Directed Contract Round 18:
Revised Subscription Window Dates and Amendments to the Process of Calculating Pricing Formulae

Information Paper

SEM-22-017

4th May 2022

1. Introduction

1.1 On March 16th 2022, the SEM Committee published a notification to market participants of their decision to postpone Directed Contracts (DC) Round 18 (SEM-22-008) due to the unprecedented, sustained, and significant volatilities in commodity markets.

1.2 On April 4th 2022, the SEM Committee published an update of the postponement of DC Round 18 (SEM-22-11), noting the Regulatory Authorities (RAs, i.e. CRU and UREGNI) decision to further extend the postponement of DC Round 18 until at least mid-May 2022. The extension of the postponement was due to a significant and credible risk that the model at the time (and the associated DC regression formulae) may not have remained fit for purpose at the time of both the primary and supplemental subscription window. The extension of the postponement was to allow more time for RAs to liaise with external consultants in order to conduct further analysis and consider any potential amendments to the process of forecasting DC pricing formulae within a highly volatile commodity price environment.

1.3 The RAs are hereby notifying market participants of their decision to proceed with DC Round 18 and set out the dates of the Primary and Supplemental Subscription Windows, DC Round 18 Primary Subscription Window will be held across two consecutive weeks: Tuesday 10th May 2022 until Thursday 12th May 2022, inclusive followed by Tuesday 17th May 2022 until Thursday 19th May 2022, inclusive.

1.4 Further, the RAs are notifying market participants of the amendments implemented to the process of calculating DC pricing formulae, as a result of consultancy support obtained.

2. DC Round 18 Updated Subscription Window Dates

2.1 DCs in Round 18 cover quarterly segments for the periods: Q3 2022, Q4 2022, Q1 2023 and Q2 2023. DC Round 18 Primary Subscription Window will be held across two consecutive weeks: Tuesday 10th May 2022 until Thursday 12th May 2022, inclusive followed by Tuesday 17th May 2022 until Thursday 19th May 2022, inclusive. The associated Supplemental Subscription Window will then be held on Thursday 26th of May 2022.

2.1 The rationale for the introduction of a six-day Primary Subscription Window is three-hold. Firstly, it will allow all eligible suppliers to mitigate some of the fuel price volatility risks by spreading their eligible volumes over additional trading days if they wish to do so. For the avoidance of doubt, there no obligation for any eligible supplier to avail of this option. Secondly, a six-day subscription window, may, dependent on eligible suppliers trading strategy, allow ESB to more effectively hedge exposure to price volatility. Finally, the RAs are cognisant of the fact the publication of this Information Note confirming the resumption DC Round 18, is close to start of the Primary Subscription Window, this is due to amendments to the process of calculating DC pricing formulae (discussed in Section 3 of this Information Note). The addition of three (3) extra subscription dates will facilitate suppliers obtaining their applicable volumes in advance of the Supplemental Subscription Window.

2.2 RAs will endeavour to publish an Information Paper of the DC quantities and pricing formulae, and inform all eligible suppliers of the volumes of DCs they are entitled to at least 3 working days in advance of the start of the Round 18 Primary Subscription Window.

3. Amendments to the Process of Calculating DC Pricing Formulae

3.1 As noted in SEM-22-11, the RAs have obtained external consultancy support to conduct further analysis and consider any potential amendments to the process of forecasting DC pricing formulae within a highly volatile commodity price environment.

3.2 The appointed consultants, NERA Economic Consulting, provided RAs with recommendations to amend some aspects of the process of calculating DC pricing formulae. Such amendments, outlined below, will be implemented in DC Round 18.

3.2.1 A core input to the DC Pricing Model is 53 fuel price scenarios. Previously, the NBP gas price scenarios were set separately for “Summer” natural gas (i.e. Quarter 2 and 3) and “Winter” natural gas (i.e. Quarter 1 and 4), given the potential for different price dynamics between the seasons. As a result of the current global events which continue to underpin commodity price volatility, the nearer-term quarters’ natural gas commodity price contracts are found to be higher priced and more volatile in comparison to longer term contracts. As Round 18 products cover quarterly segments Q3 2022, Q4 2022, Q1 2023 and Q2 2023, NERA recommend that the NBP gas price scenarios for the regression be based on “Near” term (i.e. Quarter 3 and 4 2022 and Quarter 1 2023) and “Far” term (Quarter 2 2023), rather than the previous method, which covered “Summer” (i.e. Quarter 3 2022 and Quarter 2 2023), and “Winter” (i.e. Quarter 4 2022 and Quarter 1 2023). Based on analysis of recent forward fuel market volatilities, NERA and RAs agreed upon an appropriate volatility level. RAs have implemented the recommendation to the fuel price scenarios to be used in DC Round 18.

3.2.2 The appointed consultants, NERA, noted that the price cap property and regional VOLL of the SEM PLEXOS Model (SEM-21-086) was set to €500/MWh, to be in line with the strike price of the Reliability Option contract in the SEM. However, the full formula for the strike price of the Reliability Option determines the higher of €500/MWh (the variable PTHEORYDSU, and is set at €500/MWh for a theoretical bidding prices of a DSU), the marginal fuel and carbon emissions costs of a theoretical natural gas peaking unit, and the marginal fuel and carbon emissions costs of a theoretical fuel oil peaking unit. Given current relatively high fuel prices, the Reliability Option strike price is expected to be set based on peaker costs rather than the €500/MWh floor price. Thus, NERA recommend applying a variable price cap to the hourly prices from the SEM PLEXOS model, set equal to the strike price of the Reliability Option determined based on the fuel and carbon price scenarios inputted into PLEXOS during the modelling process of DC Round 18[1].

3.2.3 In practice, NERA recommend implanting the updated price cap in two stages. First, NERA recommend updating the price cap and regional VOLL properties of the SEM PLEXOS Model (SEM-21-086) from €500/MWh to €3000/MWh (the latter being the price cap in the SEM Day Ahead market). Second, NERA recommend performing a post-processing calculation of a *de facto* hourly price cap based on the Reliability Option strike price implied by the fuel and carbon price inputs into PLEXOS. Hourly electricity prices from PLEXOS that are above the Reliability Option strike price are thus set equal to the Reliability Option strike price. It is noted that in the unlikely event that unserved energy occurs in the SEM PLEXOS model, the PLEXOS price cap (now set to €3000/MWh) is reached, but in post processing these prices are set to the Reliability Option strike price. The RAs have implemented this recommendation during the modelling process of DC Round 18.

3.2.4 For the avoidance of doubt, the RAs note that the use of the Reliability Option strike price as a price cap affects the hourly prices from PLEXOS, prior to the running of the regressions that produce the DC pricing formulae. No further adjustment related to the Reliability Option strike price will be applied to the prices that the DC pricing formulae produce.

3.3 NERA recommended the amendments to the process of calculating DC pricing formulae be implemented as a temporary measure. Cognisant that the subsequent Directed Contract Round 19 is scheduled to be held in June 2022 (SEM-21-076), the RAs will review the appropriateness of the current amendments to the calculation of DC pricing formulae during the modelling process of Directed Contract Round 19 and will inform market participants

[1] The strike price is calculated in accordance with the Trading and Settlement Code: SEM-17-024c (F16.2)

should they revert back to the original process of calculating DC pricing formulae.

3.4 Should market participants have any queries or observations regarding SEMC’s decision as outlined in this Information Paper, please contact the RAs: mmg@cru.ie or kevin.baron@uregni.gov.uk.