints have been satisfied.

In principle, all of the capacity to meet the Demand Curve scheduling could come from one part of the market, for example all in the ROI, and nothing in NI. The Constrained Auction calculation will not allow such a result.

There is another possible complexity that may occur during the Auction calculation process which is known as “lumpiness”. This is where a CMU places an Inflexible Offer which cannot be partially awarded. In this scenario, the Auction calculation process looks to either exclude it, fully schedule it, or if it is excluded, to look at scheduling other offers to achieve the optimal outcome. This may mean that the Inflexible Offer might be fully excluded and some smaller, higher priced units may be awarded capacity.

In addition, the “Clean” or “not Clean” status of a CMU has an impact on the Auction outcome during an offer tie situation at the actual Auction Clearing Price. Within both the constrained and unconstrained Auction, the calculation will look to the clean offer first. If that doesn’t resolve the tie, the offer steps are scheduled based on calculations which seek to achieve the best optimal outcome. If again this fails to resolve the tie offers, the CMP will look to the duration of the Offers. Finally if those resolution calculations fail, the CMP will take the Offers randomly.

Section 4 of the [Industry Guide to the I-SEM](#) provides additional detail with regards to the calculation methodology of both the Constrained and Unconstrained Auctions.

7. Auction Results

7.1. Where can I obtain Auction Results?

Provisional Auction Results are published within CMP to each Participant no more than 3 Working Days following offer gate closure. The overall Auction Results will then be provided to and reviewed by the Capacity Auction Monitor along with the RAs and will either be approved or rejected. If rejected, the RAs may instruct the SOs to re-run the Capacity Auction. Participants will be advised of the rejection by the SOs and the RAs will publish the reason for any rejection.

Where an Auction is repeated, the set of results will be reviewed again by the Capacity Auction Monitor and RAs. Per the CMC, the approval process is to take no longer than four weeks following the completion of the Auction.

The Final Capacity Auction Results relating to a Participant are final and binding on that Participant.

Once approved, Participants will be able to view their individual Final Auction Results via the CMP. The SOs will also publish a Final Capacity Auction Results report on their website in line with CMC requirements.

8. Post-Auction Awarded Capacity

8.1. Awarded New Capacity - Performance Security and Implementation Plan

Following the publication of the Final Results, Providers of New Capacity awarded in the Auction must post a Performance Security bond in line with the parameters set within the AIPs. Units with New Capacity must also have provided a robust Implementation Plan during the qualification application stage. Failure to provide the Performance Security may result in the termination of the Awarded Capacity, in line with J.6 section of CMC.

Information on how to post Performance Security (either a Reserve Account or Letter of Credit) is provided in an information pack directly to Participants that are awarded New Capacity in a Capacity Market Auction.

8.2. Termination Charges for Awarded New Capacity

Termination Charges are set out within the AIPs. Should a Termination Charge become applicable due to the failure to deliver on an Awarded Capacity commitment, the relevant SO will invoice the Participant for the charge value. Should the Participant fail to pay the invoice, the charge will be drawn from the posted Performance Security.

8.3. Capacity and Trade Register

Participants will be able to view their individual Awarded Capacity details within the Capacity and Trade Register within CMP. The SOs will use the CMP Capacity and Trade Register for capacity settlement as it holds full details of the Capacity Auction Results. Awarded Capacity will be marked as “active” for Existing Capacity whilst New Capacity will be marked as “pending” until such time as the unit is fully commissioned. Capacity that is not yet commissioned will not receive a Capacity Payment.

The SOs will be responsible for maintaining the Capacity and Trade Register.

9. Capacity Settlement

Capacity providers receive a monthly Capacity Payment based on the capacity provider’s Awarded Capacity and the Capacity Auction Price. Payment is made regardless of whether the capacity provider is scheduled to physically deliver energy. Payments are not indexed for inflation, fuel costs, or other cost drivers: capacity providers bear the risk of changes to costs and the value of money over the term of the obligation.

Settlement can also include difference charges if the Reference Price exceeds the Strike Price. In such an event, capacity providers also pay a capacity difference charge for any undelivered capacity. Difference charges will be settled weekly to align with the billing period for energy payments and charges. Please see Section 4.6.15 of the [Industry Guide to the I-SEM](#) for further information.

10. FAQs

A [Frequently Asked Questions - Working Document](#) was published in June 2018. An updated document will be uploaded to the website in advance of each Auction.

11. Supporting Documentation

This document should be read in conjunction with the following publications:

- Initial Auction Information Packs (published in advance of each relevant Auction [here](#))
- Final Auction Information Packs (published in advance of each relevant Auction [here](#))
- Capacity Market Registration Guides included in the Registration & Qualification Forms are available [here](#).
- [Capacity Market: A Helicopter Guide to Understanding the Capacity Market](#)
- [Capacity Market: The Quick Guide to Understanding Qualification](#)
- [The Capacity Market Code \(CMC\)](#)
- [Industry Guide to the I-SEM](#)
- [Agreed Procedures:](#)
 - [CMC Agreed Procedure 1 – Registration](#)
 - [CMC Agreed Procedure 2 – Default and Suspension](#)
 - [CMC Agreed Procedure 3 – Qualification and Auction Process](#)
 - [CMC Agreed Procedure 4 – Communication Channel Qualification](#)
 - [CMC Agreed Procedure 5 – System Operation, Testing, Upgrading and Support](#)
 - [CMC Agreed Procedure 6 – System and Communication Failures](#)

The Capacity Market is governed by the Capacity Market Code (CMC). Please refer to the CMC as well as the Agreed Procedure documents for comprehensive Code items, definitions and procedure details.

The Registration Guides provide a point of reference for completing the Registration and Qualification processes.

The Initial and Final Auction Information Packs are also an essential point of reference as they outline values and parameters set for each individual Capacity Auction.

Approved Capacity Auction Timetables are published in advance of each Capacity Auction and can be viewed on the SEMO website – [here](#).

