

# I-SEM Training

## *Capacity Auction Offers*

August 2017



# Chapter 1: Introduction

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# Foreword

## **Capacity Auction Offers**

The focus of the “Capacity Auction Offers” course relates to the form of offers allowed to be offered in to the Capacity Market from Qualified Capacity Market Units.

It is assumed that the reader has already completed the Capacity Market course on Registration and Qualification.

## **Currency**

This learning material focuses on examples to illustrate concepts rather than providing comprehensive coverage of every topic. The Capacity Market facilitates settlement in both Euro and Sterling. As the market internally operates in Euro the examples tend to be presented in Euro. However, in practice participants in Northern Ireland will see a Sterling equivalent price.

# Learning Objectives

This training session will help you appreciate:

- The allowed form of Capacity Offers for each Capacity Market Unit
- The nature of Flexible and Inflexible offer steps.
- How New Capacity can offer for Awarded Capacity of different durations.

After this course you should be in a more informed position to follow the more detailed description of the Capacity Market in the Instructor Led Training.

# Governing Rules

The Capacity Market arrangements are governed by a set of rules known as the **Capacity Market Code** (CMC) [<https://www.semcommittee.com/news-centre/publication-i-sem-crm-capacity-market-code-decision>]. The CMC defines obligations and responsibilities of the Parties to that code, including the registration, qualification, operation of the capacity market and secondary trade, and the obligations on those awarded capacity. Settlement arrangements are covered under the **Trading and Settlement Code** (TSC) [<https://www.semcommittee.com/news-centre/publication-i-sem-trading-and-settlement-code-amendments-decision-paper>].

The CMC is supported by a set of Agreed Procedures. The most relevant of these for this training module is **Agreed Procedure 3 “Qualification and Auction Process”**. [<https://www.semcommittee.com/news-centre/publication-i-sem-crm-capacity-market-code-decision>].

It is important to note that these Agreed Procedures are different to the set of Agreed Procedures that support the TSC.

## Some Key Terms from Qualification

Term	Description
Existing Capacity	Capacity that has been commissioned under the Grid Code.
New Capacity	Proposed capacity that is yet to be commissioned under the Grid Code.
Net De-Rated Capacity (Existing)	The capacity qualified to be offered from Existing Capacity.
Net De-Rated Capacity (New)	The capacity qualified to be offered from New Capacity.
Maximum Capacity Duration	The maximum period that a Participant can seek to be Awarded Capacity. This is always 1 Capacity Year for Existing Capacity and can be either 1 or 10 Capacity Years for New Capacity.
Firm Offer Requirement	A measure of the amount of capacity that a participant can offer into an auction for which firm network access is held.

These terms are explained in more detail in the Capacity Market course on Registration and Qualification.

# Chapter 2: Form of Offers

# Key Features of Capacity Offers - (1/2)

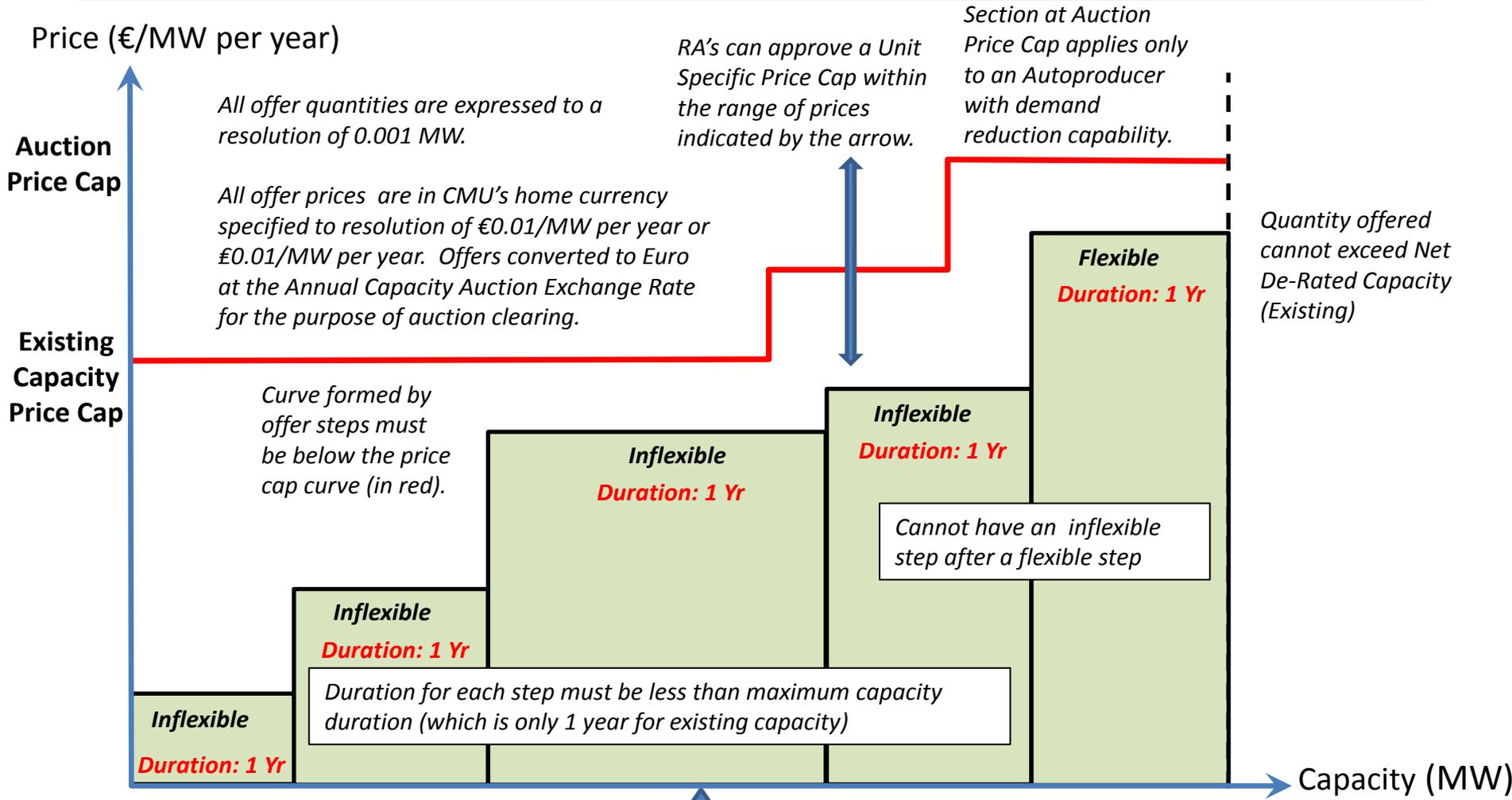
- Offers are issued by Capacity Market Unit.
- Each Capacity Market Unit can offer up to five offer steps.
- Each offer step must be associated with either Existing Capacity or New Capacity:
  - Net De-Rated Capacity (Existing) limits what can be offered from Existing Capacity
  - Net De-Rated Capacity (New) limits what can be offered from New Capacity.
- Each offer step can have a different Capacity Duration, being the number of Capacity Years the awarded capacity will apply for if cleared. This cannot exceed the Maximum Capacity Duration of the Existing Capacity or New Capacity as applicable:
  - Maximum Capacity Duration is set in Qualification and will be 1 year for Existing Capacity and either 1 or 10 years for New Capacity.
- Existing Capacity that has a non-zero Net De-Rated Capacity (Existing) must offer at least the lesser of its Firm Offer Requirement and its Net De-Rated Capacity (Existing). If it fails to successfully submit an offer then auction system will automatically create an offer to cover this capacity, with a price equal to the applicable price cap over that range.

## Key Features of Capacity Offers - (2/2)

- An offer step can be Flexible (take any quantity within it) or Inflexible (take all or none):
  - Inflexible offer steps give a participant certainty as to how much it will clear if it clears.
  - But given an otherwise identical Flexible and Inflexible offer where only 99% of the offered quantity is needed then the auction will take 99% of the Flexible offer and will not clear the Inflexible Offer.
- An Inflexible offer step cannot be at a greater price than a Flexible offer step for a CMU. Thus all Inflexible offer steps for a CMU (if any) will clear before any Flexible offer step from the same CMU.
- No two offers can have the same price for the same CMU.
- The quantities in P,Q offers are incremental quantities for that step, but taken together define a cumulative quantity with increasing price, e.g. for a set of P,Q offers of (€1/MW, 10MW), (€3/MW, 20MW) and (€5/MW, 10MW), the CMU is willing to provide up to 10MW of capacity for a price of €1/MW, to provide up to (10 + 20 =) 30MW of capacity for a price of €3/MW, and to provide up to (10 + 20 + 10 =) 40MW of capacity for a price of €5/MW.
- A higher priced offer can never clear until all lower priced offers for the same CMU clear.

The following examples of offers are illustrations of how 5 offer steps might be used for different CMU.

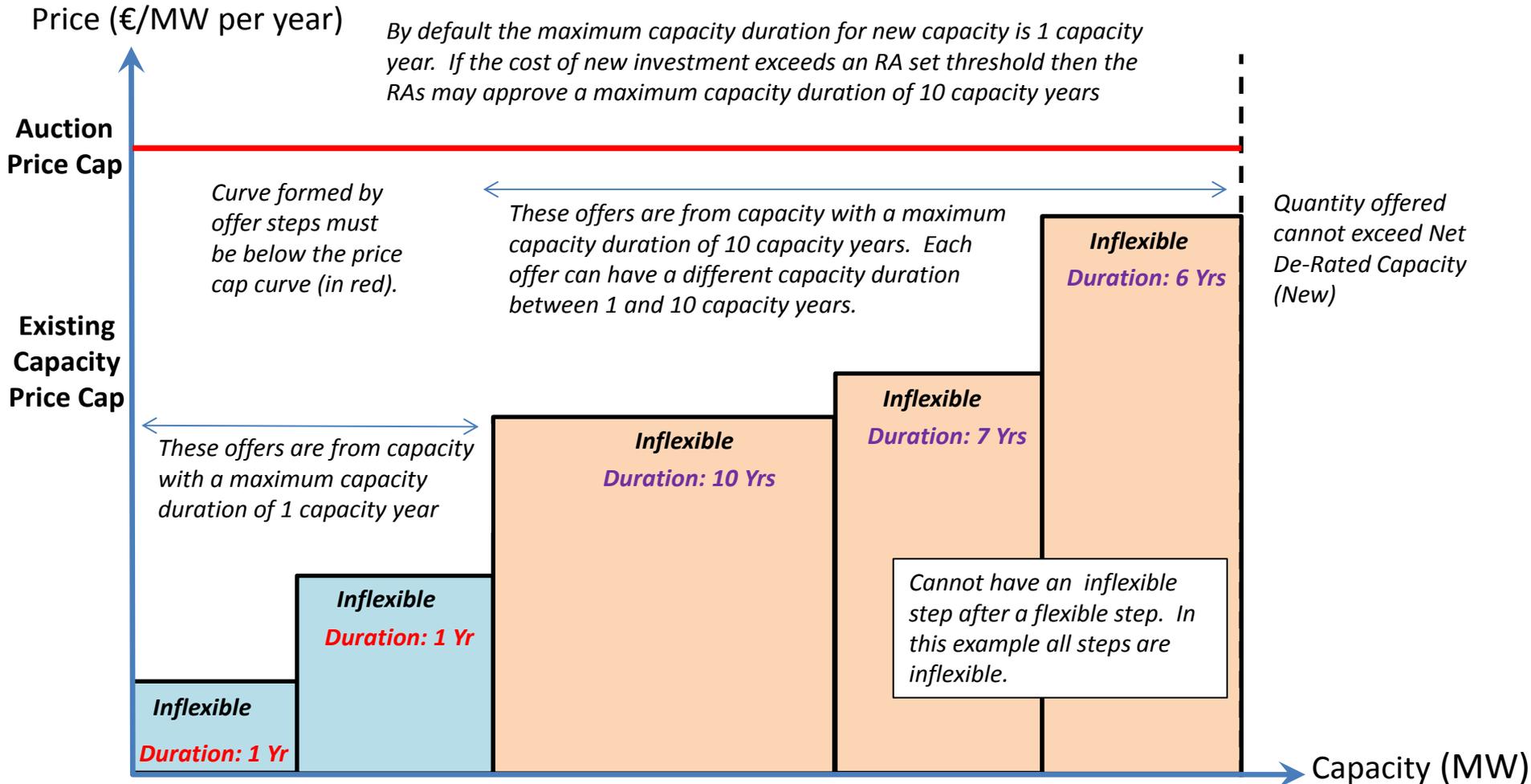
# Capacity Auction Offers - Existing Capacity (excluding DSU)



# Capacity Auction Offers for Existing Capacity

- The prior slide shows a CMU which only comprises Existing Capacity.
- It has 5 offer steps it can use but does not have to use all of them, but must cover its Firm Offer Requirement and cannot offer more capacity than its Net De-Rated Capacity (Existing).
- Normally the Existing Capacity Price Cap will apply for all existing capacity:
  - An Autoproducer with demand response capability approved in Qualification may offer it at the Auction Price Cap.
  - A unit may have had a Unit Specific Price Cap approved by the RAs in Qualification.
  - A DSU can offer at the Auction Price Cap (though these are discussed more later).
- These features mean that a Capacity Market Unit can have a number of different offer price caps that create an envelope which the offered prices across the five steps must be within.
- The Maximum Capacity Duration for existing capacity is only 1 year so all offer steps must have a Capacity Duration of 1 year.
- It is up to the Participant to set which steps are Inflexible or Flexible.

# Capacity Auction Offers - New Capacity (excluding DSU)

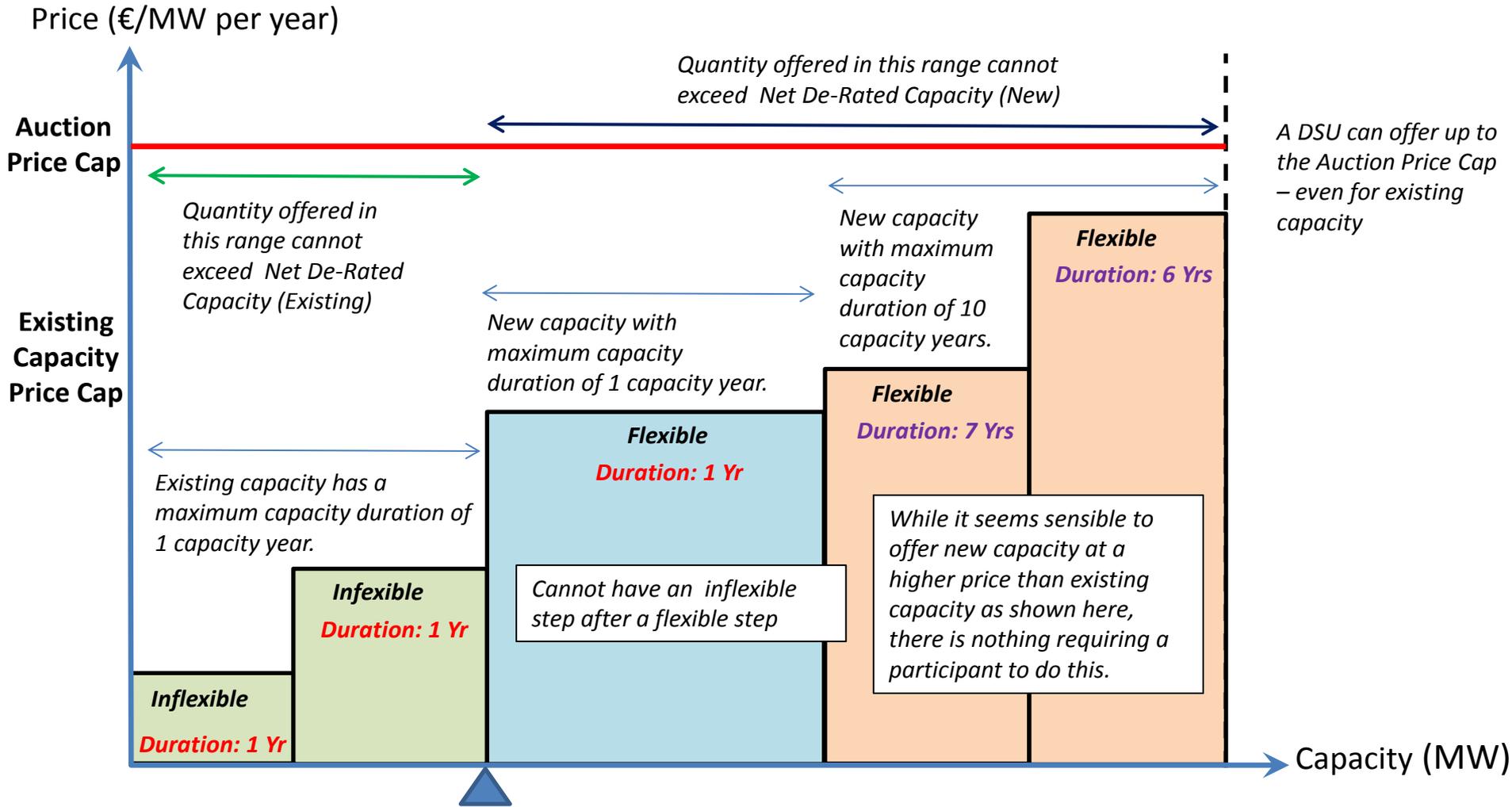


The test against firm offer requirement is not applied to New Capacity as it is not required to be offered into the Auction.

# Capacity Auction Offers for New Capacity

- The prior slide shows a CMU which only comprises New Capacity.
- It has 5 offer steps it can use but does not have to use all of them. It cannot offer more capacity than its Net De-Rated Capacity (New).
- All capacity can be offered at the Auction Price Cap.
- For New Capacity it is expected that the same Maximum Capacity Duration will apply for all that capacity:
  - By default New Capacity has a Maximum Capacity Duration of 1 Capacity Year
  - The prior slide shows some New Capacity with a Maximum Capacity Duration of 10 Capacity Years (because it more expensive capacity and the RAs have accepted that it exceeds the New Capacity Investment Rate Threshold).
- There can be different Capacity Durations by offer step though these must be no more than the Maximum Capacity Duration.
- It is up to the Participant to set which steps are Inflexible of Flexible.

# Capacity Auction Offers - DSU Units (New and Existing)



Firm Offer Requirement

For DSU, the firm offer requirement is deemed to cover all existing capacity

# Capacity Auction Offers for Demand Side Units

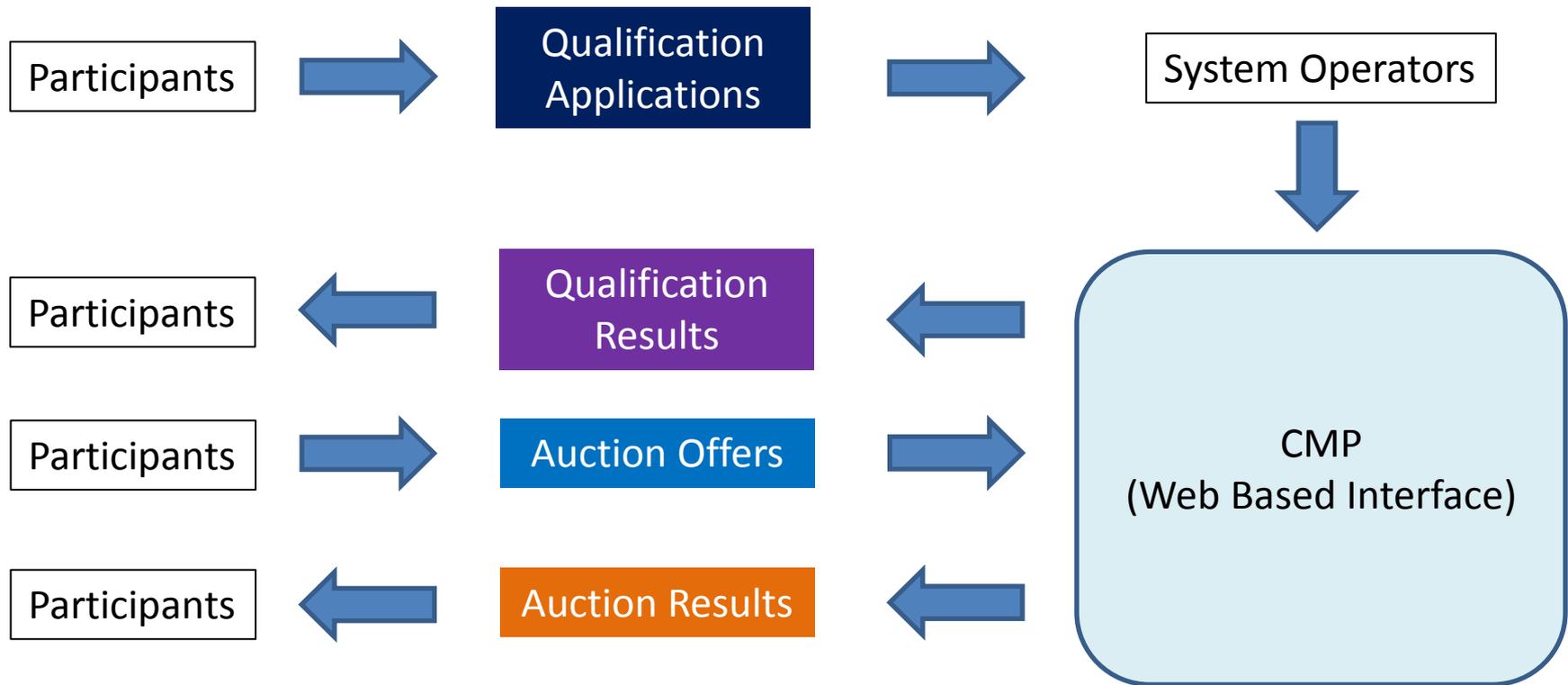
- The prior slide shows a CMU which is a Demand Side Unit.
- It has 5 offer steps it can use but does not have to use all of them:
  - As this unit has Existing Capacity and New Capacity an offer step must be fully associated with one of Existing Capacity or New Capacity. It cannot be both.
  - This is because of the offer rules and because Awarded Capacity is issued by offer step.
- All capacity can be offered at the Auction Price Cap – whether existing or new.
- As all Existing Capacity is deemed to have Firm Network Access, it must all be offered.
- For New Capacity it is expected that the same Maximum Capacity Duration will apply for all that capacity:
  - We show a case where the first step of New Capacity has Maximum Capacity Duration of 1 year and subsequent steps have a Maximum Capacity Duration of 10 years.
- Apart from the higher price cap the rules for other Existing Capacity units apply, while for the New Capacity the rules are the same as for other New Capacity.

# Chapter 3: Submitting Offers

# Timeframes

- Relevant timeframes on offering are described in the Initial Auction Information Pack (and just prior to the auction in the Final Auction Information Pack).
- Timeframes can be different by auction and the Capacity Market Code has provisions for timeframes to be revised.
- Offer submission for the first Auction will occur in December 2017 using the Capacity Market Platform.

# The Capacity Market Platform



The CMP is a web based system via which you will receive Qualification Results and through which you submit your Auction Offers. These will be validated by the system against your Final Qualification Results. Auction Results will also be provided by this system.

# Chapter 4: Course Summary

# Review of Learning Objectives

As a result of this training module for Capacity Auction Offers you should now:

Understand the form of Capacity Offers for each Capacity Market Unit



Understand the nature of Flexible and Inflexible offer steps



Understand how New Capacity can offer for Awarded Capacity of different durations

