MODIFICATION PROPOSAL FORM			
Proposer *(Company)*	**Date of receipt** *(assigned by Secretariat)*	**Type of Proposal** *(delete as appropriate)*	**Modification Proposal ID** *(assigned by Secretariat)*
Tynagh Energy Limited	**2nd June 2022**	**Standard**	**Mod_09_22**

Contact Details for Modification Proposal Originator		
Name	**Telephone number**	**Email address**
Cormac Daly		**c.daly@tynaghenergy.ie**

Modification Proposal Title

Exclusion of difference charges for generators during non RO event periods

Documents affected *(delete as appropriate)*	**Section(s) Affected**	**Version number of T&SC or AP used in Drafting**
T&SC Part B	F.18.5.5	**Current SEMO website version**

Explanation of Proposed Change
(mandatory by originator)

This modification seeks to amend the manner in which Within-day Difference Charges are applied to market participants. The purpose of this modification is to implement the same changes proposed in a previous modification "*Mod_02_19"* which was approved by the Modifications Committee in 2019, before being rejected by the SEM Committee on the grounds that additional analysis and discussion be carried out. Tynagh considers that this rejection was on a procedural, rather than a principles basis, and that it can subsequently be reconsidered with additional discussion and analysis.

The Capacity Remuneration Mechanism Detailed Design Decision Paper 1 (SEM-15-103) implies that Within-day Difference Charges should be applied "*in all settlement periods when the MRP exceeds the Strike Price".* Prior to making this decision, the SEM Committee consulted on the best option for setting the Market Reference Price (MRP). After assessing six different options, the SEM Committee decided to adopt a *Split Market Price* option. This means that Reliability Options will have multiple reference prices for each market (DAM, IDA, BM). The SEM-15-103 Decision Paper states that difference payments will be paid when these I-SEM reference prices exceed the Reliability Option Strike Price ("*an RO event*").

The current drafting of the Trading and Settlement Code (TSC) means that generators are exposed to paying Difference Charges at all times, regardless of whether the reference prices exceed the Strike Price. This was discussed and approved by the Modifications Committee on 20 February 2019. Ultimately, the SEM Committee decided not to approve the modification, on the basis that further analysis and discussion are required before the modification could be implemented.

Tynagh are submitting the same algebraic changes to the TSC as proposed under Mod_02_19. However, we are proposing that a specific workshop is held in order to facilitate discussion on this modification. Additionally, Tynagh requests that the SEMO carries out analysis on the potential impact of this modification, in order to facilitate a SEM Committee decision on the modification.

We believe this modification proposal to be increasingly relevant, particularly considering the significant commodity price volatility and high gas prices which mean that conventional generators are currently exposed to a significant downside risk due to the Strike Price. If this change is implemented, a downside risk will still exist during RO Events which should incentivise capacity providers to be available and provide when generation margins are tight. Tynagh believes this is aligned with the design of the CRM.

Legal Drafting Change
*(Clearly show proposed code change using **tracked** changes, if proposer fails to identify changes, please indicate best estimate of potential changes)*

As stated above, the legal drafting changes proposed under this mod are the same as the changes proposed under modification proposal Mod_02_19.

F.18.5.5

The Market Operator shall calculate the Within-day Trade Difference Quantity ($QDIFFCTWD_{\Omega\gamma k}$), the Within-day Trade Difference Charge ($CDIFFCTWD_{\Omega\gamma k}$), the Intraday Tracked Difference Quantity ($QDIFFTRACKID_{\Omega\gamma k}$) and the Balancing Tracked Difference Quantity ($QDIFFTRACKB_{\Omega\gamma k}$) for each Capacity Market Unit, Ω, which does not represent an Autoproducer Unit, in ascending order of each position, k, in the ranked set derived in accordance with paragraph F.18.5.4, in Imbalance Settlement Period, γ, as follows:

$$QDIFFTRACKID_{\Omega\gamma(k=0)} = QDIFFDA_{\Omega\gamma}$$

$$QDIFFTRACKB_{\Omega\gamma(k=0)} = QDIFFDA_{\Omega\gamma}$$

$If\ the\ quantity\ at\ position, k, is\ QTID_{u\gamma k} > 0, then$

$$QDIFFCTWD_{\Omega\gamma k} = Min\left(\sum_{u \in \Omega} QEX_{u\gamma} - QDIFFTRACKID_{\Omega\gamma(k-1)}, QCOB_{\Omega\gamma} - QDIFFTRACKB_{\Omega\gamma(k-1)}, QDIFFDA_{\Omega\gamma} + \sum_{k'<k} QTID_{u\gamma k} + \sum_{k'<k} QTB_{u\gamma k} + QTID_{u\gamma k} - QDIFFTRACKB_{\Omega\gamma(k-1)}\right)$$

$$CDIFFCTWD_{\Omega\gamma k} = Max\left(QDIFFCTWD_{\Omega\gamma k}, 0\right) \times Min\left(0, PSTR_m - PTID_{u\gamma k}\right)$$

$else\ if\ the\ quantity\ at\ position, k, is\ QTB_{u\gamma k} > 0, then$

$$QDIFFCTWD_{\Omega\gamma k} = Min\left(QCOB_{\Omega\gamma} - QDIFFTRACKB_{\Omega\gamma(k-1)}, QDIFFDA_{\Omega\gamma} + \sum_{k'<k} QTID_{u\gamma k} + \sum_{k'<k} QTB_{u\gamma k} + QTB_{u\gamma k} - QDIFFTRACKB_{\Omega\gamma(k-1)}\right)$$

if PIMBγ $\geq PSTR_m$

$CDIFFCTWD_{\Omega\gamma k} = Max\left(QDIFFCTWD_{\Omega\gamma k}, 0\right) \times Min\left(0, PSTR_m - PTB_{u\gamma k}\right)$

else

$CDIFFCTWD_{\Omega\gamma k} = 0$

else

$$QDIFFCTWD_{\Omega\gamma k} = 0$$

$$QDIFFTRACKID_{\Omega\gamma k} = Min\left(Max\left(QDIFFTRACKID_{\Omega\gamma(k-1)}, QDIFFDA_{\Omega\gamma} + \sum_{k' \le k} QTID_{u\gamma k}\right), QCOB_{\Omega\gamma}, \sum_{u \in \Omega} QEX_{u\gamma}\right)$$

$$QDIFFTRACKB_{\Omega\gamma k} = Min\left(Max\left(QDIFFTRACKB_{\Omega\gamma(k-1)}, Min\left(QDIFFDA_{\Omega\gamma} + \sum_{k' \le k} QTID_{u\gamma k}, \sum_{u \in \Omega} QEX_{u\gamma}\right) + \sum_{k' \le k} QTB_{u\gamma k}\right), QCOB_{\Omega\gamma}\right)$$

where:

(a) $\sum_{k' \le k}$ is a summation over values across all positions in the ranked set prior to and including the current position, k, in the ranked set. Calculations for the first position, (k = 1), will not have a previous position, k', and the result for this sum shall be the value in the current position, k, in the ranked set;

(b) $\sum_{k' < k}$ is a summation over values across all positions in the ranked set prior to the current position, k, in the ranked set. Calculations for the first position, (k = 1), will not have a previous position, k', and the result for this sum shall be zero;

(c) $\sum_{u \in \Omega}$ is a summation over all Generator Units, u, which comprise the Capacity Market Unit, Ω;

(d) $QCOB_{\Omega\gamma}$ is the Obligated Capacity Quantity for Capacity Market Unit, Ω, in Imbalance Settlement Period, γ;

(e) $QDIFFDA_{\Omega\gamma}$ is the Day-ahead Difference Quantity for Capacity Market Unit, Ω, in Imbalance Settlement Period, γ;

(f) $QTID_{u\gamma k}$ is the Intraday Trade Quantity for Generator Unit, u, in the position, k, in the ranked set, in Imbalance Settlement Period, γ;

(g) $QTB_{u\gamma k}$ is the Balancing Trade Quantity for Generator Unit, u, in the position, k, in the ranked set, in Imbalance Settlement Period, γ;

(h) $QEX_{u\gamma}$ is the Ex-Ante Quantity for Generator Unit, u, in Imbalance Settlement Period, γ;

(i) $PTID_{u\gamma k}$ is the Intraday Trade Price associated with the Intraday Trade Quantity ($QTID_{u\gamma k}$) for Generator Unit, u, in the position, k, in the ranked set, in Imbalance Settlement Period, γ;

(j) $PTB_{u\gamma k}$ is the Balancing Trade Price associated with the Balancing Trade Quantity ($QTB_{u\gamma k}$) for Generator Unit, u, in the position, k, in the ranked set, in Imbalance Settlement Period, γ;

(k) $PSTR_m$ is the Strike Price for Month, m, which contains Imbalance Settlement Period, γ;

(l) (k – 1) is for the previous position in the ranked set; and

(m) (k = 0) is for the 0^{th} position in the ranked set, i.e. where a calculation is being performed on the first position in the ranked set, (k = 1), for which there is no previous position.

Modification Proposal Justification

(Clearly state the reason for the Modification)

Under the current drafting of the Trading and Settlement Code (TSC), RO holders are subject to difference charges in both pricing and settlement at all times, rather than only during settlement periods where the Market Reference Price exceeds the RO Strike Price. Due to high commodity prices and significant volatility, this means that capacity providers face significant downside risk as a result of the Strike Price.

A unit which is constrained on for reasons of system security which submits a BMCOP compliant complex offer above the strike price is subject to difference payments at all times. Exposure to these non-RO event difference charges would result in a unit under recovering its costs, with market participants having no control over the duration and magnitude of this loss.

Further, the licence conditions (listed below) relating to cost reflective bidding, require the bidding of genuine marginal costs, but the participant would not actually recover these costs, where they exceed the RO Strike Price, at any stage which is an uneconomic and distortionary outcome.

For licences granted in Ireland under the Electricity Regulation Act 1999, the Cost Reflective Bidding Licence Condition is:

Condition 15 of the Generation Licence granted under Section 14(1)(a);

Condition 17 of the Generation Licence granted to ESB under Section 14(1)(a);

Condition 19 of the Supply Licence granted under Section 14(1)(b); and

Condition 25 of the Public Electricity Supply Licence granted under Section 14(1)(h).

For licences granted in Northern Ireland under the Electricity (Northern Ireland) (Order)1992, the Cost Reflective Bidding Licence Condition is

Condition 17 of the Generation Licence granted under Article 10(1)(a); and

Condition 57 of the Supply Licence granted to Power NI under Article 10(1)(c).

If this modification proposal is implemented, we envision that the incentive of Reliability Options, to be available at times of reduced generation margin, will still exist, but that the downside risk will be reduced.

Code Objectives Furthered

(State the Code Objectives the Proposal furthers, see Section 1.3 of Part A and/or Section A.2.1.4 of Part B of the T&SC for Code Objectives)

(b) to facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner;
(c) to facilitate the participation of electricity undertakings engaged in the generation, supply or sale of electricity in the trading arrangements under the Single Electricity Market;
(d) to promote competition in the Single Electricity Market;
(f) to ensure no undue discrimination between persons who are parties to the Code; and
(g) to promote the short-term and long-term interests of consumers of electricity on the island of Ireland with respect to price, quality, reliability, and security of supply of electricity.

Implication of not implementing the Modification Proposal

(State the possible outcomes should the Modification Proposal not be implemented)	
Units dispatched for non-energy reasons in order to manage constraints and ensure security of supply will not recover the costs they incur for doing so. This could result in uneconomic outcomes and wider market distortions.	
Working Group *(State if Working Group considered necessary to develop proposal)*	**Impacts** *(Indicate the impacts on systems, resources, processes and/or procedures; also indicate impacts on any other Market Code such as Capacity Marker Code, Grid Code, Exchange Rules etc.)*
	Change to central market systems to handle the additional "IF statement" to set the difference payment to zero when the Balancing Market MRP is less than the RO Strike Price.
Please return this form to Secretariat by email to balancingmodifications@sem-o.com	