



SINGLE ELECTRICITY MARKET COMMITTEE

**Round 15 of Quarterly Directed Contracts
Q4 2021 to Q3 2022**

Information Paper

9th June 2021

SEM-21-051

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1. Introduction

This paper provides information on the quantities and pricing for the upcoming quarterly DC subscription round, Round 15, covering the period Q4 2021 to Q3 2022 inclusive. Suppliers will also receive notification from the Regulatory Authorities (RAs) of their updated DC eligibilities for Round 15 by Wednesday, 9th June 2021.

2. Directed Contract Quantities

DC subscription windows are typically held every quarter, with DCs being allocated on a rolling basis up to 5 quarters ahead. For the fifteenth round of the quarterly DC offerings under the revised SEM arrangements: Round 15, the Primary Subscription Window will be held from Tuesday 15th June to Thursday 17th June 2021 inclusive, with the associated DC Supplemental Subscription Window on Thursday 24th June 2021. DCs in Round 15 will be offered in quarterly segments for the periods Q4 2021, Q1 2022, Q2 2022 and Q3 2022.

There are three DC products in the market: Baseload, Mid-Merit and Peak. Suppliers can elect to subscribe for any given product for which they are eligible in any particular quarter from ESB. The definitions of the products are set out in the ESB PG DC Subscription Rules.

These are as follows:

- *Baseload Product*: For Trading Periods at the Contract Quantity arising in all hours.
- *Mid-merit Product*: For Trading Periods at the Contract Quantity during the hours beginning at 07:00 and ending at 23:00 on Business Days and for Trading Periods on days that are not Business Days at 80% of the Contract Quantity.
- *Peak Product*: For Trading Periods arising during the hours beginning at 17:00 and ending at 21:00 on all days during October, November, December, January, February and March at the Contract Quantity.

The RAs used the Herfindahl Hirschman Index (HHI) to set DC quantities and continue to use a target HHI level of 1,150 for the period Q4 2021 to Q3 2022.

The DC quantities to be offered by ESB for Q4 2021 to Q3 2022 in Round 15 are set out in Table 1 below.

Quarter	Baseload	Mid-Merit	Peak
Q4 2021	0	131	25
Q1 2022	0	56	6
Q2 2022	0	126	N/A
Q3 2022	0	144	N/A

Table 1: ESB DCs for Q4 2021 to Q3 2022 in forthcoming Round 15 Subscription, MW

The RAs note that changes to underlying market fundamentals including the growing share of wind generation, have resulted in reduced baseload running hours for certain ESB plant. This has contributed to zero baseload volumes being made available for DC Round 15.

The cumulative (all rounds) percentage of DC quantities offered by ESB to date for Q4 2021 to Q3 2022 (including these Round 15 quantities) are also shown in Table 2 below.

Quarter	Baseload	Mid-Merit	Peak
Q4 2021	100%	100%	-
Q1 2022	75%	75%	-
Q2 2022	50%	50%	N/A
Q3 2022	25%	25%	N/A

Table 2: Percentage of DCs offered to date (incl. this Round 15 subscription)¹

Per section 3.2.13 of the November 2017 decision paper ([SEM-17-081](#)), the SEM Committee has changed part of the Market Concentration methodology, such that a fixed fraction will be solely used in the first round that a product is offered. In subsequent rounds, up to the penultimate round, previous volumes sold are deducted from the annual total determined by the Market Concentration Model in that round; then the balance is multiplied by the remaining fixed fraction. In the final round, all the previous volumes sold are deducted from the annual total determined. There is no fixed fraction in the final round for which a product is on offer. A further clarification to this procedure was outlined in [SEM-19-030a](#) whereby in the event that a product was oversold in the first three rounds, the oversold volume will be deducted from

¹ Note that the exact percentages shown in this table will vary depending on outturn DC volumes in future subscription rounds.

downstream products.

If the volumes in the previous rounds for a particular product add up to more than the annual total volume determined by the Market Concentration Model in the last round, then the volumes for that product are set to zero.

3. Directed Contract Pricing

The prices of DCs are determined by regression formulae that express the DC CfD Fixed Price in a given quarter and for a given product (Baseload, Mid-Merit or Peak) as a function of forward fuel and carbon prices.

The pricing formulae are updated every quarter in line with the established rolling approach to DCs as per [SEM-12-026](#) and [SEM-17-081](#).

The CfD Strike Price for each transaction will be set using the published formulae and associated forward fuel prices, as set out in the Subscription Rules [SEM-18-036d](#).

The DC seller, ESB, will apply the approved published fuel and carbon indices to the regression formulae each day throughout the subscription window and notify suppliers who have elected to subscribe for DC products on that day of the calculated CfD Fixed Price. ESB contracts will be priced in euro.

It should be noted that if, between the publication date of the pricing formulae and a time at which it is applied during the subscription period, forward fuel or carbon markets move to a point outside the range of values for which there is sufficient confidence in the pricing formulae, the RAs reserve the right to suspend subscription and rerun the econometric pricing model or otherwise to amend the determination of the DC CfD Fixed Prices to correct any mispricing. The rerun would be done using the prevailing forward fuel and carbon prices as inputs. In this case, the resulting formulae would replace the original formulae and would be used to establish CfD Fixed Prices thereafter. The formulae may also be rerun if there is significant change to plant availability. The subscription window would reopen once the formulae have been revised.

The DC regression formulae for Round 15 take the following form:

$$\text{CfD Fixed Price}_{q,p} = \alpha_{q,p} + \beta_{q,p} * \text{Gas}_q + \delta_{q,p} * \text{Coal}_q + \epsilon_{q,p} * \text{CO2}_q$$

where:

CfD Fixed Price_{q,p} = DC Fixed Price (in €/MWh) for the relevant quarter (q) and product (p), i.e., baseload, mid-merit and peak.

$\alpha_{q,p}$ = formula constant, which may vary by quarter (q) and product (p).

$\beta_{q,p}$, $\delta_{q,p}$, and $\epsilon_{q,p}$ = formula coefficients, which may vary by quarter (q) and product (p).

Gas_q = the price (in pence sterling per therm) for quarterly Intercontinental Exchange Natural Gas Futures for the relevant quarter, as published on <http://data.theice.com> as the “ICE UK Natural Gas Futures – NBP – (Quarters²)” ÷ (GBP/EURO Exchange Rate) / 100.

Coal_q = the price (in US dollars per tonne) for quarterly ARA Coal Futures as reported on <http://data.theice.com> as “Rotterdam Coal Futures – ARA” ÷ USD/EURO Exchange Rate.

CO₂_q = the settle price (in Euro per tonne of Carbon Dioxide) for the December month Intercontinental Exchange ECX EUA Carbon futures as reported on <http://data.theice.com> as “ICE ECX EUA Futures – EUX – (monthly)” for the given calendar year. The December price for a given year will apply to all quarters falling within that year.

The values of the constants and the independent variable coefficients are set out in the following table.

Coefficients					
Multiply Gas coefficient by euro/therm Gas price, Coal coefficient by euro/tonne Coal price, and CO ₂ coefficient by euro/tonne CO ₂ price.					
Contract (p)	Quarter (q)	Constant ($\alpha_{q,p}$)	Gas ($\beta_{q,p}$)	Coal ($\delta_{q,p}$)	CO ₂ ($\epsilon_{q,p}$)
Baseload	Q4 21	19.90	51.921	0.0838	0.4794
Midmerit 1	Q4 21	27.15	55.915	0.0896	0.5088
Peak	Q4 21	42.42	65.472	0.1221	0.5950
Baseload	Q1 22	18.67	53.501	0.0783	0.4943

² As per SEM-21-005 (*‘Access to ICE commodity data and updated DC price calculation’*) only monthly Gas and Coal forward prices are now available from ICE. The quarterly forward price for Gas and Coal is now calculated by taking the average price across the three months of the respective quarter.

Midmerit 1	Q1 22	25.17	59.281	0.0783	0.5124
Peak	Q1 22	38.98	75.133	0.0717	0.5647
Baseload	Q2 22	10.38	62.758	0.0465	0.4435
Midmerit 1	Q2 22	12.67	64.227	0.0673	0.4980
Baseload	Q3 22	9.22	61.150	0.0494	0.4488
Midmerit 1	Q3 22	11.51	61.752	0.0721	0.5054

4. Subscription Rules

The Subscription Rules ([SEM-18-036d](#)) for the DCs have been made evergreen. To allow this to happen two items which require updating will be included in the Information Paper published by the RAs prior to each quarterly DC round. These are the details of the matrix of ESTSEM p,q prices for the purpose of credit cover calculations and Bank Holidays.

Prices for Credit Cover calculations

The matrix of ESTSEM p,q prices for the purpose of credit cover calculations based on closing fuel and carbon prices from 13th May 2021 are as follows:

	ESTSEM p,q		
	Baseload per MWh	Mid-Merit per MWh	Peak per MWh
Q4 2021	€94.92	€107.49	€137.66
Q1 2022	€97.30	€109.77	€139.66
Q2 2022	€76.44	€84.01	N/A
Q3 2022	€72.36	€79.57	N/A

5. Directed Contract Round 16

As per [SEM-20-067](#), the Primary Subscription Window of Directed Contract Round 16 will be between Tuesday 14th to Thursday 16th September 2021. The Supplemental Subscription Window will take place on Thursday 23rd September 2021.

Public/Bank Holidays 2020 and 2021

The following dates are those known at the time of execution to be bank and public holidays (in the Republic of Ireland and Northern Ireland) between 1st January 2021 and 31st December 2022:

01 January 2021
17 March 2021
02 April 2021
05 April 2021
03 May 2021
31 May 2021
07 June 2021
12 July 2021
02 August 2021
30 August 2021
25 October 2021
25 December 2021
27 December 2021
03 January 2022
17 March 2022
15 April 2022
18 April 2022
02 May 2022
02 June 2022
03 June 2022
06 June 2022
12 July 2022
01 August 2022
29 August 2022
31 October 2022
25 December 2022
26 December 2022

