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05 November 2021

RE: Application for Derogation as allowed under Section G.1.2.3 of the Trading and Settlement Code (T&SC)

Dear Colin, John,

SEMO is seeking derogation from the application of all Non-Performance Difference Charges (CDIFFCNP) between 12 August 2021 and 29 September 2021. As this submission outlines these charges would not have occurred if Mod_02_21 was effective in the market systems, these charges were material in nature and the non-application of these charges will not result in the socialisation fund being drawn below the reasonable level of €15m as set out in SEM-21-063.

Background

In order to maintain security of supply on several dates in September 2021, EirGrid and SONI entered into high price SO-SO trades with National Grid ESO. These trades either reduced ex-ante market nominated energy flows from the SEM to Great Britain or increased energy imports from Great Britain to the SEM. In the SEM, these security of supply events were mainly caused by persistently low wind availability and exceptionally high forced outage rates on conventional generation. The market in Great Britain also experienced low plant margins and high prices during September which resulted in ex-ante nominated flows to Great Britain even during periods of low plant margins and security of supply issues in the SEM. Figure 1 illustrates the exceptional nature of the GB imbalance prices in September, and in particular on the 7th, 9th and 15th.

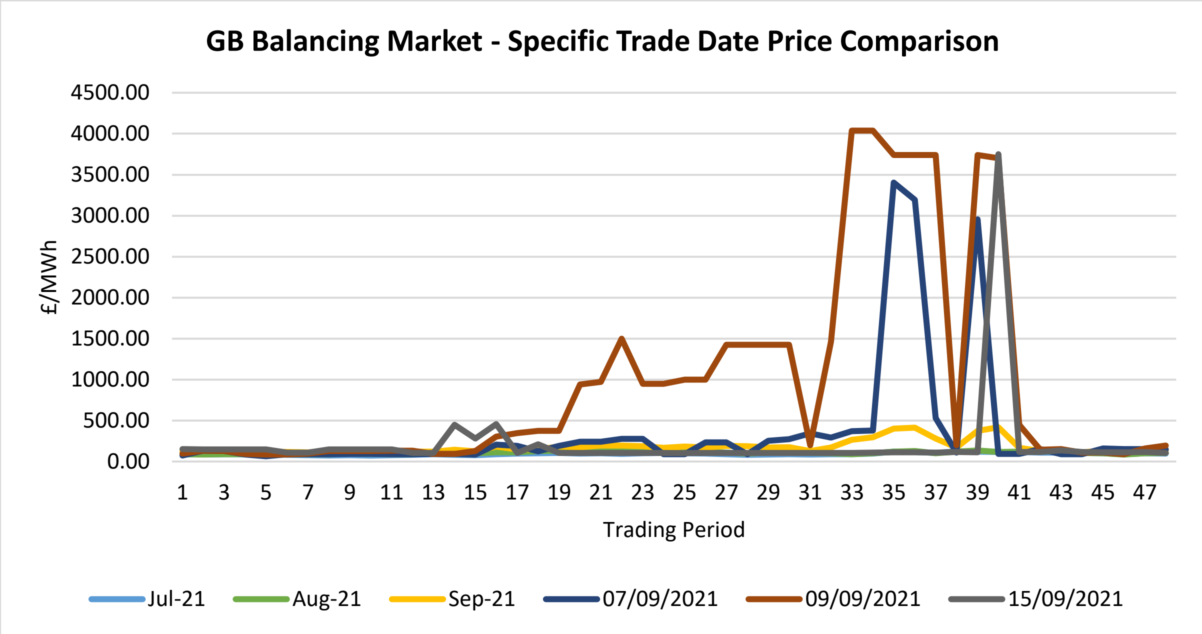

Figure 1: GB Balancing Market – Specific Trade Date Price Comparison

As the trade prices offered by National Grid ESO apply to the same near-real-time conditions that apply to imbalance price setting, these SO trade prices were also exceptionally high. Figures 2 illustrate SO Interconnector Trade Quantity and Prices during the relevant periods. Furthermore, all time periods from 12 August 2021 to 29 September 2021 when the Imbalance Settlement Price (ISP) was greater than the €500/MWh capacity market strike price are plotted. This illustrates the perfect correlation between high SO trade prices and RO (Reliability Option) events. There were no trade periods between 12th August and 29th September when RO events were caused by issues other than SO trades. Therefore, if Mod_02_21 had been effective in the market systems there would have been no RO events during the period.

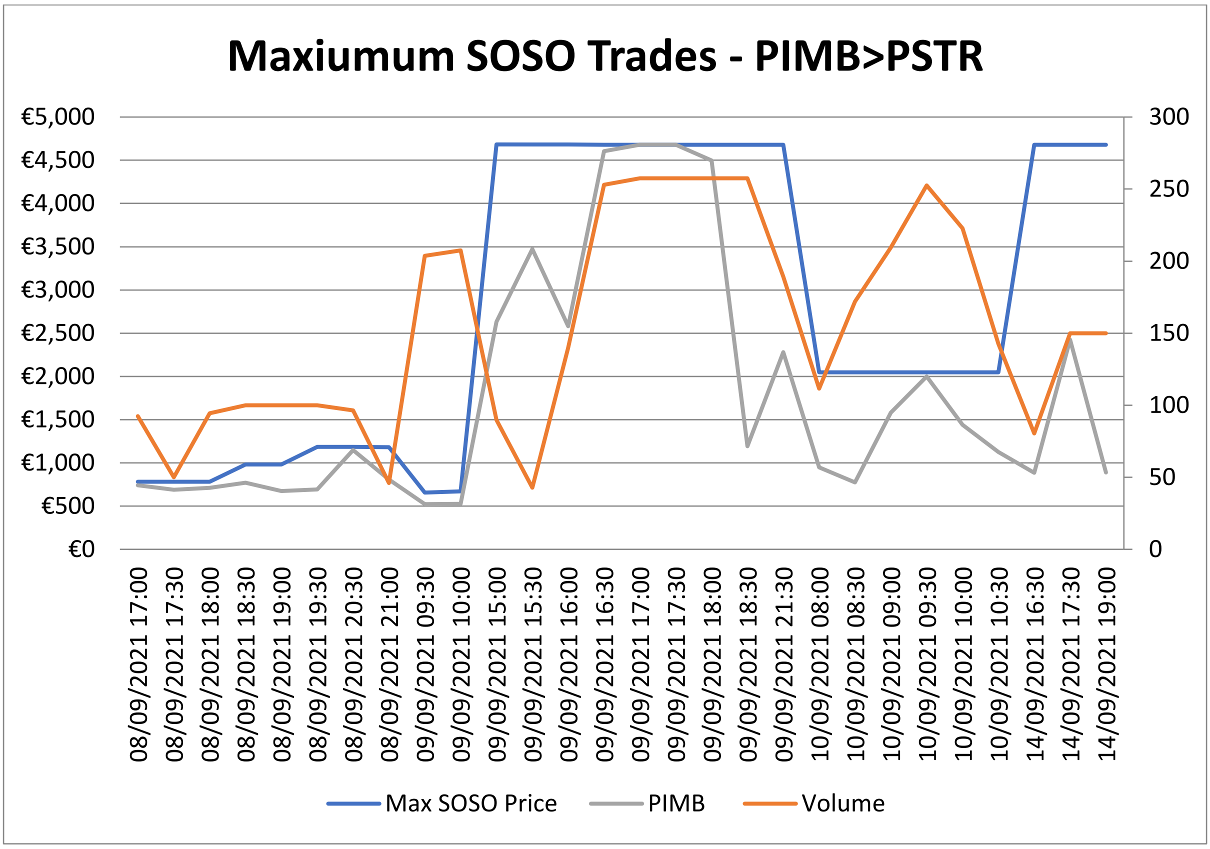

Figure 2: Maximum SOSO Trades – PIMB>PSTR

As a result of the volume and frequency of high price SO trades, which had to be entered into in order to maintain security of supply, there were record high imbalance prices and therefore a record number of RO events in the SEM during the period. This is illustrated in Figures 3 and 4.

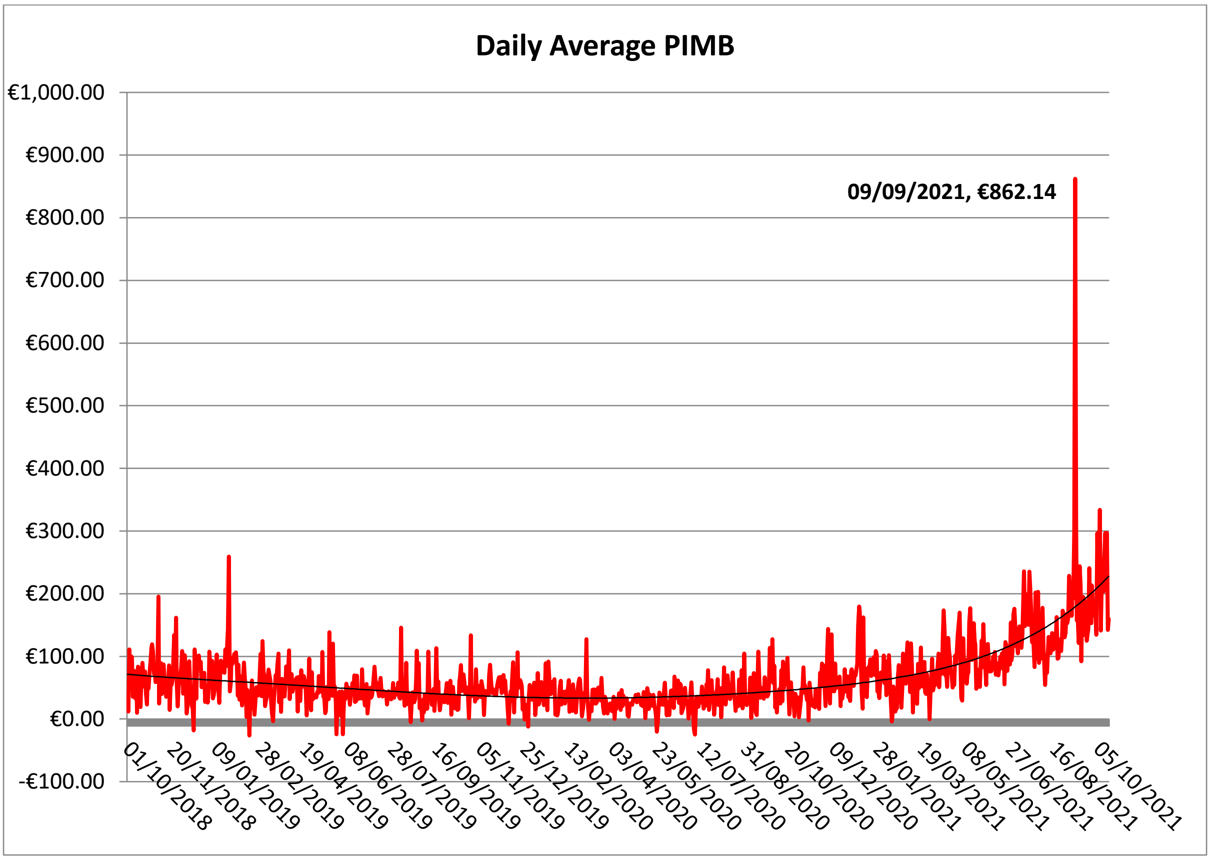

Figure 3: Daily Average PMB

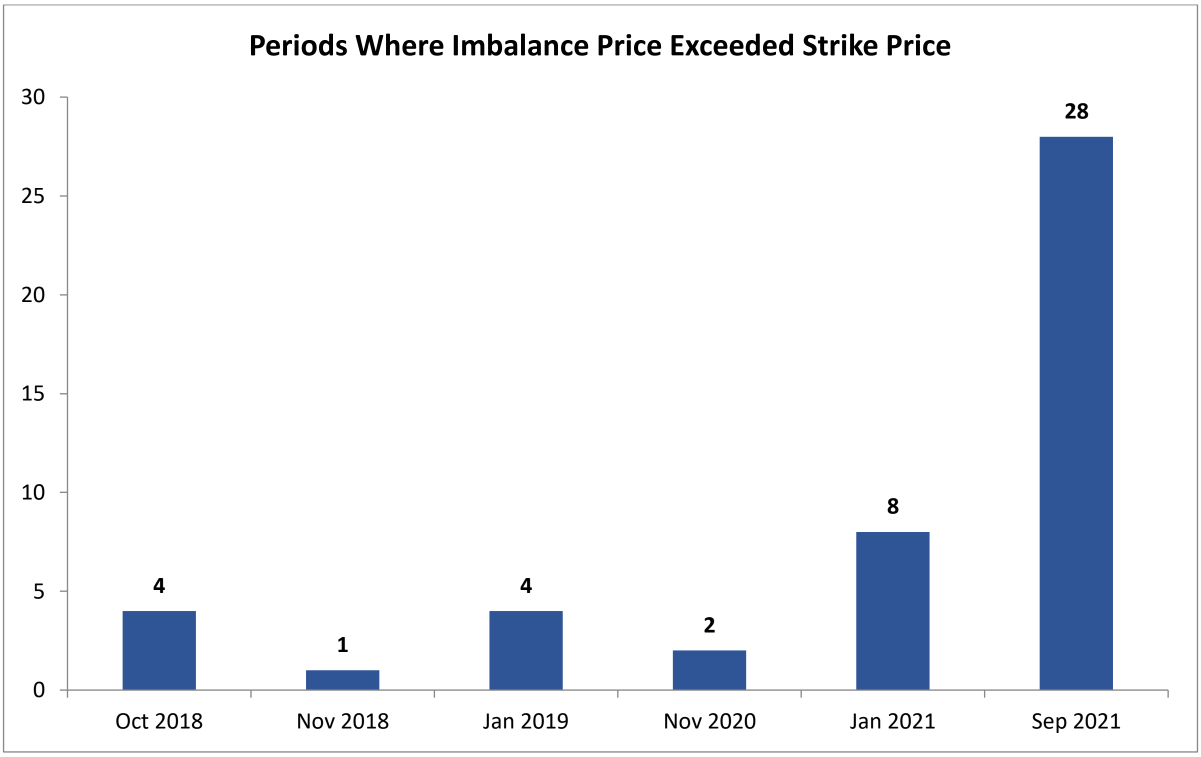

Figure 4: Periods Where Imbalance Price Exceeded Strike Price

Materiality of Non-Performance Differences Charges

As set out in Section F.18.7 of the T&SC Part B, the Market Operator is obliged to calculate the Non-Performance Difference Charge (CDIFFCNP) for each Capacity Market Unit, which does not represent an Autoproducer Unit, in each Imbalance Settlement Period.

Units that receive a position in the Capacity Market are awarded a RO and as such have an obligated capacity quantity, they are obliged to meet during high price events (I.E. PIMB > PSTR). If the PIMB goes above the PSTR in a settlement period and a unit fails to meet their obligated capacity quantity through the allowed mechanisms (for example: ex-ante or balancing market position) in that period, they are deemed to have not met their obligated capacity and are therefore charged non-performance charges via CDIFFCNP. Difference charges in market timeframes only apply up to this obligated value. For trades above the obligated value the Participant retains energy market revenue.

As was the case in this scenario, if a unit fails to meet an obligation to trade, this results in large charges on the unit without any revenue to help cover the charge. This creates a strong incentive to provide energy reliably in times of need, but also creates a potential risk of the participant making a loss. The maximum Non-Performance Difference Charge a Capacity Market Unit can incur in a year is set as 1.5 times its Capacity Payment revenue. This limit were not met on the dates in question. Nevertheless, large and onerous charges were calculated in the settlement runs relating to the SO trade prices and applied due to the fact that Mod_02_21 was not effective in the market systems. On the basis of the data presented in Tables 1, 2 and Figure 5, which demonstrate the materiality of these charges, SEMO proposed to put a hold[1] on the issuing of these charges to allow for further engagement with both Regulatory Authorities and market participants.

Number of Participants	CDIFFCNP as a % of CCP	Withheld CDIFFCNP	2020/2021 CCP
3	0%-5%	€4,716,907	€131,569,307
2	5%-10%	€382,418	€5,554,556
2	10%-15%	€237,888	€1,701,197
2	15%-20%	€9,082,970	€48,391,158
3	20%-25%	€4,041,290	€17,412,748
8	25%-30%	€6,566,828	€25,010,400
20	Total	€25,028,300	€229,639,367

Table 1

Table 1 displays the number of participants who have had CDIFFCNP withheld along with a comparison of Capacity Payments (CCP) for 2020/2021. The column "CDIFFCNP as a % of CCP" contains groupings of percentages based on the volume of CDIFFCNP compared to the total CCP

[1] Settlement Workaround
For the periods of high prices in Sept 2021, the stop loss limits which are applied for CDIFFCNP were reduced to zero resulting in final CDIFFCNP being calculated as zero for all units. The stop loss limits are applied at the end of the calculation of CDIFFCNP resulting in the withheld CDIFFCNP charge being calculated in the settlement component CDIFFCNP1 which participants can find on their settlement report (Rept_044).

received for 2020/2021. For example, eight participants were due to be charged between 25%-30% of their yearly CCP in the withheld CDIFFCNP.

CDIFFCNP equivalent to Settlement Document Values	Number of Participants	Average Value of Total Settlement Documents	Average Withheld CDIFFCNP Charge	Average per Participant
0 to 5 times	9	€729,664	€588,325	0.8
5 to 10 times	3	€723,067	€4,553,422	6.3
10 times or above	8	€45,334	€759,138	16.7

Table 2

Table 2 displays the withheld CDIFFCNP charge compared to the previous five Settlement Document values. Eight participants had a withheld CDIFFCNP charge that was greater than 10 times their average Settlement Document value. This group's average Settlement Document value was €45,334, whilst their average withheld CDIFFCNP charge was €759,138 resulting in an average swing of 16.7 times their usual Settlement Document value.

Figure 5 illustrates that the non-performance capacity charges arising from just three days in September 2021 were 250% greater than those that had occurred in the first three years of market operation up until that point.

Taking all three measures of the materiality of these charges as illustrated in Tables 1, 2 and Figure 5 into account, it is SEMOs assessment that the application of these charges would have a detrimental effect on the overall operation of the market.

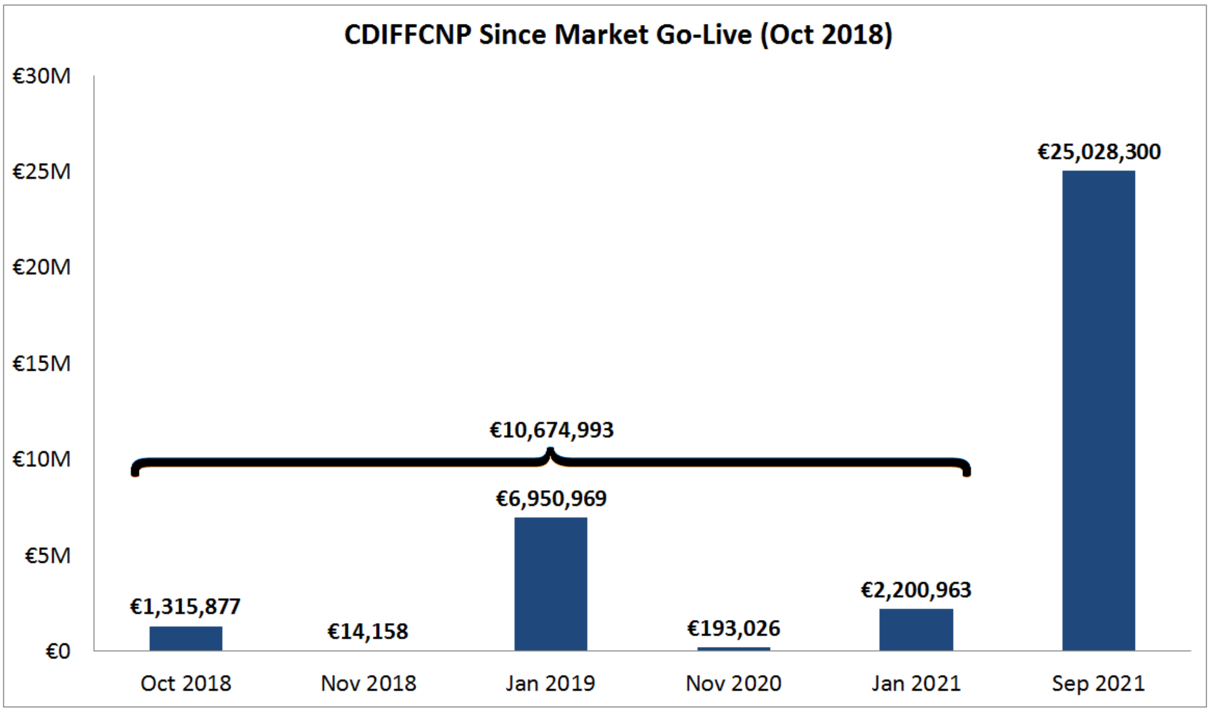

Figure 5: CDIFFCNP Since Market Go-Live (Oct 2018)

There would have also been a substantial increase in collateral requirements for impacted market participants if the withheld charges were issued with the overall required collateral increasing immediately by approximately €25 million due to withheld CDIFFCNP charges. For the majority of participants affected, they would have had to substantially increase their posted collateral to avoid defaults.

Modifications history

In January 2021 a cluster of high price events focussed the industry attentions on the implementation of sections of Appendix N of the T&SC triggered by those unique scenarios which were observed on a larger scale for the first time since I-SEM go-live. Modifications were raised by Participants on whether the intent of the High-Level Design had been achieved correctly in all cases or if the implementation brought some unintended consequences that had not been foreseen until exposed by those first price events.

At the Balancing Market Modification Committee Meeting 103 in February 2021, three Modifications to the T&SC were submitted in order to change future outcomes in areas where the proposers felt the Code objectives could be better served, should similar scenarios re-occur. These Modifications aimed at exploring the Flagging and Tagging of Units where the incentives and/or disincentives incurred were perceived as not having the intended effect, or where prices were driven by actions which the proposer viewed as non-energy such that they should be SO flagged accordingly.
The discussion on these three Modifications continued over a number of meetings and working groups, culminating with the SEMC decision to approve Mod_02_21 V2 'Setting a flag for Interconnector Actions' on August 12th 2021. The Modification aimed at flagging out of the price calculation all Interconnector Trades, in recognition that they are most commonly used in case of system security which qualify them as non-energy and therefore should be excluded from price formation.

The Modification required changes to the market system that could only be included in the next available scheduled IT release in spring 2022, therefore leaving exposed the winter season which had been forecasted to see an increase in the number of such scenarios.
In September 2021 a second cluster of high price events occurred, highlighting the risks carried by Generators if the changes were not applied in advance of the winter season.
Given the unprecedented level of overall financial impact of the Non-Performance Difference Charges (CDIFFCNP) driven by those price events, SEMO prudently took the decision to put on hold this set of charges. Non-Performance Difference Charges were not to be invoiced until further clarifications were received on the application of the decision on Mod_02_21.

In the meantime, negotiations with the vendor brought forward the release of the system changes to Nov 2021. However, uncertainty remained over the treatment of the charges on hold and how to deal with new cases should they happen in the period prior to system implementation. Two urgent Modifications were then raised by the Regulatory Authorities (RAs) between September and October 2021 to deal with both issues:

- Mod_16_21 was submitted to allow a workaround to be applied that would mimic the impact of Mod_02_21 by using the Ex-Ante Back Up Price in all events where Interconnector Trades had a price greater than the Strike Price; and

- Mod_18_21 to provide certainty around the treatment of Non Performance Difference Charges (CDIFFCNP) put on hold by SEMO; the Modification targets the period affected by the charges in question and allows the Market Operator to apply to the Regulatory Authorities for a derogation to include these charges in the invoice for the relevant Billing Periods under specific circumstances.

In the discussion for Mod_18_21, a point was made by a DSU representative that the decision could equally apply to the Demand Side Unit Energy Adjustment Payment or Charge (CEADSU) introduced with Mod_17_19 and not yet beinginvoiced due to a defect in the system, whose fix is going to be delivered in Release H at the beginning of November 2021.

SEMO has since looked at the issue and found some ambiguity in relation to the relevance of Mod_02_21 to this variable. We therefore would welcome the opportunity to engage further with the RAs to consider whether it is appropriate to seek such a derogation on this matter, noting that the provision in the TSC for seeking such a derogation expires on 1 Jan 2022..

Impact on Market Funds

The Capacity Difference Socialisation Fund is a mechanism in SEM that relates to the Capacity Market. The revenue to fund Awarded Capacity is recovered from Suppliers, through a capacity charge. In return, the Generators that qualified for the awarded capacity are obliged to provide a hedge to Suppliers against high energy prices. The purpose of building up a Socialisation Fund through a tariff arrangement is to help ensure that Suppliers are hedged against high price events where there is a shortfall in Difference Charges received from Generators to meet Difference Payments due to Suppliers.

The impact to the socialisation fund, of the high price events in early September 2021, in the event that the non-performance difference charges were charged to the participants, would have increased the fund by c. €25.0m.

In the tariff years 2018/2019 and 2019/2020, a multiplier was set to calculate the Difference Payment Socialisation Charge to build up a socialisation fund of €15.0m, for two years, in the period from I-SEM Go-Live (30 September 2018) to the end of the tariff year September 2020.

During the 2020/21 tariff setting process it was forecast that the fund had reached €14.5m and therefore, in tariff year 2020/21, a further €0.5m was required. As set out in SEM-20-057, a multiplier of 0.1% was approved for this. During the 2021/22 tariff setting process the forecast of the fund at September 2021 was c. €24.2m. The increase in the fund above €15.0m was mainly due to termination charges received and higher difference charges received than difference paid out. It was therefore decided to set the multiplier to nil for the tariff year 2021/22 (as per SEM-21-063).

The actual September 2021 position of the socialisation fund is c. €19.4m. This is after a “hole in the hedge” of c. €6.4m was paid out for difference payments over difference charges in relation to high price events in early September 2021. This excludes the paused non-performance difference charges. Had the c. €6.4m “hole in the hedge” not occurred the socialisation fund would be at c. €25.8m at September 2021 (not including the c. €25.0m of non-performance difference charges

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which were paused. Had the non-performance difference charges been included the socialisation fund at the end of September 2021 would be at c. €44.4m). Given the socialisation fund at September 2021 is at c. €19.4m, which remains well above the expected fund set at the beginning of the market of c. €15m, the fund is deemed to remain sufficient and there is no need to re-establish a tariff multiplier for the 2021/22 tariff year.

Conclusion

SEMO is applying for a derogation, as allowed under Section G.1.2.3 of the Trading and Settlement Code, with respect to the invoicing of all CDIFFCNP charges between August 12 and September 29, 2021. This derogation request has demonstrated that the circumstances, as set out in Section G.1.2.3 of the code, apply, namely that these non-performance charges relate to the period between 12 Aug and 29 Sept 2021, would not have occurred if Mod_02_21 had been effective in the market systems and may/would be of sufficient materiality to have a detrimental impact on the overall market. In addition, following analysis of the impact of such a derogation on the socialisation fund, SEMO notes that the fund would remain well above the target level if these charges were not invoiced.

Yours sincerely,

Rodney Doyle
Chief Operations Officer

On behalf of EirGrid Plc. and SONI Ltd.
in their respective capacities as licenced Market Operators

Cc: Leigh Greer, Manager, Wholesale Electricity Markets, Utility Regulator
Grainne Black, Manager, Wholesale Electricity Markets, Commission for Regulation of Utilities
Aidan Skelly, Chief Financial Officer, EirGrid plc.
Claire Kane, Head of Settlement
Michael Kelly, Director of Market Operations, SEMO
Deirdre Corbett, Group Regulation, EirGrid plc.