2027/2028 T-4 Capacity Auction Initial Auction Information Pack

IAIP2728T-4

Version 1.1

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3. Capacity Market Code Items Change Table

Revision	Date	Description
1.0	13/03/23	Initial Auction Information Pack for 2027/2028 T-4
1.1	14/03/23	Updated to reflect updated Capacity Auction Timetable v1.1

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1. Background

1.1. Purpose of this document

This Initial Auction Information Pack provides information relating to items listed within Section D.3 of the Capacity Market Code for the T-4 Capacity Auction for the Capacity Year 2027/2028. The Auction will be referred to within this document as the 2027/2028 T-4 Capacity Auction. The Capacity Year will be referred to in this document as the 2027/2028 T-4 Capacity Year. All information set out in this document relates solely to the 2027/2028 T-4 Capacity Auction.

In accordance with D.1.1.1 of the Capacity Market Code, the Capacity Year 2027/2028 is the period commencing at the start of the Trading Day beginning at 23:00 on 30th September 2027 and ending at the end of the Trading Day ending at 23:00 on 30th September 2028.

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 Capacity Market Registration section of the SEMO website (<u>https://www.sem-o.com/</u>).

Please note that information published within this pack may be subject to amendment within the Final Auction Information Pack per Capacity Market Code, Section D.3.1.4. Care has been taken within this document to clearly note where information is final or where it is indicative and subject to change.

The Final Auction Information Pack is due to be published in accordance with the Capacity Auction Timetable, CAT2728T-4. Per Section D.3.1.5 of the Capacity Market Code, before acting in reliance on any information contained within this document, please take care to ensure any amendments after the publication of the Final Auction Information Pack have been taken into consideration.

1.2. Units

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

For prices specified in ℓ /MW per year or ℓ /MW per year, 'year' refers to a <u>12-month year</u>, 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 (\in) 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: FAO: Market Interface

Capacity Market Operations

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Ballsbridge, Dublin 4 D04 FW28

Ireland

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2. Capacity Market Code Items

This document contains values for items listed within Section D.3.1.2 of the Capacity Market Code. Information determined by the Regulatory Authorities per Section D.3.1.3 is described as approved.

2.1. De-Rating Curves

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 Marginal De-Rating Curves approved by the Regulatory Authorities in accordance with Section D.3.1.3 (a) of the Capacity Market Code are set out in Tables 1 to 5.

The Annual Run-Hour Limit (ARHL) De-Rating Factors approved by the Regulatory Authorities in accordance with Section D.3.1.3 (aA) of the Capacity Market Code are set out in Table 6, in accordance with <u>SEM-22-063</u> and <u>SEM-23-017</u>.

Initial Capacity (IC) (MW not de-rated)	DSU>6 hrs ¹	Gas Turbine	Hydro	Steam Turbine	Interconnector ²³	System Wide ⁴
0 ≤ IC ≤ 10	0.614	0.890	0.883	0.756	0.565	0.844
10 < IC ≤ 20	0.607	0.882	0.880	0.751	0.564	0.840
20 < IC ≤ 30	0.601	0.876	0.877	0.746	0.563	0.836
30 < IC ≤ 40	0.596	0.870	0.874	0.742	0.563	0.833
40 < IC ≤ 50	0.591	0.865	0.872	0.738	0.562	0.829
50 < IC ≤ 60	0.587	0.861	0.870	0.734	0.561	0.825
60 < IC ≤ 70	0.582	0.860	0.867	0.731	0.560	0.821
70 < IC ≤ 80	0.577	0.858	0.865	0.727	0.559	0.818
80 < IC ≤ 90	0.572	0.857	0.862	0.723	0.559	0.814
90 < IC ≤ 100	0.567	0.855	0.860	0.719	0.558	0.810
100 < IC ≤ 110	0.562	0.853	0.857	0.715	0.557	0.807
110 < IC ≤ 120	0.557	0.851	0.855	0.710	0.556	0.803
120 < IC ≤ 130	0.553	0.849	0.852	0.706	0.555	0.799
130 < IC ≤ 140	0.548	0.847	0.849	0.702	0.554	0.795
140 < IC ≤ 150	0.543	0.844	0.847	0.698	0.553	0.792
150 < IC ≤ 160	0.538	0.842	0.844	0.694	0.553	0.788
160 < IC ≤ 170	0.533	0.839	0.841	0.689	0.551	0.784
170 < IC ≤ 180	0.528	0.837	0.838	0.685	0.550	0.780
180 < IC ≤ 190	0.523	0.834	0.835	0.681	0.550	0.777
190 < IC ≤ 200	0.518	0.832	0.832	0.676	0.548	0.773
200 < IC ≤ 210	0.514	0.829	0.829	0.672	0.547	0.769
210 < IC ≤ 220	0.509	0.827	0.826	0.667	0.547	0.765
220 < IC ≤ 230	0.504	0.824	0.823	0.663	0.545	0.762
230 < IC ≤ 240	0.499	0.822	0.820	0.659	0.544	0.758
240 < IC ≤ 250	0.494	0.819	0.817	0.654	0.543	0.754
250 < IC ≤ 260	0.490	0.816	0.813	0.650	0.542	0.750
260 < IC ≤ 270	0.485	0.813	0.810	0.645	0.541	0.747
270 < IC ≤ 280	0.481	0.809	0.806	0.641	0.539	0.743
280 < IC ≤ 290	0.476	0.806	0.802	0.636	0.538	0.739
290 < IC ≤ 300	0.472	0.803	0.798	0.631	0.536	0.735
300 < IC ≤ 310	0.467	0.800	0.795	0.627	0.535	0.732
310 < IC ≤ 320	0.463	0.796	0.791	0.622	0.533	0.728
320 < IC ≤ 330	0.458	0.793	0.787	0.617	0.532	0.724

Table 1 - Initial Capacity Marginal De-Rating Curves by Technology Class and Initial Capacity

⁴ New Technology (i.e. a technology for which there is currently no technology class) should use the System Wide derating curve.

¹ In accordance with SEM Committee decision <u>SEM-18-030</u>, DSUs with a Maximum Down Time of more than 6 hours should apply the appropriate Marginal De-Rating Factor based on the values set out in Table 1. DSUs with a Maximum Down Time of 6 hours or less should apply the appropriate Marginal De-Rating Factor based on the values set out in Table 4.

 $^{^2}$ The Marginal De-Rating Factor for Interconnectors to Great Britain has been adjusted by an External Market De-Rating Factor of 0.60. ³ Compliance with Art 26 and the associated ACER decision 36/2020 is currently under consideration by the Regulatory Authorities in respect of any proposed interconnector to another European Union Member State. Any proposed interconnector to another European Member State that is likely to be available in the Capacity Year is expected to be considered as non-participating capacity in the 2027/2028 T-4 Capacity Auction.

Initial Capacity (IC) (MW not de-rated)	DSU>6 hrs ¹	Gas Turbine	Hydro	Steam Turbine	Interconnector ²³	System Wide ⁴
330 < IC ≤ 340	0.454	0.790	0.784	0.613	0.531	0.720
340 < IC ≤ 350	0.450	0.787	0.780	0.608	0.529	0.717
350 < IC ≤ 360	0.445	0.783	0.776	0.603	0.528	0.713
360 < IC ≤ 370	0.441	0.780	0.773	0.599	0.526	0.709
370 < IC ≤ 380	0.436	0.777	0.769	0.594	0.525	0.705
380 < IC ≤ 390	0.432	0.773	0.765	0.590	0.524	0.702
390 < IC ≤ 400	0.427	0.770	0.761	0.585	0.522	0.698
400 < IC ≤ 410	0.423	0.767	0.758	0.580	0.521	0.694
410 < IC ≤ 420	0.418	0.764	0.754	0.576	0.520	0.690
420 < IC ≤ 430	0.414	0.760	0.750	0.571	0.518	0.687
430 < IC ≤ 440	0.410	0.757	0.747	0.566	0.517	0.683
440 < IC ≤ 450	0.405	0.754	0.743	0.562	0.515	0.679
450 < IC ≤ 460	0.401	0.750	0.739	0.557	0.514	0.675
460 < IC ≤ 470	0.396	0.747	0.735	0.552	0.512	0.672
470 < IC ≤ 480	0.392	0.744	0.732	0.548	0.511	0.668
480 < IC ≤ 490	0.387	0.741	0.728	0.543	0.509	0.664
490 < IC ≤ 500	0.383	0.737	0.724	0.539	0.508	0.660
500 < IC ≤ 510	0.379	0.734	0.720	0.534	0.506	0.657
510 < IC ≤ 520	0.375	0.730	0.716	0.530	0.505	0.653
520 < IC ≤ 530	0.372	0.726	0.712	0.525	0.503	0.649
530 < IC ≤ 540	0.368	0.722	0.707	0.521	0.501	0.645
540 < IC ≤ 550	0.365	0.718	0.703	0.517	0.499	0.642
550 < IC ≤ 560	0.361	0.714	0.699	0.512	0.497	0.638
560 < IC ≤ 570	0.357	0.710	0.695	0.508	0.495	0.634
570 < IC ≤ 580	0.354	0.706	0.690	0.504	0.493	0.630
580 < IC ≤ 590	0.350	0.703	0.686	0.499	0.491	0.627
590 < IC ≤ 600	0.347	0.699	0.682	0.495	0.489	0.623
600 < IC ≤ 610	0.343	0.695	0.678	0.490	0.487	0.619
610 < IC ≤ 620	0.340	0.691	0.673	0.486	0.485	0.616
620 < IC ≤ 630	0.336	0.687	0.669	0.482	0.484	0.612
630 < IC ≤ 640	0.332	0.683	0.665	0.477	0.482	0.608
640 < IC ≤ 650	0.329	0.679	0.660	0.473	0.479	0.604
650 < IC ≤ 660	0.325	0.675	0.656	0.469	0.478	0.601
660 < IC ≤ 670	0.322	0.671	0.652	0.464	0.476	0.597
670 < IC ≤ 680	0.318	0.667	0.648	0.460	0.474	0.593
680 < IC ≤ 690	0.315	0.663	0.643	0.455	0.472	0.589
IC > 690	0.311	0.660	0.639	0.451	0.470	0.586

Table 2 - Initial Capacity Marginal De-Rating Curves for Pumped Hydro Storage Units

						Hou	rs of Sto	rage⁵					
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
$0 \leq IC \leq 10$	0	0.072	0.127	0.178	0.217	0.253	0.283	0.305	0.325	0.345	0.365	0.387	0.412
10 < IC ≤ 20	0	0.070	0.126	0.175	0.214	0.249	0.279	0.302	0.323	0.342	0.362	0.384	0.407
20 < IC ≤ 30	0	0.068	0.124	0.172	0.212	0.246	0.275	0.300	0.321	0.340	0.359	0.381	0.402
30 < IC ≤ 40	0	0.066	0.123	0.170	0.210	0.244	0.272	0.298	0.319	0.338	0.357	0.379	0.399
40 < IC ≤ 50	0	0.065	0.122	0.169	0.207	0.241	0.270	0.295	0.317	0.336	0.355	0.376	0.395
50 < IC ≤ 60	0	0.064	0.120	0.167	0.206	0.239	0.268	0.294	0.316	0.334	0.354	0.374	0.392
60 < IC ≤ 70	0	0.063	0.119	0.165	0.204	0.238	0.267	0.293	0.315	0.334	0.353	0.372	0.389
70 < IC ≤ 80	0	0.063	0.118	0.164	0.203	0.237	0.266	0.292	0.314	0.333	0.352	0.370	0.385
80 < IC ≤ 90	0	0.062	0.117	0.163	0.202	0.235	0.265	0.291	0.313	0.332	0.351	0.368	0.382
90 < IC ≤ 100	0	0.061	0.116	0.161	0.200	0.234	0.264	0.289	0.312	0.331	0.350	0.366	0.379
100 < IC ≤ 110	0	0.061	0.115	0.160	0.199	0.233	0.262	0.288	0.310	0.330	0.348	0.364	0.375
110 < IC ≤ 120	0	0.060	0.114	0.159	0.197	0.231	0.260	0.286	0.308	0.327	0.345	0.360	0.371
120 < IC ≤ 130	0	0.060	0.113	0.158	0.196	0.230	0.259	0.284	0.305	0.325	0.342	0.356	0.367
130 < IC ≤ 140	0	0.059	0.112	0.157	0.195	0.228	0.257	0.282	0.303	0.322	0.339	0.353	0.362
140 < IC ≤ 150	0	0.059	0.111	0.155	0.194	0.226	0.255	0.280	0.301	0.320	0.336	0.349	0.358
150 < IC ≤ 160	0	0.059	0.111	0.154	0.192	0.225	0.253	0.278	0.298	0.318	0.333	0.346	0.354
160 < IC ≤ 170	0	0.058	0.110	0.153	0.191	0.223	0.251	0.275	0.296	0.315	0.330	0.342	0.349
170 < IC ≤ 180	0	0.058	0.109	0.152	0.189	0.222	0.249	0.273	0.293	0.312	0.326	0.338	0.345
180 < IC ≤ 190	0	0.058	0.108	0.151	0.188	0.220	0.247	0.271	0.291	0.309	0.323	0.334	0.340
IC > 190	0	0.058	0.108	0.150	0.187	0.218	0.245	0.269	0.288	0.306	0.319	0.330	0.336

 $^{^{5}}$ For non-half hour values of Hours of Storage, the De-Rating Factor shall be interpolated between the two closest De-Rating Factors. Where Hours of Storage > 6 hours, the De-Rating Factor shall be interpolated between the 6-hour De-Rating Factor in Table 2 and the 24-hour System Wide De-Rating Factor in Table 1. For example, a 100 MW 12-hour Pumped Hydro Storage Unit would have a De-Rating Factor of 0.379 + (12 - 6) * (0.810 - 0.379) / (24 - 6) = 0.523.

		Hours of Storage ⁶											
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
$0 \leq IC \leq 10$	0	0.066	0.117	0.163	0.199	0.232	0.259	0.280	0.299	0.317	0.335	0.356	0.379
10 < IC ≤ 20	0	0.064	0.115	0.160	0.196	0.229	0.255	0.277	0.296	0.314	0.332	0.352	0.374
20 < IC ≤ 30	0	0.062	0.114	0.158	0.194	0.226	0.252	0.275	0.294	0.312	0.330	0.350	0.370
30 < IC ≤ 40	0	0.061	0.113	0.156	0.192	0.224	0.250	0.273	0.292	0.310	0.328	0.348	0.366
40 < IC ≤ 50	0	0.060	0.112	0.155	0.190	0.221	0.247	0.271	0.291	0.308	0.326	0.345	0.363
50 < IC ≤ 60	0	0.059	0.111	0.153	0.189	0.219	0.246	0.269	0.289	0.307	0.324	0.343	0.360
60 < IC ≤ 70	0	0.058	0.109	0.152	0.187	0.218	0.245	0.268	0.288	0.306	0.324	0.341	0.357
70 < IC ≤ 80	0	0.058	0.108	0.151	0.186	0.217	0.243	0.267	0.287	0.305	0.323	0.340	0.354
80 < IC ≤ 90	0	0.057	0.107	0.149	0.185	0.216	0.242	0.266	0.286	0.304	0.322	0.338	0.350
90 < IC ≤ 100	0	0.056	0.106	0.148	0.183	0.214	0.241	0.265	0.285	0.303	0.321	0.336	0.347
100 < IC ≤ 110	0	0.056	0.105	0.147	0.182	0.213	0.240	0.264	0.284	0.302	0.319	0.333	0.344
110 < IC ≤ 120	0	0.055	0.105	0.146	0.181	0.212	0.238	0.262	0.282	0.299	0.316	0.330	0.340
120 < IC ≤ 130	0	0.055	0.104	0.145	0.180	0.210	0.237	0.260	0.279	0.297	0.313	0.326	0.336
130 < IC ≤ 140	0	0.055	0.103	0.144	0.178	0.209	0.235	0.258	0.277	0.295	0.311	0.323	0.332
140 < IC ≤ 150	0	0.054	0.102	0.142	0.177	0.207	0.233	0.256	0.275	0.293	0.308	0.320	0.328
150 < IC ≤ 160	0	0.054	0.101	0.141	0.176	0.206	0.232	0.254	0.273	0.290	0.305	0.316	0.324
160 < IC ≤ 170	0	0.054	0.101	0.140	0.175	0.204	0.230	0.252	0.270	0.288	0.302	0.312	0.320
170 < IC ≤ 180	0	0.053	0.100	0.139	0.173	0.203	0.228	0.250	0.268	0.285	0.298	0.309	0.315
180 < IC ≤ 190	0	0.053	0.099	0.138	0.172	0.201	0.226	0.248	0.266	0.282	0.295	0.305	0.311
IC > 190	0	0.053	0.099	0.138	0.171	0.200	0.224	0.245	0.263	0.279	0.292	0.301	0.307

Table 3 - Initial Capacity Marginal De-Rating Curves for Other Storage Units

Table 4 - Initial Capacity Marginal De-Rating Curves for DSUs with Maximum Down Time ≤ 6 hours

					Hours	of Dema	nd Redu	ction Ca	pability				
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
0 ≤ IC ≤ 10	0	0.043	0.075	0.104	0.128	0.149	0.167	0.181	0.193	0.207	0.220	0.238	0.256
10 < IC ≤ 20	0	0.041	0.073	0.102	0.126	0.146	0.164	0.179	0.192	0.205	0.218	0.236	0.253
20 < IC ≤ 30	0	0.040	0.072	0.101	0.124	0.144	0.162	0.177	0.190	0.203	0.217	0.234	0.251
30 < IC ≤ 40	0	0.039	0.072	0.100	0.123	0.143	0.160	0.175	0.189	0.202	0.216	0.233	0.250
40 < IC ≤ 50	0	0.038	0.071	0.098	0.121	0.141	0.158	0.174	0.188	0.201	0.214	0.232	0.248
50 < IC ≤ 60	0	0.037	0.070	0.097	0.120	0.140	0.157	0.173	0.187	0.200	0.214	0.231	0.246
60 < IC ≤ 70	0	0.037	0.069	0.096	0.119	0.139	0.157	0.172	0.186	0.199	0.214	0.230	0.245
70 < IC ≤ 80	0	0.036	0.069	0.096	0.119	0.138	0.156	0.172	0.186	0.199	0.213	0.229	0.244
80 < IC ≤ 90	0	0.036	0.068	0.095	0.118	0.138	0.155	0.171	0.185	0.199	0.213	0.228	0.243
90 < IC ≤ 100	0	0.036	0.067	0.094	0.117	0.137	0.154	0.170	0.184	0.198	0.213	0.227	0.241
100 < IC ≤ 110	0	0.035	0.067	0.093	0.116	0.136	0.154	0.169	0.184	0.197	0.212	0.226	0.240
110 < IC ≤ 120	0	0.035	0.066	0.093	0.115	0.135	0.153	0.168	0.182	0.196	0.211	0.225	0.238
120 < IC ≤ 130	0	0.035	0.066	0.092	0.114	0.134	0.152	0.167	0.181	0.195	0.210	0.223	0.236
130 < IC ≤ 140	0	0.035	0.065	0.091	0.114	0.133	0.151	0.166	0.180	0.194	0.208	0.222	0.235
140 < IC ≤ 150	0	0.034	0.065	0.091	0.113	0.132	0.150	0.165	0.179	0.193	0.207	0.220	0.233
150 < IC ≤ 160	0	0.034	0.064	0.090	0.112	0.131	0.149	0.164	0.178	0.192	0.206	0.219	0.232
160 < IC ≤ 170	0	0.034	0.064	0.089	0.111	0.131	0.148	0.163	0.177	0.191	0.204	0.217	0.230
170 < IC ≤ 180	0	0.034	0.063	0.089	0.111	0.130	0.147	0.162	0.176	0.190	0.203	0.216	0.228
180 < IC ≤ 190	0	0.034	0.063	0.088	0.110	0.129	0.146	0.161	0.174	0.188	0.202	0.214	0.227
IC > 190	0	0.034	0.063	0.087	0.109	0.128	0.145	0.160	0.173	0.187	0.200	0.213	0.225

Table 5 - Initial Capacity Marginal De-Rating Factors for Wind and Solar

Wind	Solar
0.061	0.108

Initial Annual Run Hour Limit	New Gas Turbine	New Steam Turbine	Other
≤ 500 hours	0.14	0.14	1
> 500 ≤ 1500 hours	0.43	0.43	1
>1500 hours	1	1	1

 6 For non-half hour values of Hours of Storage, the De-Rating Factor shall be interpolated between the two closest De-Rating Factors. Where Hours of Storage > 6 hours, the De-Rating Factor shall be interpolated between the 6-hour De-Rating Factor in Table 3 and the 24-hour System Wide De-Rating Factor in Table 1. For example, a 100 MW 12-hour Other Storage Unit would have a De-Rating Factor of 0.347 + (12 - 6) * (0.810 - 0.347) / (24 - 6) = 0.501.

⁷ It is important to note that the derating factor used to assess Substantial Completion of any Awarded New Capacity will be based on the actual values for the commissioned Generator Units in accordance with G.3.1.4A of the Capacity Market Code, which is subject to modification in accordance with SEM-22-063 in respect of Annual Run-Hour Limits.

2.2. Final Capacity Requirement

D.3.1.2 (b) the final Capacity Requirement for the Capacity Year to be used in the Capacity Auction;

The Capacity Requirement is determined by the Regulatory Authorities in accordance with Section D.3.1.3 (b) of the Capacity Market Code. The approved Capacity Requirement is set out in Table 7.

Table 7 - Capacity	/ Requirement
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Capacity Requirement (MW)	
7,236	

N.B. The actual capacity to be auctioned is subject to adjustment to account for a number of considerations and will be set out in the final Demand Curve and Locational Capacity Constraint Required Quantities set by the Regulatory Authorities and published in the Final Auction Information Pack.

2.3. Indicative Demand Curve

D.3.1.2 (c) an indicative Demand Curve to be used in the Capacity Auction;

The Demand Curve is determined by the Regulatory Authorities in accordance with section F.3 of the Capacity Market Code. The approved **indicative** Demand Curve is set out in Table 8:

De-Rated Capacity (MW)	Demand Curve Point (€/MW per year)	
ТВС	ТВС	

Table 8 - Indicative Demand Curve to be used in the Capacity Auction

N.B. The final Demand Curve will be set by the Regulatory Authorities prior to the issue of the Final Auction Information Pack and shall be confirmed within the Final Auction Information Pack.

2.4. Locational Capacity Constraints

D.3.1.2 (d) for each Locational Capacity Constraint for the relevant Capacity Year to be used in the Capacity Auction, the final nodes on the Transmission System (and the Distribution System, as applicable) to which the Locational Capacity Constraint applies;

In accordance with Section C.2 of the Capacity Market Code and the approved Locational Capacity Constraints methodology (<u>SEM-17-040</u>), the System Operators calculate and submit to the Regulatory Authorities any Locational Capacity Constraints applicable to the Capacity Year for their determination. The approved Level 1 and Level 2 Locational Capacity Constraints are set out in Table 9 and Table 10.

Level	Locational Capacity Constraint Area Name	Associated Level 2 Locational Constraint Area(s)	Locational Capacity Constraint Area Nodes	Required Quantity (MW)
1	L1-1: Northern Ireland		All nodes within Northern Ireland	Value to be provided in Final Auction Information Pack
1	L1-2: Ireland	L2-1: Greater Dublin L2-2: Rest of Ireland	All nodes within Ireland	Value to be provided in Final Auction Information Pack

Table 9 - Level 1 Locational Capacity Constraints

Table 10 - Level 2 Locational Capacity Constraints

Level	Locational Capacity Constraint Area Name	Associated Level 1 Locational Constraint Area	Locational Capacity Constraint Area Nodes		Required Quantity (MW)
	L2-1: Greater Dublin	L1-2: Ireland	Adamstown 110 kV [ADM] Airton 110 kV [ATN] Artane 110 kV [ATN] Aungierstown 110 kV [AUN] Baltrasna 110 kV [BAL] Barnakyle 110 kV [BAL] Belcamp 220/110 kV [BLC] Blackrock 110 kV [BLA] Bracetown 220 kV [BRT] Cabra 110 kV [CAB] Castlebagot 110 kV [CBT] City West 110 kV [CTW] Cloghran 110 kV [CLG] Clonee 220 kV [CLE] College Park 110 kV [CCL] College Park 110 kV [COL] Corduff 220/110 kV [CDU] Corkagh 110 kV [CKG] Cromcastle 110 kV [CRM] Cruiserath 220 kV [CRH] Dardistown 110 kV [DND] Finglas 220/110 kV [FIN] Fortunestown 110 kV [FTT] Francis Street 110 kV [FRA] Glasmore 110 kV [GRA]	Grange Castle 110 kV [GCA] Harolds Cross 110 kV [HAR] Heuston Square 110 kV [HEU] Huntstown 220 kV [HUN] Inchicore 220/110 kV [INC] Irish Town 220 kV [ISH] Kilmahud 110 kV [KUD] Kilmore 110 kV [KUD] Macetown 110 kV [KUB] McDermott 110 kV [MCE] McDermott 110 kV [MCE] Milltown 110 kV [ML] Misery Hill 110 kV [MHL] Nangor 110 kV [MHL] Nangor 110 kV [NAN] Newbury 110 kV [NBY] North Quays 110 kV [NQS] North Wall 220 kV [NW] Pelletstown 110 kV [PTN] Poolbeg 220/110 kV [PDP] Ringsend 110 kV [RE] Ryebrook 110 kV [RYZ] Shellybanks 220 kV [SHL] Snughborough 110 kV [SVN] Trinity 110 kV [TRN] Wolfe Tone 110 kV [WOL] Whitebank 110 kV [WBK]	Value to be provided in Final Auction Information Pack
	L2-2: Rest of Ireland	L1-2: Ireland	All nodes within Ireland except those in Greater Dublin		Value to be provided in Final Auction Information Pack

2.5. Awarded Capacity

D.3.1.2 (e) at the date of the Initial Auction Information Pack, how much Awarded Capacity has already been procured for the relevant Capacity Year;

The Awarded Capacity for Capacity Year 2027/2028 is set out in Table 11.

Table 11 - Awarded Capacity

Awarded Capacity (MW)		
L1-1: Northern Ireland	932.377	
L1-2: Ireland	1881.475	
L2-1: Greater Dublin	735.616	
L2-2: Rest of Ireland	1145.859	

2.6. Auction Price Cap

D.3.1.2 (f) the final Auction Price Cap to be used in the Capacity Auction (in Euro and Sterling);

As set out in the SEM Committee decision <u>SEM-23-017</u>, the approved Auction Price Caps are set out in Table 12.

Table 12 - Auction Price Caps

Auction Price Cap (€/MW per year)	Auction Price Cap (£/MW per year)	
163,757.00	150,852.95	

2.7. Existing Capacity Price Cap

D.3.1.2 (g) the final Existing Capacity Price Cap to be used in the Capacity Auction (in Euro and Sterling);

As set out in the SEM Committee decision <u>SEM-23-017</u>, the approved Existing Capacity Price Caps are set out in Table 13.

Table 13 - Existing Capacity Price Caps

Existing Capacity Price Cap (€/MW per year)	Existing Capacity Price Cap (£/MW per year)	
54,586.00	50,284.62	

2.8. New Capacity Investment Rate Threshold

D.3.1.2 (h) the final €/MW rate of the New Capacity Investment Rate Threshold to be used in the Capacity Auction;

As set out in the SEM Committee decision <u>SEM-23-017</u>, the approved New Capacity Investment Rate Thresholds are set out in Table 14.

New Capacity Investment Rate Threshold (€/MW)	New Capacity Investment Rate Threshold (£/MW)
300,000.00	276,360.00

Table 14 - New Capacity Investment Rate Thresholds

2.9. Annual Stop-Loss Limit Factor

D.3.1.2 (i) the final Annual Stop-Loss Limit Factor applicable to Awarded Capacity allocated in the Capacity Auction;

As set out in the SEM Committee decision <u>SEM-23-017</u>, the approved Annual Stop-Loss Limit Factor is set out in Table 15.

Annual Stop-Loss Limit Factor		
1.5		

Table 15 - Annual Stop-Loss Limit Factor

2.10. Billing Period Stop-Loss Limit Factor

D.3.1.2 (j) 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 <u>SEM-23-017</u>, the approved Billing Period Stop-Loss Limit Factor is set out in Table 16.

Billing Period Stop-Loss Limit Factor
0.5

2.11. Annual Capacity Payment Exchange Rate

D.3.1.2 (k) the indicative Annual Capacity Payment Exchange Rate applicable to Awarded Capacity allocated in the Capacity Auction;

The approved indicative Annual Capacity Payment Exchange Rates are set out in Table 17.

Annual Capacity Payment Exchange Rate (f/f)	Annual Capacity Payment Exchange Rate $({\mathfrak E}/{\mathfrak E})$
€1 = £0.9212	£1 = €1.0855

Table 17 - A	Annual Capacity	Payment Excl	hange Rates
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The Annual Capacity Payment Exchange Rate is calculated as average of the annual forward rate for five consecutive working days from 7th February 2023 to 13th February 2023. The annual forward rate is calculated as the average of the forward exchange rates for the last Friday of each month of the Capacity Year 2027/2028 taken on each of these five days.

The Annual Capacity Payment Exchange Rate in Table 17 has been used to convert Euro values of the Auction Price Cap, the Existing Capacity Price Cap and the New Capacity Investment Rate Threshold into Sterling values.

N.B. The final Annual Capacity Payment Exchange Rate will be included in the Final Auction Information Pack. This rate has been calculated using the same approach that was used for calculating the SEM Annual Capacity Exchange Rate.

2.12. Increase and Decrease Tolerance

D.3.1.2 (I) 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 <u>SEM-23-017</u>, the approved Increase and Decrease Tolerances are set out in Table 18.

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

Table 18 - Increase and Decrease	e Tolerances per Technology Class
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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).

In accordance with SEM Committee decision <u>SEM-18-030</u>, 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.

2.13. Performance Securities

D.3.1.2 (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 <u>SEM-23-017</u>, the final Performance Security Posting Dates / Events and final Performance Security Rates are set out in Table 19.

Date / Event	Performance Security Rate (€/MW)
From Capacity Auction completion to 27 months prior to the beginning of the Capacity Year	20,000
27-13 months prior to the beginning of the Capacity Year	30,000
From 13 months to beginning of Capacity Year	40,000
From beginning of Capacity Year	50,000

2.14. Termination Charge Rates

D.3.1.2 (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 <u>SEM-23-017</u>, the final Termination Charge rates are set out in Table 20.

Date / Event	Termination Rate (€/MW)
From Capacity Auction completion to 27 months prior to the beginning of the Capacity Year	20,000
27-13 months prior to the beginning of the Capacity Year	30,000
From 13 months to beginning of Capacity Year	40,000
From beginning of Capacity Year	50,000

Table 20 - Termination Charge Rates

2.15. Administered Scarcity Price

D.3.1.2 (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 consultation <u>SEM-23-017</u>, the anticipated values of the Full Administered Scarcity Price and the Reserve Scarcity Price Curve are set out in Table 21.

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

Table 21 - Anticipated Administered Scarcity Price Curve

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 22.

Strike Price Component	Value	Unit
PCARBONm	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	[PFUELOm Index (\$/t) x Exchange Rate (€/\$) + PFUELOm Transport (€/t)] x 0.025 (t/GJ) x 3.6 (GJ/MWh)	€/MWh
PCARBON _m Index	ICE ECX EUA Futures - EUA - (monthly) ⁸	€/tCO2e
PFUELNG _m Index	ICE UK Natural Gas Index (monthly)	p/therm
PFUELNG _m Transport	0.0424 ⁹	£/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 ¹⁰	€/t
FTHEORYPUy	15	%
FCARBONINGy	0.202	tCO2e/MWh
FCARBONINOy	0.277	tCO2e/MWh
PTHEORYDSUy	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 ¹¹	therm/GJ
LSFO calorific value	0.025 ¹²	t/GJ

Table 22 - Anticipated Strike Price calculation components

2.17. Capacity Auction Timetable

D.3.1.2 (q) the final Capacity Auction Timetable as it relates to events after the publication of the Initial Auction Information Pack (subject to section D.2).

The approved Capacity Auction Timetable is set out in Table 23.

 $^{^{\}rm 8}$ The December price for a given year will apply to all months falling within that year.

⁹ NI natural gas transport adder used in I-SEM PLEXOS Forecast Model 2016-17.

¹⁰ Based on ROI LSFO transport adder used in I-SEM PLEXOS Forecast Model 2016-17.

¹¹ I-SEM PLEXOS Forecast Model 2016-17

¹² I-SEM PLEXOS Forecast Model 2016-17

Table 23 - Capacity Auction Timetable

	Event	Date
1	Initial Auction Information Pack Date: the last publication date for the Initial Auction Information Pack	02/03/2023
2	Opt-out Notification Date: the last date a Participant can submit an Opt-out Notification	30/03/2023
3	Exception Application Date: the last time a Participant can make an Exception Application to the Regulatory Authorities	14/04/2023
4	Qualification Application Date: the last date a Participant can submit an Application for Qualification in respect of the Capacity Auction	14/04/2023
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	07/06/2023
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	15/08/2023
7	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	07/09/2023
8	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	07/09/2023
9	Date for finalising the Locational Capacity Constraint Limits for the Capacity Auction	07/09/2023
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	07/09/2023
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	21/09/2023
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	28/09/2023 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	28/09/2023 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)	03/10/2023
15	Capacity Auction Provisional Results Date: the date by which the System Operators are expected to provide provisional Capacity Auction results to Participants	03/10/2023
15A	Capacity Auction Provisional Results Publication Date: the date by which the System Operators are expected to publish provisional Capacity Auction Results	10/10/2023
16	Capacity Auction Approval Date: the date by which the Regulatory Authorities are expected to approve the Capacity Auction results	02/11/2023
17	Capacity Auction Results Date: the date the System Operators are expected to publish the Capacity Auction results	09/11/2023
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	21/12/2023

2.18. Timeframe for Reviewable Decisions and Qualification Disputes

Appendix C: Table B: Timeframe for Reviewable Decisions and Qualification Disputes.

The approved timetable for Reviewable Decisions and Qualification Disputes is set out in Table 24.

	Event	Date
1	Timeframe within which Applications for Review must be lodged	09/06/2023
2	Timeframe within which System Operators may reject a non-complying Application for Review	13/06/2023
3	Timeframe within which Participant must comply with a request for further information	27/06/2023
4	Timeframe within which System Operators must notify Participant of outcome of their reconsideration	04/07/2023
5	Latest date for giving a Dispute Notice in relation to a Qualification Dispute	07/07/2023
6	Latest date by which the CMDRB shall give its decision in relation to a Qualification Dispute	11/08/2023

2.19. Implementation Progress Reporting Schedule

J.4.2.3 The System Operators shall publish:

- (a) the reporting schedule for Awarded New Capacity initially in the applicable Capacity Auction Timetable; and
- (b) any amended reporting schedule within two Working Days of receiving the schedule or amended schedule from the Regulatory Authorities.

Table 25 lists the Implementation Progress Reporting Schedule for the 2027/2028 T-4 Capacity Auction.

Report Name	Date
Implementation Progress Report 1	21/12/2023
Implementation Progress Report 2	14/06/2024
Implementation Progress Report 3	13/12/2024
Implementation Progress Report 4	16/06/2025
Implementation Progress Report 5	12/12/2025
Implementation Progress Report 6	18/06/2026
Implementation Progress Report 7	18/12/2026
Implementation Progress Report 8	21/06/2027
Implementation Progress Report 9	17/12/2027
Implementation Progress Report 10	16/06/2028
Implementation Progress Report 11	15/12/2028

Table 25 - Implementation Progress Reporting Schedule

The obligation also remains on the Participant with Awarded Capacity to report upon achieving the following Milestones (where applicable):

- (i) Substantial Financial Completion;
- (ii) Commencement of Construction Works; and
- (iii) Substantial Completion.

2.20. Substantial Financial Completion Period

Table 26 includes the Substantial Financial Completion Period applicable to this Capacity Auction.

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

(r) The Substantial Financial Completion Period.

Table 26 - Substantial Financial Completion Period

Substantial Financial Completion Period
18 months

2.21. Long Stop Date

Table 27 includes the Long Stop Dates applicable to this Capacity Auction. The inclusion within the Initial Auction Information Pack is to draw attention to the change in definition of Long Stop Date as a result of the SEM Committee Decision (<u>SEM-18-030</u>).

Table 27 - 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 st October 2027	31 st March 2029

2.22. Final Capacity Aggregation Threshold

In accordance with D.3.1.2 (s) of the Capacity Market Code, Table 28 includes the Final Capacity Aggregation Threshold applicable to this Capacity Auction.

Table 28 - Final Capacity Aggregation Threshold

Final Capacity Aggregation Threshold (MW)	
10	

3. Capacity Market Code Items Change Table

Information contained within this Initial Auction Information Pack (IAIP) may be subject to change during the publication of the Final Auction Information Pack (FAIP). The FAIP is due to be published in accordance with the Capacity Auction Timetable. 29 provides a breakdown of Capacity Market Code items which are deemed to be Final/Indicative and Anticipated.

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 Quantities	Values not included in IAIP	Final
Awarded Capacity	Indicative	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 Charge Rates	Final	Final
Administered Scarcity Price	Anticipated	Anticipated
Strike Price	Anticipated	Anticipated
Capacity Auction Timetable	Indicative	Final
Final Capacity Aggregation Threshold	Final	Final

Table 29 - Canad	rity Market Code I	Items Change Table
Table 27 - Capa	ity market code i	terns change rable