



SINGLE ELECTRICITY MARKET COMMITTEE

**Round 23 of Quarterly Directed Contracts
Q4 2023 to Q3 2024**

Information Paper

7th June 2023

SEM-23-042

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1. Introduction

This paper provides information on the quantities and pricing for the upcoming quarterly Directed Contract (DC) subscription round, Round 23, covering the period Q4 2023 to Q3 2024 inclusive. Suppliers will also receive notification from the Regulatory Authorities (RAs) of their updated DC eligibilities for Round 23 by Thursday 8th June 2023.

In DC Round 18, market participants were notified of amendments made to the process of calculating DC pricing formulae ([SEM-22-017](#)). Participants were also informed of the RAs' decision to hold the Primary Subscription Window over six days.

A consultation on whether the amendment to the duration of the Primary Subscription Window should be enduring was published on 15th February 2023 ([SEM-23-015](#)). In April 2023, the SEM Committee decided that the Directed Contracts' Primary Subscription Window would be held over six days, across two consecutive weeks, and will be implemented as an enduring amendment to the Directed Contracts process, subject to review ([SEM-23-026](#)). Further, the SEM Committee decided participating suppliers shall not be obliged to purchase specific volumes of Direct Contracts on specified days. The current arrangement where it is entirely at each supplier's discretion as to which day(s) they choose to participate in any given Directed Contract Round shall be maintained. The SEM Committee is implementing such decisions in DC Round 23.

2. Directed Contract Quantities

DC subscription windows are typically held every quarter, with DCs allocated on a rolling basis up to five quarters ahead. DCs for Round 23 will be offered in quarterly segments for the periods Q4 2023, Q1 2024, Q2 2024 and Q3 2024.

Round 23 DC offerings will be held as follows:

- **The DC Round 23 Primary Subscription Window will be held over six days, across two consecutive weeks:**
 - Tuesday 13th - Thursday 15th June 2023 inclusive; and

- Tuesday 20th - Thursday 22nd June 2023 inclusive.

The associated Round 23 Supplemental Subscription Window will be held on Thursday 29th June 2023.

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 use a target HHI level of 1,150 for the period Q4 2023 to Q3 2024.

The DC quantities to be offered by ESB for Q4 2023 to Q3 2024 in Round 23 are set out in Table 1 below.

Quarter	Baseload	Mid-Merit	Peak
Q4 2023	0	59	96
Q1 2024	0	56	79
Q2 2024	0	116	n/a
Q3 2024	0	91	n/a

Table 1: ESB DCs for Q4 2023 to Q3 2024 in the forthcoming Round 23 Subscription (MW)

The cumulative (all rounds) percentage of DC quantities offered by ESB to date for Q4 2023 to Q3 2024 (including these Round 23 quantities) are shown in Table 2 below.

Quarter	Baseload	Mid-Merit	Peak
Q4 2023	100%	100%	N/A
Q1 2024	75%	75%	N/A
Q2 2024	50%	50%	50%
Q3 2024	25%	25%	25%

Table 2: Percentage of DCs offered to date (incl. this Round 23 subscription)¹

As outlined in [SEM-21-085](#), the SEM Committee has decided the amendment to the methodology of calculating DC allocations that took place during DC Round 16 will be implemented in subsequent rounds thereafter. As per [SEM-21-065](#), the RAs will re-allocate DCs from market participants who cannot participate in the DC round (as a result of not executing a Financial Energy Master Agreement (FEMA) with ESBPG) to suppliers with a Maximum Import Capacity (MIC) value less than 5% of the total market MIC.

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 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.

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

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. Section 3 of [SEM-22-017](#) outlined amendments made to the process of calculating DC pricing formulae in DC Round 18. Such amendments are also implemented in DC Round 23.

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 use the prevailing forward fuel and carbon prices as inputs. In this case, the resulting formulae would replace the original formulae and 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 are revised.

The DC regression formulae for the forthcoming round will 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.

α_{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 stated in [SEM-21-005](#), the RAs notified industry of updates to the calculation of quarterly “ICE UK Natural Gas Futures – NBP” ÷ (GBP/EURO Exchange Rate).

Coal_q = the price (in US dollars per tonne) for quarterly ARA Coal Futures. As noted in [SEM-21-005](#), the RAs noted updates to the calculation of quarterly “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 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. As noted in [SEM-21-005](#), the commodity data provider, ICE, transitioned from a public to a fee-based subscription for access to Carbon data.

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 CO₂ coefficient by euro/tonne CO₂ price.					
Contract (p)	Quarter (q)	Constant ($\alpha_{q,p}$)	Gas ($\beta_{q,p}$)	Coal ($\delta_{q,p}$)	CO₂ ($\epsilon_{q,p}$)
Baseload	Q4 23	25.99	59.878	0.0000	0.4011
Midmerit 1	Q4 23	30.43	65.260	0.0000	0.4245
Peak	Q4 23	42.73	75.115	0.0000	0.5009
Baseload	Q1 24	26.22	61.146	0.0000	0.4185
Midmerit 1	Q1 24	31.10	66.665	0.0000	0.4356
Peak	Q1 24	45.14	75.940	0.0000	0.5097
Baseload	Q2 24	20.69	65.416	0.0000	0.4174
Midmerit 1	Q2 24	23.78	69.962	0.0000	0.4498
Baseload	Q3 24	20.54	64.985	0.0000	0.3893
Midmerit 1	Q3 24	23.93	69.683	0.0000	0.4198

4. Subscription Rules

The Subscription Rules ([SEM-18-036d](#)) for the DCs have been made evergreen. To allow this, 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 18th May 2023 are as follows²:

	ESTSEM p,q		
	Baseload € per MWh	Mid-Merit € per MWh	Peak € per MWh
Q4 2023	138.48	151.89	183.64
Q1 2024	160.83	175.91	211.37
Q2 2024	150.97	163.43	-
Q3 2024	146.56	159.28	-

5. Directed Contract Round 24

As per Information Paper ([SEM-22-095](#)), the Primary Subscription Window of Directed Contract Round 24 is scheduled to be held over six days, across two consecutive weeks:

- Tuesday 12th – Thursday 14th September; and
- Tuesday 19th – Thursday 21st September.

The associated Supplemental Subscription Window is scheduled to take place on Thursday 28th September. Should there be a need to amend the above dates, the RAs will notify stakeholders in advance.

² The RAs note that the prices calculated are based on the most recently validated SEM PLEXOS Model and incorporate the 2021 Generation Capacity Statement (GCS) Inputs. Per information received from SEMOpx, the market coupling date of the Greenlink Interconnector has been updated to 11th September 2024. Additionally, SEMOpx advised for current modelling purposes, the loss rate of the Greenlink Interconnector is 2.5%. Further, within the SEM PLEXOS Model the retirement date of Bord na Móna's Edenderry Unit has been extended beyond 2023. Due to the unprecedented increase in the volatility of commodity prices in recent times, and in order to be more reflective of the current market developments, the RAs have conducted modelling closer to the subscription window commencement date.

6. Public/Bank Holidays 2023/2024

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 Q4 2023 and Q3 2024:

30 October 2023
25 December 2023
26 December 2023
1 January 2024
5 February 2024
18 March 2024
29 March 2024
1 April 2024
6 May 2024
27 May 2024
3 June 2024
12 July 2024
5 August 2024
26 August 2024
28 October 2024