Capacity Market – Final Auction Information Pack
FAIP2223T-4

This Final Auction Information Pack provides information relating to items listed within Section F.5 of the Capacity Market Code for the Capacity Auction, for the Capacity Year 2022/2023, which is expected to be held on 28th March 2019. The auction will be referred to within this document as the 2022/2023 T-4 Capacity Auction.

In accordance with D.1 of the Capacity Market Code, the Capacity Year 2022/2023 commences on 30th September 2022 and ends on 30th September 2023. The Capacity Year will be referred to in this document as the 2022/2023 Capacity Year.

All information set out in this document relates solely to the 2022/2023 T-4 Capacity Auction.

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Table of Contents

List of Tables

1. Introduction

1.1 Background and purpose

This Final Auction Information Pack[1] provides information relating to items listed within Section F.5 of the Capacity Market Code for the Capacity Auction for the Capacity Year 2022/2023, which is expected to be held on 28th March 2019. The auction will be referred to within this document as the 2022/2023 T-4 Capacity Auction.

In accordance with D.1.1.1 of the Capacity Market Code, the Capacity Year 2022/2023 is the period commencing at the start of the Trading Day beginning at 23:00 on 30th September 2022 and ending at the end of the Trading Day ending at 23:00 on 30th September 2023.

All information set out in this document relates solely to the 2022/2023 T-4 Capacity Auction.

In order to participate in a Capacity Auction, a party must be a fully registered and qualified participant in the Capacity Market. Information relating to the registration process can be found via the I-SEM Capacity Market Registration section of the SEMO website[2]. Please note that the registration and qualification period for the 2022/2023 T-4 Capacity Auction has now closed.

Per Section F.5.1.5 of the Capacity Market Code, a Participant is responsible for conducting its own analysis before acting in reliance of any information contained within this document.

1.2 Units

For quantities specified in MW, 'MW' refers to a megawatt of de-rated capacity, unless otherwise stated.

For prices specified in €/MW per year or £/MW per year, 'year' refers to a 12-month year, unless otherwise stated.

Settlement of prices in units based on a 12 month year is provided for in accordance with paragraph F.17.1.1 of the Trading and Settlement Code.

In this document, unless specifically stated, Euro (€) values will apply to Participants located in Ireland and Sterling (£) values will apply to Participants located in Northern Ireland. The Capacity Auction will be conducted in Euros, with Sterling offers converted to Euros at the Annual Capacity Payment Exchange Rate.

1.3 Contact Details

The following are the official contact details that should be used for any queries you may have relating to a Capacity Auction:

Postal Correspondence:
FAO: Front Office
Capacity Market Operations
The Oval
160 Shelbourne Road
Ballsbridge
Dublin 4
D04 FW28
Ireland

Email Correspondence:
capacitymarket@sem-o.com
Phone Correspondence:
If you have any questions on the application process or details please contact:
1800 726772 (ROI) or 0800 0726772 (NI)
+353 (1) 2370584 (International)

[1] Capitalised terms in this document have the definition ascribed to them in the Capacity Market Code.

[2] https://www.sem-o.com/

1.4 Disclaimer

EirGrid plc (EirGrid) and, SONI Limited (SONI) in their capacity as System Operators are required by the Capacity Market Code to publish the Final Auction Information Pack for a Capacity Auction. This publication discharges that obligation.

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1.5 Copyright Notice

The Oval,
160 Shelbourne Road,
Ballsbridge, Dublin 4,
D04 FW28
Ireland.

2. Capacity Market Code Items

This document contains values for items listed within Section F.5.1.3 of the I-SEM Capacity Market Code. Information determined by the Regulatory Authorities per Section F.3 is described as approved.

2.1 Final Demand Curve

F.5.1.3 (a) the final Demand Curve for the Capacity Auction provided by the Regulatory Authorities under section F.3;

In accordance with Section F.3.1.3 of the Capacity Market Code the Regulatory Authorities have determined the Demand Curve to be employed in this Capacity Auction. The Final Demand Curve given below includes adjustments for non-participating generation:

Table 1 – Final Demand Curve to be used in the CY2022/2023 T-4 Capacity Auction

De-Rated Capacity (MW)	Demand Curve Point (€/MW per year)
0	138,450
6,205	138,450
6,770	92,300
7,898	0

2.2 Auction Price Cap

F.5.1.3 (b) the final Auction Price Cap for the Capacity Auction (in Euro and Sterling);

Consistent with what was set out in the SEM Committee decision (SEM-18-155), the approved Auction Price Caps are set out in Table 2 below:

Table 2 – Auction Price Cap

Auction Price Cap (€/MW per year)	Auction Price Cap (£/MW per year)
138,450	131,222.91

2.3 Existing Capacity Price Cap

F.5.1.3 (c) the final Existing Capacity Price Cap for the Capacity Auction (in Euro and Sterling);

Consistent with what was set out in the SEM Committee decision (SEM-18-155), the approved Existing Capacity Price Caps are set out in Table 3 below:

Table 3 – Existing Capacity Price Cap

Existing Capacity Price Cap (€/MW per year)	Existing Capacity Price Cap (£/MW per year)
46,150	43,740.97

2.4 Locational Capacity Constraints

F.5.1.3 (d) for each Locational Capacity Constraint applicable to the Capacity Auction:

(i) The final Locational Capacity Constraint Information;

The Regulatory Authorities have determined the final Locational Capacity Constraint Area (LCCA) minimum MWs to be employed in this Capacity auction. These include adjustments (where appropriate) associated with the CRM Reserves and Witholding decision made by the SEMC Committee in February 2019. Therefore the final LCCA minimum MWs are as follows:

Table 4 – Level 1 Final Locational Capacity Constraint Area Minimum MWs for the CY2022/23 T-4 Capacity Auction

Level	Locational Capacity Constraint Area Name	Associated Level 2 Locational Constraint Area(s)	Locational Capacity Constraint Area Nodes	Minimum MW
1	L1-1: Northern Ireland	-	All nodes within Northern Ireland	1,754
1	L1-2: Ireland	L2-1: Greater Dublin	All nodes within Ireland	5,537

Table 5 – Level 2 Final Locational Capacity Constraint Area Minimum MWs for the CY2022/23 T-4 Capacity Auction

Level	Locational Capacity Constraint Area Name	Associated Level 1 Locational Constraint Area	Locational Capacity Constraint Area Nodes	Minimum MW
2	L2-1: Greater Dublin	L1-2: Ireland	1. Adamstown 110 kV station [ADM] 2. Artane 110kV station [ART] 3. Baltrasna 110kV station [BAL] 4. Barnakyle 110kV station [BKY] 5. Belcamp 220/110 kV station [BLC] 6. Belgard Road 110 kV station [BGD] 7. Blackrock 110kV station [BLA] 8. Cabra 110kV station [CAB] 9. City West 110kV station [CTW] 10. Cloghran 110kV station [CLG] 11. Clonee 220kV station [CLN] 12. College Park 110kV station [COL] 13. Cookstown 110/38kV station [COO][3] 14. Corduff 220/110kV station [CDU] 15. Corkagh 110kV station [CKG] 16. Cromcastle 110kV station [CRM] 17. Cruiserath 220kV station [CRH] 18. Dardistown 110kV station [DTN] 19. Finglas 220/110kV station [FIN] 20. Fortunestown 110kV station [FTT] 21. Francis Street 110kV station [FRA] 22. Glasmore 110kV station [GLA] 23. Grange 110kV station [GRA] 24. Grange Castle 110kV station [GCA] 25. Harolds Cross 110kV station [HAR] 26. Heuston Square 110kV station [HEU] 27. Huntstown 220kV station [HUN] 28. Inchicore 220/110kV station [INC] 29. Irish Town 220kV station [ISH] 30. Kildonan 110 kV station [KLD] 31. Kilmahud 110kV station [KUD]	1,682

[3] Cookstown 38 kV is fed from Inchicore which is in the LCC. Cookstown 10 kV is fed from Carrickmines and hence is not in the LCC.

			32. Kilmore 110kV station [KLM] 33. Macetown 110kV station [MCE] 34. McDermott 110kV station [MCD] 35. Milltown 110kV station [MIL] 36. Misery Hill 110kV station [MHL] 37. Nangor 110kV station [NAN] 38. Newbury 110kV station [NBY] 39. North Quays 110kV station [NQS] 40. North Wall 220kV station [NW] 41. Pelletstown 110kV station [PTN] 42. Poolbeg 220/110kV stations [PB] 43. Poppintree 110kV station [POP] 44. Ringsend 110kV station [RE] 45. Ryebrook 110kV station [RYB] 46. Stevenstown 110kV station [SVN] 47. Shellybanks 220kV station [SHL] 48. Trinity 110kV station [TRN] 49. West Dublin 220/110kV station [WDU] 50. Whitebank 110kV station [WBK] 51. Wolfe Tone 110kV station [WOL]	

(ii) The final Capacity Market Units that have Qualified for the Capacity Auction and that are in the System Operators' reasonable opinion capable of contributing to satisfying the constraint;

In accordance with section E.9.4 for the Capacity Market Code and F.5.1.3 (d) (ii), the Qualified Capacity Market Units that can contribute to meeting a Locational Capacity Constraint Required Quantity are set out in Table 6.

Table 6 – Qualified Capacity Market Units in each Locational Capacity Constraint Area

Level	Locational Capacity Constraint Area Name	Capacity Market Unit IDs for Qualified Capacity Market Units that contribute to the Locational Capacity Constraint
1	L1-1: Northern Ireland	Capacity Market Unit IDs commencing with "GU_5", "DSU_5" or "CAU_5" Interconnector "I_NIMOYLE"
1	L1-2: Ireland	Capacity Market Unit IDs commencing with "GU_4", "DSU_4" or "CAU_4" Interconnector "I_ROIEWIC"
2	L2-1: Greater Dublin	GU_400311, GU_400324, GU_400325, GU_400480, GU_400500, GU_400540, GU_402030, GU_403430, GU_403440, GU_403450, GU_403460, GU_403500, GU_403510, GU_403520, GU_403530, GU_403540, GU_403600, GU_403610, GU_403620, GU_403630, GU_403640, GU_403650, GU_403660, GU_403670, GU_403680, GU_403690

2.5 Final Capacity Auction Timetable

F.5.1.3 (e) the final Capacity Auction Timetable as it relates to events after the publication of the Final Auction Information Pack (subject to section D.2).

The approved Capacity Auction Timetable is set out in Table 7:

Table 7 – Capacity Auction Timetable

	Event	Date
1	Initial Auction Information Pack Date: the last publication date for the Initial Auction Information Pack	28th September 2018
2	Opt-out Notification Date: the last date a Participant can submit an Opt-Out Notification	11th October 2018
3	Exception Application Date: the last time a Participant can make an Exception Application to the Regulatory Authorities	25th October 2018
4	Qualification Application Date: the last date a Participant can submit an Application for Qualification in respect of the Capacity Auction	25th October 2018
5	Provisional Qualification Results Date: the date by which the System Operators are expected to inform persons who submit Applications for Qualification of Provisional SO Qualification Decisions in respect of the Capacity Auction	4th January 2019
6	Final Qualification Submission Date: the date by which the System Operators are expected to provide Final Qualification Results in respect of the Capacity Auction to the Regulatory Authorities for approval	19th February 2019
7	Date for finalising the Locational Capacity Constraint Limits for the Capacity Auction	19th February 2019
8	Final Qualification Results Date: the date by which the System Operators are expected to inform persons who submit Applications for Qualification of Final Qualification Decisions in respect of the Capacity Auction	7th March 2019
9	Qualification Results Publication Date: the date by which the System Operators are expected to publish the total Qualified capacity in respect of the Capacity Auction	7th March 2019
10	Final Auction Information Pack Date: the date by which the System Operators are expected to publish the Final Auction Information Pack for the Capacity Auction	7th March 2019
11	Capacity Auction Submission Commencement: the earliest date and time that Participants may submit Capacity Auction Offers in respect of Capacity Market Units Qualified to participate in the Capacity Auction	21st March 2019 10:00
12	Capacity Auction Submission End: the last date and time until Participants may submit Capacity Auction Offers in respect of Capacity Market Units Qualified to participate in the Capacity Auction	28th March 2019 10:00
13	Capacity Auction Run Start: the day and time that the System Operators initiate the run of the software program referred to in paragraph F.8.5.1 in respect of the Capacity Auction	28th March 2019 12:00
14	Capacity Auction Completion Date: the date by which the System Operators are expected to complete the Capacity Auction (including the Capacity Auction Monitor's review)	2nd April 2019
15	Capacity Auction Provisional Results Date: the date by which the System Operators are expected to provide provisional Capacity Auction results to Participants	2nd April 2019
16	Capacity Auction Approval Date: the date by which the Regulatory Authorities are expected to approve the Capacity Auction results	25th April 2019
17	Capacity Auction Results Date: the date the System Operators are expected to publish the Capacity Auction results	29th April 2019
18	Performance Security Date: the last date for Participants to provide Performance Securities to the System Operators for Awarded New Capacity allocated in the Capacity Auction	2nd May 2019

2.6 Participant Requirements

F.5.1.3 (f) details of what is required of Participants participating in the Capacity Auction in order to submit Capacity Auction Offers;

For information on submitting Capacity Auction Offers, users are advised to view the Capacity Market Platform User Guides (CMPT, CMPR, CMPA Guides) to assist with trouble shooting. In addition, the System Operators have prepared a Helicopter Guide to the Capacity Auction Process. It is advised that Participants are familiar with these documents ahead of the Auction.

2.7 Allowed Timeframe

F.5.1.3 (g) the final Allowed Timeframe;

In accordance with paragraph F.8.5.2 of the Capacity Market Code, the Allowed Timeframe for the 2022/2023 T-4 Capacity Auction is 24 hours. Further information on this is contained in the Interim Auction Solution Methodology (IASM2223T-4). The Interim Auction Solution Methodology contains a description of the methodology that will be used to clear the 2022/2023 T-4 Capacity Auction.

2.8 Annual Capacity Payment Exchange Rate

F.5.1.3 (h) the final Annual Capacity Payment Exchange Rate to be used by the System Operators in conducting the Capacity Auction and applicable to Awarded Capacity in the Capacity Auction;

In accordance with Section K.2 of the Capacity Market Code the Regulatory Authorities approve the methodology used in determining the following Final Annual Capacity Payment Exchange Rate applicable to this Capacity Auction:

Table 8 – Final Annual Capacity Payment Exchange Rates for CY2022/23 T-4 Capacity Auction

Annual Capacity Payment Exchange Rate	Annual Capacity Payment Exchange Rate
€1 = £0.9324	£1 = €1.0725

This rate has been calculated in accordance with the methodology approved under Chapter K of the CMC.

2.9 Final Capacity Requirement

F.5.1.3 (i) the final Capacity Requirement to be used in the Capacity Auction;

The Capacity Requirement has been calculated by the System Operators based on the approved methodology (SEM-18-155) and submitted to the Regulatory Authorities for their determination. The approved Capacity Requirement is set out in Table 9 below:

Table 9 – Capacity Requirement

Capacity Requirement (MW)
7,524 MW

2.10 Awarded Capacity

F.5.1.3 (j) at the date of the Final Auction Information Pack, how much Awarded Capacity has already been procured for the relevant Capacity Year;

The Awarded Capacity is set out in Table 10 below:

Table 10 – Awarded Capacity

Awarded Capacity (MW)
0

2.11 Annual Stop-Loss Limit Factor

F.5.1.3 (k) the final Annual Stop-Loss Limit Factor applicable to Awarded Capacity allocated in the Capacity Auction;

As set out in the SEM Committee decision (SEM-18-155), the approved Annual Stop-Loss Limit Factor is set out in Table 11 below:

Table 11 – Annual Stop-Loss Limit Factor

Annual Stop-Loss Limit Factor
1.5

2.12 Billing Period Stop-Loss Limit Factor

F.5.1.3 (l) the final Billing Period Stop-Loss Limit Factor applicable to Awarded Capacity allocated in the Capacity Auction;

As set out in the SEM Committee decision (SEM-18-155), the approved Billing Period Stop-Loss Limit Factor is set out in Table 12 below:

Table 12 – Billing Period Stop-Loss Limit Factor

Billing Period Stop-Loss Limit Factor
0.50

2.13 Performance Securities

F.5.1.3 (m) in respect of Performance Securities:

(i) the final Performance Security Posting Dates/ Events applicable to Awarded New Capacity allocated in the Capacity Auction; and

(ii) for each Performance Security Posting Date/ Event, the final €/MW rate to be applied in setting Performance Securities applicable to Awarded New Capacity allocated in the Capacity Auction;

As set out in the SEM Committee decision (SEM-18-155), the approved final Performance Security Posting Dates / Events and final performance security rates are set out in Table 13 below:

Table 13 – Performance Security Dates and Rates

Date / Event	Performance Security Rate (€/MW)
More than 13 months prior to beginning of Capacity Year	10,000
From 13 months prior to beginning of Capacity Year	30,000
From beginning of Capacity Year	40,000

2.14 Termination Charges

F.5.1.3 (n) the final €/MW fee rates for calculating Termination Charges applicable to Awarded New Capacity allocated in the Capacity Auction;

As set out in the SEM Committee decision (SEM-18-155), the approved final Termination Charge rates are set out in Table 14 below:

Table 14 – Termination Charge Rates

Date / Event	Termination Charge Rate (€/MW)
More than 13 months prior to beginning of Capacity Year	10,000
From 13 months prior to beginning of Capacity Year	30,000
From beginning of Capacity Year	40,000

2.15 Scarcity Price

F.5.1.3 (o) anticipated values for the Full Administered Scarcity Price and the Reserve Scarcity Price Curve applicable to the Capacity Year;

As set out in the SEM Committee decision (SEM-18-155), the approved anticipated values of the Full Administered Scarcity Price and the Reserve Scarcity Price Curve are set out in Table 15 below:

Table 15 – Anticipated Administered Scarcity Price Curve

Short Term Reserve (MW)	Administered Scarcity Price (€/MWh)
Demand Control	25% of VoLL
0	25% of VoLL
500	500

In Calendar Year 2018, VoLL was set to €11,128.26/MWh (see SEM-17-071). In accordance with SEM-18-155 the SEM Committee will move to publishing VoLL on a calendar year basis, and the values will be updated annually in line with inflation.

2.16 Strike Price

D.3.1.2 (p) anticipated values for the parameters listed in paragraph F.16.1.1 and F.16.1.5 of the Trading and Settlement Code to be applied in determining the Strike Price in accordance with the Trading and Settlement Code for the Capacity Year; and

The approved anticipated values to be applied in determining the Strike Price are set out in Table 16 below:

Table 16 – Anticipated Strike Price calculation components

Strike Price Component	Value	Unit
$PCARBON_m$	$PCARBON_m$ Index	€/tCO2e
$PFUELNG_m$	[$PFUELNG_m$ Index (p/therm) x 0.01 (£/p) + $PFUELNG_m$ Transport (£/therm)] x Exchange Rate (€/£) x 9.48 (therm/GJ) x 3.6 (GJ/MWh)	€/MWh
$PFUELO_m$	[$PFUELO_m$ Index ($/t) x Exchange Rate (€/$) + $PFUELO_m$ Transport (€/t)] x 0.025 (t/GJ) x 3.6 (GJ/MWh)	€/MWh
$PCARBON_m$ Index	ICE ECX EUA Futures – EUA - (monthly)[4]	€/tCO2e
$PFUELNG_m$ Index	ICE UK Natural Gas Index (monthly)	p/therm
$PFUELNG_m$ Transport	0.0424[5]	£/therm
$PFUELO_m$ Index	Platt's Forward Curve (monthly) for monthly swap transactions for 1% sulphur free on board (FOB) fuel oil cargoes in North West Europe (NWE) for the relevant month (AAEGR00)	$/t
$PFUELO_m$ Transport	50[6]	€/t
$FTHEORYPU_y$	15	%

[4] The December price for a given year will apply to all months falling within that year.

[5] NI natural gas transport adder used in I-SEM PLEXOS Forecast Model 2016-17.

[6] Based on ROI LSFO transport adder used in I-SEM PLEXOS Forecast Model 2016-17.

$FCARBONING_y$	0.202	tCO2e/MWh
$FCARBONINO_y$	0.277	tCO2e/MWh
$PTHEORYDSU_y$	500	€/MWh
Exchange Rate (€/£)	The Trading Day Exchange Rate as defined in the Trading and Settlement Code	€/£
Exchange Rate (€/$)	The rate set at 17:00 the day before the Trading Day, from the same source as used for the Trading Day Exchange Rate	€/$
therm per GJ	9.48[7]	therm/GJ
LSFO calorific value	0.025[8]	t/GJ

3. Other Capacity Market Code Items

The additional information provided in this section is not required to be published in the Final Auction Information Pack, but is provided for reference.

3.1 De-Rating Curves

This section gives the Final De-rating Curves. These were published in section 2.1 of the Initial Auction Information Pack. These values have not changed and are only included here for reference.

D.3.1.2 (a) the final De-Rating Curves, defining De-Rating Factors by unit Initial Capacity and by Technology Class (including for Interconnectors) to be used in the Capacity Auction;

The De-Rating Curves are determined by the Regulatory Authorities in accordance with Section D.3.1.3 (a) of the Capacity Market Code. The approved De-Rating Curves are set out in Tables 17, 18, 19 and 20 below.

[7] I-SEM PLEXOS Forecast Model 2017-17

[8] I-SEM PLEXOS Forecast Model 2016-17

Table 17 – De-Rating Curves by Technology Class and Initial Capacity

Initial Capacity (IC) (MW not de-rated)	DSU >6 hrs[9]	Gas Turbine	Hydro	Steam Turbine	Interconnector[10]	System Wide[11]
0 ≤ IC ≤ 10	0.900	0.920	0.864	0.877	0.866	0.900
10 < IC ≤ 20	0.899	0.919	0.862	0.875	0.864	0.899
20 < IC ≤ 30	0.898	0.918	0.859	0.873	0.862	0.898
30 < IC ≤ 40	0.896	0.918	0.857	0.871	0.860	0.896
40 < IC ≤ 50	0.895	0.917	0.855	0.869	0.858	0.895
50 < IC ≤ 60	0.894	0.916	0.852	0.867	0.856	0.894
60 < IC ≤ 70	0.892	0.916	0.850	0.865	0.853	0.892
70 < IC ≤ 80	0.891	0.915	0.848	0.863	0.851	0.891
80 < IC ≤ 90	0.890	0.914	0.845	0.861	0.849	0.890
90 < IC ≤ 100	0.888	0.913	0.843	0.860	0.847	0.888
100 < IC ≤ 110	0.887	0.913	0.841	0.857	0.844	0.887
110 < IC ≤ 120	0.886	0.913	0.839	0.855	0.842	0.886
120 < IC ≤ 130	0.884	0.912	0.837	0.852	0.839	0.884
130 < IC ≤ 140	0.883	0.912	0.835	0.850	0.836	0.883
140 < IC ≤ 150	0.881	0.911	0.832	0.847	0.833	0.881
150 < IC ≤ 160	0.879	0.910	0.830	0.844	0.830	0.879
160 < IC ≤ 170	0.877	0.909	0.827	0.842	0.827	0.877
170 < IC ≤ 180	0.875	0.908	0.824	0.839	0.824	0.875
180 < IC ≤ 190	0.873	0.906	0.821	0.836	0.821	0.873
190 < IC ≤ 200	0.871	0.905	0.819	0.833	0.818	0.871
200 < IC ≤ 210	0.868	0.903	0.816	0.830	0.815	0.868
210 < IC ≤ 220	0.865	0.902	0.814	0.827	0.811	0.865
220 < IC ≤ 230	0.862	0.901	0.812	0.824	0.808	0.862
230 < IC ≤ 240	0.859	0.900	0.809	0.820	0.804	0.859
240 < IC ≤ 250	0.857	0.899	0.807	0.817	0.801	0.857
250 < IC ≤ 260	0.854	0.898	0.805	0.814	0.797	0.854
260 < IC ≤ 270	0.852	0.896	0.803	0.810	0.794	0.852
270 < IC ≤ 280	0.850	0.894	0.801	0.807	0.790	0.850
280 < IC ≤ 290	0.848	0.893	0.799	0.804	0.787	0.848
290 < IC ≤ 300	0.846	0.891	0.798	0.801	0.783	0.846
300 < IC ≤ 310	0.844	0.889	0.796	0.797	0.779	0.844
310 < IC ≤ 320	0.842	0.888	0.794	0.793	0.775	0.842
320 < IC ≤ 330	0.839	0.886	0.791	0.790	0.771	0.839
330 < IC ≤ 340	0.837	0.884	0.789	0.786	0.767	0.837
340 < IC ≤ 350	0.834	0.882	0.787	0.782	0.763	0.834
350 < IC ≤ 360	0.832	0.881	0.785	0.778	0.759	0.832
360 < IC ≤ 370	0.829	0.879	0.782	0.775	0.755	0.829
370 < IC ≤ 380	0.826	0.877	0.780	0.771	0.751	0.826
380 < IC ≤ 390	0.822	0.876	0.777	0.767	0.747	0.822
390 < IC ≤ 400	0.819	0.874	0.775	0.763	0.743	0.819
400 < IC ≤ 410	0.816	0.872	0.772	0.759	0.739	0.816
410 < IC ≤ 420	0.814	0.870	0.769	0.755	0.735	0.814
420 < IC ≤ 430	0.811	0.868	0.766	0.751	0.730	0.811
430 < IC ≤ 440	0.808	0.866	0.763	0.747	0.726	0.808
440 < IC ≤ 450	0.805	0.864	0.760	0.742	0.721	0.805
450 < IC ≤ 460	0.801	0.862	0.757	0.738	0.717	0.801
460 < IC ≤ 470	0.798	0.860	0.754	0.734	0.712	0.798
470 < IC ≤ 480	0.794	0.857	0.751	0.730	0.708	0.794
480 < IC ≤ 490	0.791	0.855	0.748	0.725	0.703	0.791
490 < IC ≤ 500	0.787	0.853	0.745	0.721	0.699	0.787

[9] In accordance with SEM Committee decision SEM-18-030, DSUs with a Maximum Down Time of more than 6 hours should apply the appropriate de-rating factor based on the values set out in table 17. DSUs with a Maximum Down Time of 6 hours or less should apply the appropriate de-rating factor based on the values set out in table 19 - Other Storage.

[10] The final de-rating factor for Interconnectors is calculated by multiplying the marginal de-rating factor that applies to their size class by the External Market De-rating Factor. The External Market De-rating Factor for this auction will be 0.60 for interconnectors from Great Britain to Ireland or Northern Ireland.

[11] New Technology (i.e. a technology for which there is currently no technology class) should use the System Wide derating curve.

Table 18 – De-Rating Curves for pumped hydro storage units

	Hours of Storage												
Initial Capacity (IC) (MW)	**0.0**	**0.5**	**1.0**	**1.5**	**2.0**	**2.5**	**3.0**	**3.5**	**4.0**	**4.5**	**5.0**	**5.5**	**6.0 or greater**
0 ≤ IC ≤ 10	0	0.207	0.353	0.469	0.550	0.607	0.648	0.678	0.702	0.726	0.751	0.779	0.811
10 < IC ≤ 20	0	0.205	0.351	0.466	0.547	0.604	0.645	0.675	0.700	0.724	0.749	0.777	0.808
20 < IC ≤ 30	0	0.193	0.339	0.452	0.532	0.589	0.632	0.663	0.689	0.714	0.739	0.766	0.796
30 < IC ≤ 40	0	0.187	0.333	0.445	0.524	0.582	0.625	0.657	0.683	0.708	0.734	0.761	0.789
40 < IC ≤ 50	0	0.181	0.326	0.438	0.516	0.574	0.618	0.651	0.678	0.703	0.729	0.755	0.783
50 < IC ≤ 60	0	0.175	0.320	0.430	0.508	0.567	0.611	0.644	0.672	0.697	0.723	0.750	0.776
60 < IC ≤ 70	0	0.169	0.314	0.423	0.501	0.559	0.604	0.638	0.666	0.692	0.718	0.744	0.769
70 < IC ≤ 80	0	0.166	0.310	0.418	0.496	0.554	0.599	0.634	0.662	0.689	0.715	0.741	0.765
80 < IC ≤ 90	0	0.167	0.309	0.416	0.494	0.553	0.598	0.632	0.661	0.687	0.714	0.739	0.763
90 < IC ≤ 100	0	0.167	0.308	0.415	0.492	0.551	0.596	0.631	0.660	0.686	0.712	0.737	0.761
100 < IC ≤ 110	0	0.168	0.307	0.413	0.491	0.549	0.595	0.629	0.658	0.685	0.711	0.736	0.759
110 < IC ≤ 120	0	0.169	0.307	0.411	0.489	0.548	0.593	0.628	0.657	0.684	0.710	0.734	0.757
120 < IC ≤ 130	0	0.167	0.304	0.407	0.485	0.544	0.589	0.624	0.653	0.680	0.706	0.731	0.754
130 < IC ≤ 140	0	0.164	0.299	0.402	0.479	0.538	0.583	0.618	0.647	0.674	0.700	0.725	0.748
140 < IC ≤ 150	0	0.161	0.294	0.396	0.473	0.532	0.577	0.612	0.641	0.669	0.695	0.720	0.743
150 < IC ≤ 160	0	0.158	0.289	0.391	0.467	0.526	0.571	0.606	0.635	0.663	0.689	0.714	0.738
160 < IC ≤ 170	0	0.155	0.285	0.385	0.461	0.520	0.564	0.599	0.629	0.657	0.684	0.709	0.732
170 < IC ≤ 180	0	0.152	0.281	0.380	0.456	0.514	0.558	0.593	0.623	0.652	0.678	0.703	0.727
180 < IC ≤ 190	0	0.150	0.277	0.375	0.450	0.508	0.552	0.587	0.618	0.646	0.673	0.698	0.721
190 < IC ≤ 200	0	0.148	0.273	0.370	0.445	0.502	0.546	0.581	0.612	0.640	0.667	0.692	0.716

Table 19 – De-Rating Curves for Other Storage

	Hours of Storage												
Initial Capacity (IC) (MW)	**0.0**	**0.5**	**1.0**	**1.5**	**2.0**	**2.5**	**3.0**	**3.5**	**4.0**	**4.5**	**5.0**	**5.5**	**6.0 or greater**
0 ≤ IC ≤ 10	0	0.241	0.394	0.516	0.599	0.659	0.701	0.731	0.754	0.777	0.800	0.827	0.858
10 < IC ≤ 20	0	0.237	0.390	0.512	0.595	0.655	0.697	0.727	0.751	0.774	0.797	0.824	0.855
20 < IC ≤ 30	0	0.220	0.373	0.492	0.575	0.635	0.679	0.711	0.736	0.760	0.785	0.812	0.841
30 < IC ≤ 40	0	0.211	0.364	0.482	0.565	0.625	0.670	0.702	0.729	0.753	0.779	0.806	0.834
40 < IC ≤ 50	0	0.202	0.355	0.472	0.554	0.615	0.660	0.694	0.721	0.746	0.772	0.799	0.827
50 < IC ≤ 60	0	0.193	0.346	0.462	0.544	0.604	0.650	0.685	0.713	0.739	0.766	0.793	0.820
60 < IC ≤ 70	0	0.184	0.337	0.451	0.533	0.594	0.641	0.676	0.705	0.732	0.759	0.786	0.812
70 < IC ≤ 80	0	0.179	0.330	0.444	0.526	0.587	0.634	0.670	0.700	0.727	0.755	0.782	0.807
80 < IC ≤ 90	0	0.177	0.327	0.440	0.522	0.583	0.631	0.667	0.697	0.725	0.752	0.779	0.805
90 < IC ≤ 100	0	0.175	0.324	0.436	0.518	0.580	0.628	0.664	0.694	0.722	0.750	0.777	0.802
100 < IC ≤ 110	0	0.173	0.320	0.432	0.514	0.576	0.624	0.661	0.692	0.720	0.748	0.774	0.799
110 < IC ≤ 120	0	0.172	0.317	0.427	0.510	0.573	0.621	0.658	0.689	0.718	0.745	0.772	0.797
120 < IC ≤ 130	0	0.170	0.314	0.424	0.506	0.569	0.617	0.654	0.685	0.714	0.742	0.768	0.793
130 < IC ≤ 140	0	0.169	0.311	0.420	0.502	0.564	0.613	0.650	0.681	0.710	0.738	0.764	0.789
140 < IC ≤ 150	0	0.168	0.309	0.417	0.498	0.560	0.608	0.645	0.676	0.706	0.734	0.760	0.785
150 < IC ≤ 160	0	0.167	0.306	0.413	0.494	0.556	0.604	0.640	0.672	0.701	0.729	0.756	0.781
160 < IC ≤ 170	0	0.166	0.303	0.410	0.490	0.552	0.599	0.636	0.668	0.697	0.725	0.752	0.776
170 < IC ≤ 180	0	0.165	0.301	0.406	0.486	0.547	0.594	0.631	0.663	0.693	0.721	0.747	0.772
180 < IC ≤ 190	0	0.164	0.298	0.402	0.482	0.542	0.589	0.626	0.658	0.688	0.716	0.743	0.768
190 < IC ≤ 200	0	0.163	0.295	0.398	0.477	0.538	0.584	0.621	0.653	0.683	0.712	0.739	0.763

Note: the values of Initial Capacity in units of MW are values prior to the application of De-Rating Factors.

Table 20 – De-rating Factors for Wind and Solar

Wind	Solar
0.089	0.109

3.2 Increase and Decrease Tolerance

This section gives the Increase and Decrease Tolerances by Technology Class that may be applied by a Participant in its Application for Qualification to Capacity Market Unit de-ratings. These were published in section 2.12 of the Initial Auction Information Pack. These values have not changed and are only included here for reference.

D.3.1.2 (l) the final allowed Increase Tolerance and Decrease Tolerance by Technology Class that may be applied by a Participant in its Application for Qualification to Capacity Market Unit de-ratings;

As set out in the SEM Committee decision (SEM-18-030), the approved Increase and Decrease Tolerances are set out in Table 21 below:

Table 21 – Increase and Decrease Tolerances per Technology Class

Technology Class	INCTOL(%)	DECTOL(%)
All except DSUs	0	0
DSUs	0	100

Note 1: The DECTOL for the DSU Technology Class also applies to any demand reduction component of a Candidate Unit that is part of an Autoproducer Site (where the demand reduction component is calculated as the Autoproducer Demand Reduction Volume / Maximum Export Capacity).

Note 2: In accordance with SEM Committee decision SEM-18-030, where satisfactory evidence is provided to the System Operators, the DECTOL shall be 100% for a Candidate Unit that, due to relevant emissions legislation, has its running hours restricted to an extent that would reasonably be considered to prevent reliable delivery of their De-rated Capacity at times of scarcity, e.g. the 500 hour limits set out in Annex V of the Industrial Emission Directive (2010/75) in relation to NOx emissions.

3.3 Capacity Market Code Items Change Table

This section gives the Capacity Market Code Items Change Table. This is an updated version of the table published in the Initial Auction Information Pack. All of the items required under the Capacity Market Code have been finalised in this Final Auction Information Pack with the exception to anticipated values which may vary, in the case of the Administered Scarcity Price via the change process set out in the Trading and Settlement Code and in the case of the Strike Price due to variations in the fuel and carbon indices set out in this document.

Table 22 – Capacity Market Code Items Change Table

Code Item	IAIP	FAIP
De-Rating Curves	Final	Final
Capacity Requirement	Final	Final
Indicative Demand Curve	Indicative	Final
Locational Capacity Constraint Areas	Final	Final
Locational Capacity Constraint Minimum Requirement		Final
Awarded Capacity	Final	Final
Auction Price Cap	Final	Final
Existing Capacity Price Cap	Final	Final
New Capacity Investment Rate Threshold	Final	Final
Annual Stop-Loss Limit Factor	Final	Final
Billing Period Stop-Loss Limit Factor	Final	Final
Annual Capacity Payment Exchange Rate	Indicative	Final
Increase and Decrease Tolerance	Final	Final
Performance Securities	Final	Final
Termination Charges	Final	Final
Administered Scarcity Price	Anticipated	Anticipated
Strike Price	Anticipated	Anticipated
Capacity Auction Timetable	Indicative	Final

3.4 Substantial Financial Completion Period

This section gives the Substantial Financial Completion Period applicable to this Capacity Auction. The inclusion within the Final Auction Information Pack is a result of the Proposed Modification to the Capacity Market Code – CMC_11_18 – Long Stop Date. It was intended for this information to be contained within the Initial Auction Information Pack, however, due to time constraints this was not included. In this instance alone, this information is contained within this FAIP. Going forward and for subsequent Capacity Auctions, this will form part of the IAIP.

D.3.1.2 The Initial Auction Information Pack for a Capacity Auction shall set out:

(r) The Substantial Financial Completion Period.

Table 23 – Substantial Financial Completion Period

Substantial Financial Completion Period
18 months

3.5 Long Stop Date

This section gives the Long Stop Dates applicable to this Capacity Auction. The inclusion within the Final Auction Information Pack is to draw attention to the change in definition of Long Stop Date as a result of the SEM Committee Decision (SEM-18-030).

Table 24 – Long Stop Date

For Capacity awards with a capacity duration of one year	For Capacity awards with a capacity duration greater than one year
31 October 2022	31 March 2024