Harmonised Other System Charges Recommendations Paper

Tariff Year

01st October 2024 to 30th September 2025

05th July 2024

EirGrid SONI

Contents

Revision History						
Revision	Date	Description	Originator	Reviewer	Checker	Approver
R0						
R1						
R2						

ABBREVIATIONS

BESS	Battery Energy Storage Systems
CPI	Consumer Price Index
DQ	Dispatch Quantity
DS3	Delivering a Secure Sustainable System
DSU	Demand Side Unit
EDIL	Electronic Dispatch Instruction Logger
GPI	Generator Performance Incentive
HICP	Harmonised Index of Consumer Prices
IDS	Individual Demand Site
LDES	Long Duration Energy Storge
OBR	Office of Budget Responsibility
OSC	Other System Charges
QB1	Quarterly Bulletin Q1
QFPN	Final Physical Notification Quantity
RAs	Regulatory Authorities
RPI	Retail Prices Index
RTD	Real Time Dispatch
SND	Short Notice Declaration
SOs	System Operators
SYNC	Synchronise
TOD	Technical Offer Data
TSOs	Transmission System Operators
UK	United Kingdom

1. Executive Summary

EirGrid and SONI (the TSOs) published a consultation paper on 10th May 2024 concerning the Harmonised Other System Charges for the upcoming tariff period, 1st October 2024 to 30th September 2025. Comments on the consultation paper were received from seven (7) respondents. Having reviewed the responses, in this paper the TSOs propose a number of recommendations to the Regulatory Authorities (the RAs) for their consideration and approval.

Proposed arrangements for tariff year 2024/2025

1. Retain the OSC rates approved for the 2023/2024 tariff year, only adjusting for inflation at the forecast rate 1.80625% for the tariff year 2024/2025 for the following:
    - Trip Charges;
    - Short Notice Declarations (SND) Charge Rates for Generators and DSUs;
    - Minimum Generation;
    - Governor Droop;
    - Primary Operating Reserve;
    - Secondary Operating Reserve;
    - Tertiary Operating Reserve 1;
    - Tertiary Operating Reserve 2;
    - Reactive Power;
    - Secondary Fuel Availability;
2. Lower Demand Side Unit (DSU) Short Notice Declarations (SND) Threshold;
3. Introduce New Battery Short Notice Declarations (SND);
4. Remove the routine reporting of DSU Availability Comparison but retain monitoring and other elements of the performance monitoring process;
5. If/when directed by RAs introduce New DSU Generator Performance Incentive (GPI).

No further changes are recommended for this tariff period.

2. Introduction

The TSOs consult on an annual basis regarding proposed changes to Other System Charges and associated rates. The purpose of this paper is to make recommendations for approval to the RAs in Ireland and Northern Ireland. They are based on a consideration of the responses received by the TSOs to this year's Harmonised Other System Charges Consultation paper for the tariff year 1st October 2024 to 30th September 2025.

The TSOs will publish revised Statements of Charges and, if required, the Other System Charges Methodology Statement for the 2024-2025 tariff period reflecting the approved rates and arrangements.

Responses were received from the following parties:

Party	Abbreviation
Cement Limited and Roadstone Limited	CRH
Demand Response Association of Ireland	DRAI
Energia	Energia
ESB Generation and Trading	ESB GT
Energy Storage Ireland	ESI
Federation of Energy Response Aggregators	FERA
iPower Flexible Energy	iPower

No confidential responses were received.

Copies of the responses received have been appended to this recommendations paper, please note unit identification and email address information has been redacted .

Please refer to Appendix B for the responses in their entirety.

3. Response to Consultation

This section summarises comments received from Industry in relation to Trip, Short Notice Declaration and Generator Performance Incentive Charges. This section also contains the TSOs' response to the comments received and recommendations.

3.1. Trip Charges

The TSOs proposed to retain the trip charges, at the rate approved for tariff year 2023/24, apart from adjusting for inflation.

3.1.1 Respondents Comments and TSOs' Response

FERA noted it would be interested in seeing additional years of data and advised that it would be informative to take into consideration the addition of renewable energy sources and the reduction in the usage of conventional generation on the number of trips.

The technology fleet has changed considerably since 2010 and so have the markets, rulesets, and schedulers. TSOs would like to advise Trip Reports[1] for previous years up to 2016 are available in the library of both SONI and EirGrid website. In relation to the other suggestion, to analyse the changing generation portfolio dispatched on the system, information can also be found on the EirGrid and SONI websites[2] in the system and renewable data reports.

3.1.2 TSOs Recommendation

The TSOs recommend retaining the rate of Trip Charges, its current framework and adjusting for inflation from 2023/24 rates.

[1] https://www.eirgrid.ie/ and https://www.soni.ltd.uk/
Example: https://www.soni.ltd.uk/media/documents/Operations/Ancillary-Services/AS-OSC-Report-Sep2017.pdf
[2] Example: https://www.eirgrid.ie/grid/system-and-renewable-data-reports and https://www.soni.ltd.uk/

3.2. SND Charges

This section summaries the comments received from Industry in relation to existing Short Notice Declarations, lowering DSU threshold along with a proposed new SND for Batteries and TSOs comments.

3.2.1 Respondents Comments and TSOs' Response for DSU SND

CRH expressed challenges with the current SND charge, creating a new workload to "submit our best daily/weekly forecasts to our DSU provider" and while doing so still incurred substantial charge. iPower noted it previously stated "DSU availability should not be expected to remain static" due to their fuel source and aggregation across a number of IDS. DRAI believe "The charge proposed in this consultation will discourage accurate and timely redeclarations leading to the TSOs operating the system with a less complete and accurate picture of the resources available to it" while proposing two amendments to SND Charge. FERA believes "the reduction of the threshold to 2MW shall increase the complexity of manual declarations, and that is a direct reflection of the granularity of EDIL declarations.", while increasing workload of DSU Operators.

This is concerning to the TSOs and in breach of Grid Code requirements section SDC1.4.3.4[3] which outlines requirements for when a DSU Operator is submitting availability, that it doesn't submit levels or values (i.e., its profile) that are unobtainable. Lack of predictability of MW available to be dispatched causes last minute actions by SOs, this increases costs of actions taken by the TSOs to mitigate SNDs which the end user pays for. It's paramount to reduce these costs where possible. The SND is to incentivise good practice, producing reliable MW availability to be dispatched. Grid Code requires a DSU Operator to submit a redeclared availability profile by gate closure 2 (60mins).

DRAI advise the requirement to update availability regularly and describe 2 types of IDS that may be part of a DSU and feel there is a misunderstanding of configuration. iPower stated different technologies have limitations and "Demand Side Response is not similar to conventional power plants", while set up and connection impacts IDS availability of units. FERA is of the belief that there is a misunderstanding of "how DSUs are compiled and how Demand reduction is provided" while providing an explanation.

The TSOs' viewpoint is that technical characteristics can change and are captured under Technical Offer Data (TOD), with a variety of preapproved sets available to be selected by the DSU operator for a given trade date. From this TOD set, the SOs know and considers DSU availability time + DSU Notice Time + DSU Response Time when making commitment decisions, which captures a longer timeframe around an hour before a DSU is available to the system. For most DSUs, the TSOs assumes that the units will be able to provide the level of response declared in 1 hours' time and last for a minimum of 2 hours, if the unit's availability fluctuates within the 1-hour window before its response is seen, this cannot be planned for and the SND charge incentivises against this behaviour.

[3] https://www.soni.ltd.uk/how-the-grid-works/grid-codes/ or https://www.eirgrid.ie/grid/grid-codes-and-compliance

DRAI illustrated the rate of change of availability and provided real world examples and a table containing details of a number of DSU availability declarations for Calendar year 2023".

As long as declarations and redeclarations are in line with preapproved Technical Offer Data (TOD) sets and achievable, the TSOs don't have an issue. The SO needs confidence in availability data submitted and confidence it won't change at short notice, before or after being called upon. In relation to the real-world example, unfortunately it's unverifiable due to the lack of granularity provided in the time scale and the lack of detail on the criteria used to determine the application of SND's. When or if the DSU was dispatched as this is not relevant to the SND charge.

The Table with 20 DSU units and count of changes in availability was validated and found the following discrepancies:

- €1.6millon is incorrectly calculated, it appears to calculate 2MW*€86 rate* 9,500. The count of 9,500 appears to relate to columns from 2MW to 5MW. The methodology to calculate this charge correctly is MW reduction *SND rate * Notice Time Weight. It is worth noting that if a DSU breaches Notice, there are three Notice Time Weight criteria (see Appendix A for examples). Being slightly outside a time zone would result in a smaller charge applied, compared to zero notice time.
- The count in each cell, greatly differs from data extracted from the TSOs' systems which would be considered in most cases a lot lower. For example, the 9,500 charges stated appear to count of equal or greater than 2MW reduction. The TSOs calculated the stated 20 units in the calendar year 2023 which fell under 60mins from issue time to effective time and had just a greater than or equal to 2MW reduction was 3.6k, which represents 17% of all instructions within this timeframe.
- The range in the table is an inaccurate representation of some of these units and fails to illustrate the ones with greater than 5MW reduction that would need to be considered.

The TSOs advise to revisit the methodology paper[4]. Worked examples are included in the appendix and the TSOs can provide system data in order to rectify discrepancies.

The TSOs saw a reduction in DSU SNDs once the charge was introduced as seen in Figure 2 of the consultation paper and notes that, where available, units were dispatched 10 times in ROI and in NI for calendar year 2023. The tightest time on the system could be during a load reduction due to a more rapid reduction in renewables or a more rapid change in Interconnector flows. The TSOs accounts for natural load reduction when making security decisions and they need to be aware of DSU availabilities net of natural load reduction to make more informed decisions leading to a reduction in costs of actions taken by the TSOs to mitigate SNDs.

iPower and FERA noted a previous comment in relation to the difference in Conventional units' thresholds compared to DSUs and the concern for losing 2MW from a DSU and not 100MW due to Conventional unit after a trip.

It remains the viewpoint of the TSOs that both Conventional plants and DSUs have different technical capabilities, however accuracy and timely submission of availability declarations is a necessity for both in order for the TSOs to reduce the costs of actions taken by the TSOs to mitigate SNDs.

[4] https://cms.eirgrid.ie/sites/default/files/publications/Harmonised%20Other%20System%20Charges%20Methodology%20Statement%202023.pdf

iPower and FERA and are of the belief that the SND notification time for DSUs should be the same as batteries, i.e. reduced from 60 mins to 30 mins, with iPower providing a detailed explanation.

The TSOs has considered the difference between batteries and DSU technical parameters which has resulted in different notice times being proposed to be used.

iPower is of the opinion that the Threshold should be >4MW, a reduction of 50% is substantial, while CRH reference production schedules, Capacity Market program and clean demand flexibility and would recommend removing the SND for DSUs outside of times of dispatch by SOs or increase the threshold to 8MW. DRAI propose 2 amendments to SND Charge, 1. Apply only when a DSU unit is dispatched and 2. Don't apply SND to IDS when providing a natural reduction.
The TSOs notes these viewpoints and reasons. Awarded capacity payments are received on the basis that it is expecting the unit to be available. Lack of predictability of MW available to be dispatched causes last minute actions by SOs. This increases costs of actions taken by the TSOs to mitigate SNDs which the end user pays for. It's paramount to reduce these costs where possible. The SND is to incentivise good practice, producing reliable MW availability to be dispatched.

FERA mentioned that the data in the consultation paper doesn't represent seasonal impact or development of additional DSU units and offers a limited impression of behavioural changes from SNDs. iPower are of a similar view that the data set is too small and unexplained.

The TSOs have analysed behaviour based on information since the DSU SND charge was introduced, which has fed into this consultation, and we will continue to do so. The TSOs illustrated in the consultation paper the significant improvement since the introduction of DSU SNDs and will expand this for next year's consultation paper.

All respondents noted that EDIL functionality of not accepting non-integer values been an issue.

The TSOs are exploring changes to the EDIL system to take into consideration the limitation of DSUs being unable to submit their data to three decimal places. We would expect compliance to "Good Industry Practice", and as detailed in various sections of Grid Code, a unit should declare to the nearest whole number.

FERA stated "The TSOs have recently declined some Grid Code modifications regarding DSUs as it would have increased the workload for the TSO Control Room staff".

The TSOs viewpoint is that this is out of scope but wishes to state that no Gird Code Modification has been submitted by a DSU in over two years and while each TSO is a voting member as per process, they aren't the deciding bodies.

3.2.2 Respondents Comments and TSOs' Response for Battery SND

This section summarises the comments received from Industry in relation to new Short Notice Declarations and TSOs' comments.

Energia and ESI state that they "do not agree with the proposal to introduce SND charges for BESS units" which have DS3 contracts, indicating that they provide system services and currently are "almost solely reliant on this revenue". Whereas Generators are fully incentivised to be available. Energia also stated Generators are incentivised to be available due to Market exposure. ESB GT have concerns about being called upon by TSOs actions and then declare unavailable, potentially incurring a SND which they believe is incorrect "as the battery is still technically available (i.e., it can charge) and therefore such a state of charge position".

The TSOs' viewpoint is that current market mechanisms do not cover all costs associated with SNDs, specifically in relation to short notice changes in availability which creates additional costs.

The Grid Code requirements in section SDC1.4.1.1[5] details availability notice "by not later than Gate Closure 1 each day". Providing updated availability submissions, no later than Gate Closure 2 will ensure that the real time dispatch schedulers have accurate data to avoid loss of MW from the grid at short notice. However, taking into consideration technology type technical parameters and fast acting response, a 30min notice period for downward declarations is appropriate for batteries, as stated in the consultation paper. From analysis, batteries were not redeclaring with significant notice. Therefore, an incentive was derived for batteries to redeclare with at least 30 minutes notice to avoid shortfalls on the system. The notice time weight is taken into consideration, see appendix A of worked example to aid understanding of concept.

The SND charge for Batteries is only triggered in the event a Battery submits:

1. Downward availability declaration within a 30min window that is ≥ 2MW threshold
   Or

2. Multiple SNDs within a 30min window that are ≥ 2MW threshold

The purpose of the SND charge is to incentivise behaviour that enhances system security and reduce the costs of actions taken by the TSOs to mitigate SNDs. In the event of a unit making a downward declaration of its availability at short notice, a Short Notice Declaration (SND) Charge is levied on the service provider depending on the amount of notice given and the quantity of downward declaration (i.e., €/MW charge).

Battery needs to update ACTA that are obtainable, the only time it should be unobtainable for a battery to provide MW to the system is when it has a zero-percentage state of charge. If a battery is in charging or not running at all and has a state of charge it should be declaring available to the MW that can be obtainable by the battery.

[5] https://www.soni.ltd.uk/media/documents/SONI-Grid-Code-June-2023.pdf and https://www.eirgridgroup.com/site-files/library/EirGrid/GridCode.pdf

Energia and ESI believe that when unavoidable technical issues occur, it incurs loss of market revenue and an additional SND charge is inappropriate. While ESB GT believe that the 2MW threshold is challenging and should be at 5MW as "batteries are sectionalised in 5MW blocks and will typically trip in that size of sub-unit if there is a fault ".

A Trip or SND can occur as a result of technical issues; the TSOs are of the opinion that regardless of the technical background to a SND/Trip, the monetary outcome should be treated on a 'causer-pays' basis, and the end-consumer should not have to bear this cost. The TSOs have previously communicated that current market mechanisms do not cover all costs associated with SNDs and trips, specifically the creation of the Imperfections Component, in relation to short notice changes in availability. The market design does not take account of the causer of these payments, but rather ensures that the TSOs are accountable for their actions, regardless of the root-cause, which in this case is outside of their control.

Energia and ESI raised concern about the rate being doubled for units that don't have a QFPN "due to system limitations which prevent batteries from being fairly included in scheduling and dispatch" due to number of cycles per day.

The TSOs believe, in the interest of fairness, that the different rate should equally apply to all different technology types that receive SND Charges. The TSOs can confirm some batteries do obtain a QFPN and with scheduling and dispatch processes do consider all types of units in accordance with merit orders. QFPN should be obtained in accordance with the technology characteristics and some technology types can't run for entire day which is the limitation. The logic for having a lower rate for units that has QFPN is that they will also receive penalties in the Balancing Market for reducing their availability which is not the case for units that don't have a QFPN.

ESB GT believe all storage units should include Pump storage and Long Duration Energy Storage (LDES). The TSOs had conducted a review of Pump Storage Units and continuous monitoring occurs. These units declare the different types of availability days in advance and rarely submit downward redeclarations. In Oct 2023 EirGrid and SONI consulted with industry about "A Call for Evidence on the Market Procurement Options for Long Duration Energy Storage (LDES) [6]" as with all new technology types, this will be considered for OSC when introduced into Grid Code and once an embedded technology.

3.2.3 TSOs' Recommendation

1. Retaining the rate of existing rate of SND Charges for conventional and DSU units and adjusting for inflation from 2023/24 rates;
2. Reduce the DSU Threshold from 4MW to 2MW; and
3. Introduction of a new SND Charge for Batteries with a Notice time of 30mins and Threshold of 2MW.

[6] A Call for Evidence on the Market Procurement Options for Long Duration Energy Storage (LDES) | EirGrid Consultation Portal and https://www.soni.ltd.uk/media/documents/LDES-Call-for-Evidence-SONI.pdf

3.3. Generator Performance Incentive Charge

No Respondents provided comments on this section.

The TSOs recommend:

1. Retaining the existing rate of GPI Charges and adjusting for inflation.
2. The TSOs will continue with monthly DSU GPI Performance Monitoring process and report quarterly to the RAs.
3. If directed by the RAs, the TSOs will introduce a new DSU GPI.

3.4. Security of Supply

This section summarises the comments received from Industry in relation to quarterly reports highlighting a DSU declared availability is less than a unit's Registered Capacity (or DSU MW Capacity) and TSOs' response.

3.4.1 Respondents Comments and TSOs' Response

iPower would like these reports to be continued to be issued to Participants "In the interests of performance improvement, learning and development, and transparency" and ESB GT request additional clarification for the TSOs proposal to stop reporting, what internal review would continue, and indicated that details of same should have been included in Consultation paper. FERA had a similar comment: "which part of this process change shall the TSOs benefit from, and why not share such workload with those being monitored?"

The TSOs have mentioned in the previous year's paper that the purpose of this report was to engage with Participants and decrease deviation of availability and no major improvements. The last time a Participant responded to email was Aug 2023 requiring explanation of graphs and before that in July 2022 querying data and with overall DSU availability decreasing, 7.6% from March 2023 compared to March 2024 which has shown these reports have not created any performance improvements. The TSOs have published these monthly availability reports on the EirGrid and SONI websites[7] since 2022 outlining Unit by Unit average monthly availability for Conventional, Batteries and Demand Side Units and yearly rolling availability. While on the SEMO website,[8] users can access forecast availability data and Derated Awarded Capacity Quantity.

3.4.2 TSOs' Recommendation

The TSOs are recommending ceasing this Quarterly reporting for 2024/25 as data is available by other mechanisms.

3.5. Proposed Rates

No Respondents provided comments on this section.

The TSOs are recommending increase last year's rates by blended Inflation rate 1.80625%.

[7] https://www.soni.ltd.uk/ and https://www.eirgridgroup.com/
[8] https://www.sem-o.com

4. Recommended Rates

With respect to the applicable inflation rate, the TSOs are aligning their methodology to that approved by the RAs with respect to a blended rate.

The TSOs, therefore, propose the following methodology to be applied:

- 75% from Central Bank HICP forecast using the latest available quarterly report adjusted for the relevant tariff timeframe;
- 25% from Office of Budgetary Responsibility CPI forecast using the latest available quarterly report adjusted for the relevant tariff timeframe.

According to the latest Office of Budgetary Responsibility report[9] (Mar 2024), the current CPI year on year inflation forecasts in the UK for the 2024/25 tariff year equates to c.+1.68% while the latest Central Bank report[10] (QB1 2024) forecasts HICP in Ireland for the same period at c.+1.85%.

Source		2024	2025	Tariff Year Methodology	2024/2025 Tariff Year	Blended Rate Methodology	Blended rate
Economic and fiscal outlook - March 2024 (obr.uk)	CPI	2.20%	1.50%	(0.022*25% + 0.015*75%)	1.68%	1.68*25%	0.41875
Quarterly Bulletin Q1 2024 (centralbank.ie)	HICP	2.00%	1.80%	(0.02*25% + 0.018*75%)	1.85%	1.85*75%	1.3875
						Blended Rate	**1.80625**

Table 1 Proposed Inflation Rate Increase

On this basis and recognising the relative balance between Ireland and Northern Ireland, the forecast blended rate for the forthcoming 2024/25 period is 1.80625%, as shown in Table 1.

[9] https://obr.uk/efo/economic-and-fiscal-outlook-march-2024/
[10] https://www.centralbank.ie/docs/default-source/publications/quarterly-bulletins/qb-archive/2024/quarterly-bulletin-q1-2024.pdf?sfvrsn=5777631a_8

4.1 Trip Charges

The proposed Trip Constants for the 2024/25 tariff year are shown in Table 2, which bears no proposed changes. Tables 3 & 4 have been adjusted by the blended rate of inflation, as defined above.

	2020-2021	2021-2022	2022-2023	2023-2024	**2024-2025**
Direct Trip Rate of MW Loss	15 MW/s	15 MW/s	15 MW/s	15 MW/s	**15 MW/s**
Fast Wind Down Rate of MW Loss	3 MW/s	3 MW/s	3 MW/s	3 MW/s	**3 MW/s**
Slow Wind Down Rate of MW Loss	1 MW/s	1 MW/s	1 MW/s	1 MW/s	**1 MW/s**
Direct Trip Constant	0.01	0.01	0.01	0.01	**0.01**
Fast Wind Down Constant	0.009	0.009	0.009	0.009	**0.009**
Slow Wind Down Constant	0.008	0.008	0.008	0.008	**0.008**
Trip MW Loss Threshold	100 MW	100 MW	100 MW	100 MW	**100 MW**

Table 2 Proposed Trip Constants

Based on the reasoning in Section 3.1, Table 5.2 contains the Trip Charge proposals for units with a QFPN, while Table 5.3 contains the Trip Charge proposals for units without a QFPN.

Charge for Tariff Year	*2020-2021*	*2021-2022*	*2022-2023*	*2023-2024*	***2024-2025***
Direct Trip Charge Rate	€2,227	€2,249	€2,339	€2,416	€2,460
Fast Wind Down Charge Rate	€1,670	*€1,687*	*€1,756*	€1,813	€1,846
Slow Wind Down Charge Rate	€1,114	*€1,125*	*€1,170*	€1,209	€1,231

Table 3 Proposed Trip Rates for Units With a QFPN

Charge for Tariff Year	*2020-2021*	*2021-2022*	*2022-2023*	*2023-2024*	***2024-2025***
Direct Trip Charge Rate	€4,454	€4,498	€4,678	€4,832	€4,919
Fast Wind Down Charge Rate	€3,340	€3,373	€3,508	€3,624	€3,689
Slow Wind Down Charge Rate	€2,228	€2,250	€2,340	€2,417	€2,461

Table 4 Proposed Trip Rates For Units Without a QFPN

4.2 Short Notice Declarations

A SND can have the same impact on scheduling and dispatch as that of trips. These short notice outages can have a significant effect on the ability of the TSOs to schedule and dispatch in an economic manner and to manage Transmission Constraint Groups which are essential to the secure operation of the transmission system. There are no proposed changes for Generator unit's constants, while DSU Threshold is lowered, and Battery constants have been added (see Table 5). The DSU SND Threshold is set to 4MW and will lower to 2MW.The Battery SND Threshold is set to 2MW, and Battery SND Time Zero to 30mins. Table 5 shows the proposed SND constants for 2024-25. Table 6 & 7 rates have increased by the rate of inflation from the previous year.

SND Constants for Tariff Year	2020-2021	2021-2022	2022-23	2023-2024	**2024-2025**
SND Time Minimum	5 min	5 min	5 min	5 min	5 min
SND Time Medium	20 min	20 min	20 min	20 min	20 min
SND Time Zero	480 min	480 min	720 min	720 min	720 min
DSU SND Time Zero	N/A	N/A	N/A	60 min	60 min
Battery SND Time Zero	N/A	N/A	N/A	N/A	**30 min**
SND Powering Factor (Notice time weighting curve)	-0.3	-0.3	-0.3	-0.3	-0.3
SND Threshold	15 MW	15 MW	15 MW	15 MW	15 MW
DSU and Battery SND Threshold	N/A	N/A	N/A	4 MW	**2 MW**
Time Window for Chargeable SNDs	60 min	60 min	60 min	60 min	60 min

Table 5 Proposed SND Constants

Table 6 shows the proposed SND Charge Rate for Generating Units with a QFPN.

Tariff Year	*2020-2021*	*2021-2022*	*2022-2023*	*2023-2024*	***2024-2025***
SND Charge Rate	€39 / MW	€39 / MW	€41 / MW	€42 / MW	**€43 / MW**

Table 6 Proposed SND Charge Rate for units with a QFPN

Table 7 shows the proposed SND Charge Rate for Generating Units without a QFPN.

Tariff Year	*2020-2021*	*2021-2022*	*2022-2023*	*2022-2023*	***2024-2025***
SND Charge Rate	€77 / MW	€78 / MW	€81 / MW	€84 / MW	**€86 / MW**

Table 7 Proposed SND Charge Rates for units without a QFPN

4.3 GPI Charges

There are no proposed changes for Generator GPI constant, while DSU constant remains (see Table 8) and with the direction from RAs may be implemented at a future date. The DSU MW Shortfall tolerance limit is at 70%, so anytime SCADA is under this threshold from its DQ will receive a charge. Table 9 lists Generator rates that have increased by the rate of inflation for the 2024/2025 tariff year.

The Event Based GPIs will remain at zero (i.e., Loading Rate, De-Loading Rate, Early Synchronisation, Late Synchronisation, Max Starts in 24-hour period and Minimum On time).

The proposed GPI Constants and GPI Declaration Based Charges for the 2024/2025 tariff year are outlined in Table 8 and Table 9, respectively.

Current Year	On hold until otherwise advised	Will not apply for this year

GPI Constants for Tariff Year	*2020-2021*	*2021-2022*	*2022-2023*	*2023-2024*	***2024-2025***
Secondary Fuel Availability Factor	0.9	0.9	0.9	0.9	**0.9**
Late Declaration Notice Time	480 min	480 min	480 min	480 min	**480 min**
DSU MW Shortfall Tolerance	N/A	N/A	N/A	70%	**70%**
Loading Rate Factor 1	60 min	60 min	60 min	60 min	60 min
Loading Rate Factor 2	24	24	24	24	24
Loading Rate Tolerance	110%	110%	110%	110%	110%
De-Loading Rate Factor 1	60 min	60 min	60 min	60 min	60 min
De-Loading Rate Factor 2	24	24	24	24	24
De-Loading Rate Tolerance	110%	110%	110%	110%	110%
Early Synchronous Tolerance	15 min	15 min	15 min	15 min	15 min
Early Synchronous Factor	60 min	60 min	60 min	60 min	60 min
Late Synchronous Tolerance	5 min	5 min	5 min	5 min	5 min
Late Synchronous Factor	55 min	55 min	55 min	55 min	55 min

Table 8 Proposed GPI Constants

Charge for Tariff Year	*2020-2021*	*2021-2022*	*2022-2023*	*2023-2024*	***2024-2025***
Declaration Based Rates	€ / MWh	€ / MWh	€ / MWh	€ / MWh	**€ / MWh**
Minimum Generation	1.33	1.34	1.39	1.44	**€1.47**
Reactive Power Leading	0.32	0.32	0.33	0.34	**€0.35**
Reactive Power Lagging	0.32	0.32	0.33	0.34	**€0.35**
Primary Operating Reserve	0.54	0.55	0.57	0.59	**€0.60**
Secondary Operating Reserve	0.13	0.13	0.14	0.15	**€0.15**
Tertiary Operating Reserve 1	0.13	0.13	0.14	0.15	**€0.15**
Tertiary Operating Reserve 2	0.13	0.13	0.14	0.15	**€0.15**
Secondary Fuel Availability	0.03	0.03	0.05	0.05	**€0.05**
Governor Droop	0.32	0.32	0.33	0.34	**€0.35**
DSU Metering Shortfall	N/A	N/A	N/A	100	**€101.81**

Table 9 Proposed GPI Declaration Based Charge Rates

5. Appendix A DSU SND Example and Dispatch details

Example of DSU availability and SND:

- DSU Operator issues real-time availability data through EDIL system that contains its issue time for effective time, along with declared MW.
- The above data feeds into Settlement and calculate SND Notice Time for instruction that's within the time zone and in breach of threshold limit.
- Table 10 illustrates when a charge would or wouldn't apply and how much it would be in accordance with Methodology[11] .

Issued Time	Effective Time	Availability submitted (MW)	SND Notice Time (HH:MM:SS)	Comment
10/10/2023 00:00:00	10/10/2023 02:00:00	2	02:00:00	
10/10/2023 01:45:00	10/10/2023 02:30:00	12	00:45:00	No SND as increasing MW
10/10/2023 10:02:03	10/10/2023 10:04:01	2	00:01:58	SND Charge = €840 using rate €84, MW Reduction =10 and *Notice Time Weight = 1
10/10/2023 11:30:01	10/10/2023 12:35:01	10	01:05:00	No SND as increasing MW
10/10/2023 14:00:01	10/10/2023 14:22:58	1	00:22:57	SND Charge = €481.03 Using SND rate = €84, MW Reduction = 9 and ***Notice Time Weight = 0.63628
10/10/2023 15:30:01	10/10/2023 16:35:01	10	01:05:00	No SND as increasing
10/10/2023 19:17:29	10/10/2023 20:00:01	1	00:52:00	SND Charge = €74.89 Using SND rate = €84, MW Reduction = 9 and ***Notice Time Weight = 0.09906

Table 10 Example using DSU availability if/when SND applies and cost

* Notice Time < SND Time Minimum

** For Notice Time >= SND Time Minimum but < SND Time Medium

*** For Notice Time >= SND Time Medium < SND Time Zero then

[11] https://www.soni.ltd.uk/media/documents/OSC-Methodology-Statement-2023.pdf

DSU Technical Parameters:

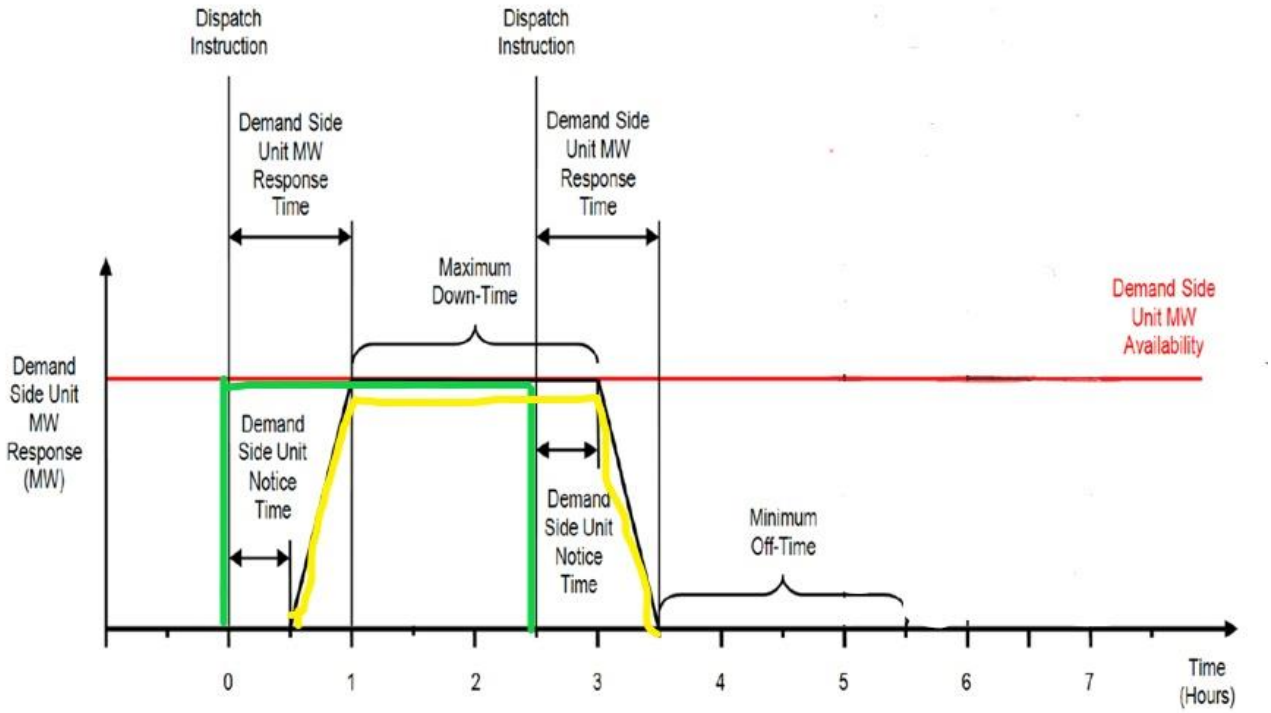


Table 11 DSU profile with Availability, Dispatch Instruction and response displayed

DSU Dispatch Instruction and profile:

- The DSU in the example above is available for 10MW (red line) from 00:00 to 07:00
- The SO is constantly monitoring the system and either the RTD or additional SO action will consider the dispatch of the DSU as the appropriate action to maintain system frequency.
- All EDIL declarations are considered along with technical parameters (when will the unit get to the desired output), in the above case the SO issue a Dispatch Instruction to SYNC to 10MW (Green line) @00:00.
- The DSU accepts the Dispatch Instruction, it has a 30min notice period, followed by a 30min ramp time, therefore it's an hour before it can reach the desired output (yellow line).

  Therefore, having a SND Time zone of 60mins is reasonable.

6. Appendix B Responses

6.1 CRH Response:

Tariffs

From: [redacted]
Sent: Sunday 23 June 2024 13:33
To: Tariffs
Subject: Response to Harmonised Other System Charges Consultation Paper, Tariff Year 01/oct/2024-30/sep/2025

As a manufacturing site in Ireland, currently participating in Capacity Market, I wish to explain the difficulties presented by the introduction of SND (Short Notice Declaration) charges (GPI) in October 2023, and to request that the ***proposal to decrease the SND threshold to 2MW*** is not included in recommendations to the Regulatory Authorities (RAs) and is not implemented.

While we Irish Cement plan our production schedules ahead of time, we do not plan it on an hour-by-hour basis. Even with a production schedule looking ahead for just 12 hours, it is not possible to devote the time to calculating site load at every hour and assessing the assets (plant) which are metered and earmarked for Capacity Market dispatch (demand reduction). This level of planning and assessment is outside the normal Production and Operations Scheduling process. Within the normal working day, Production and Operations must take precedence over the Forecasts Schedule which has been submitted to our DSU provider. Where Production and site load varies from the Forecast submitted, it is not possible to devote staff time to contacting the DSU provider to make hourly updates. This task and this charge (SND GPI) is quite at variance with the requirements which were in place when our site joined the Capacity Market program (2019).

On joining the Capacity Market program, it was explained that participating in this program would not interfere with the normal production cycle, with the primary obligation to reduce load (specific metered assets onsite) on receiving an instruction from the DSU provider. In September 2023, it was explained that a new Charge had been introduced and that there would be a requirement for a detailed daily/weekly Forecasts commencing 01/oct/2024. Although this created new workload, we complied and submitted our best daily/weekly forecasts to our DSU provider. Following assessment of our Forecasts, it was found that the sites had not aligned with the Forecasts on several occasions, and that substantial charges had been incurred. As an interim measure to reduce exposure to SND Charges, it was decided to reduce the Availability of the site to the Capacity Market program. By our calculation, there was very little revenue to be earned if a large portion was to be directed towards SND Charges , while the site would be exposed to any number of Capacity Market Dispatch instructions. After negotiation with our DSU provider, some measures were put in place so that the greater part of the site load could once again be offered into the Capacity market program. The introduction of SND charges in October 2023 has increased workload and has decreased revenue to this site. It remains to be seen if it will be cost efficient to remain with the Capacity Market program in the longer term. With the introduction of more stringent requirements for Forecasting, it may become impossible to participate even at reduced capacity MW (to achieve the degree of accuracy in forecasting which might be required, with the regularity and frequency of forecasting). It would seem that Demand Sites are being discouraged from participation in the Capacity Market program. This site offers **clean** Demand Response, by Curtailment, and not by falling over to BUG (back-up Generators). This type of Zero-Carbon Demand Flexibility is an important contributor to the target of 15-20% from Demand Flexibility as stated in the National Energy Demand Strategy and CAP23.

1

A Consultation which proposes to penalise LEU (large energy user) delivering '*clean*' demand flexibility is contrary to all current publications and targets which require more of this resource/flexibility asset type. This manufacturing site has always responded fully to Dispatch Instructions from our DSU provider and supports any necessary charges (GPI) to incentivise the correct behaviour from DSU providers following Dispatch Instructions from NCC (national control centre).

This Demand Site makes the following recommendation:

- Remove SND charges (GPI) on Demand Side Units where EDIL declarations reflect the load reduction on Demand Sites as part of normal production schedules, and outside of times of Dispatch by NCC.

or

- Increase the Threshold from 4MW to 8MW.

Kind Regards

Conor Walshe
UK & Ireland Fuel & Energy Category Manager
[redacted]

CRH Ireland
Building 2, Fortunestown Lane,
Belgard, Dublin 24.
Ireland.
D24 PKK2

6.2 DRAI Response:

Via email to: tariffs@eirgrid.com and tariffs@soni.ltd.uk

Harmonised Other System Charges Consultation Paper

Consultation Response

Introduction

I am writing on behalf of the Demand Response Association of Ireland (DRAI), a group provides insights and policy guidance on the nature flexible energy demand customers participating in the all-island Single Electricity Market (SEM). These flexible customers create predictable, reliable, and controllable assets, which provide a valuable source of Demand Side Flexibility (DSF) that can be actively used by system operators to meet the needs of the power system.

Today, the DRAI represents approximately 700 MW of demand and embedded generation response across hundreds of industrial and commercial customer sites throughout the island of Ireland. These sites are managed by our members each of whom actively participate in the capacity, DS3, and energy markets. DRAI members are committed to shaping the future of power system flexibility through advancing DSF on the island of Ireland. As Ireland strives to achieve its renewable generation targets for 2030 and beyond, our promise as an industry-led organisation is to champion the development of innovative DSF solutions that are designed to address the system-wide requirement for flexibility.

With regards to the Harmonised Other System Charges Consultation Paper 24/25, the DRAI would like to express our deep concern regarding the commentary as shown in point 2.2.2 and the proposal to reduce the SND charge threshold from 4MW to 2MW. This commentary demonstrates a poor understanding of what is happening since the SND charges where introduced and we are disappointed that our attempts to explain this issue has not been taken on board to this point. Below we attempt to explain this point in detail and why the amendments of how these charges are issued needs to implemented immediately.

Main points

DSUs are inherently load following and so must provide redeclarations of their availability

DSUs are made up of demand sites which reduce demand when dispatched by the TSO. This means that when their load is lower, their availability to reduce that load is also lower. This puts a requirement on DSUs to provide updates or redeclarations to the TSO on their real-time availability.

Redeclarations of availability should be encouraged, not discouraged

When a DSU provides a redeclaration to the TSO this can be seen as a positive action, whereby they are providing the TSO with the most up to date picture of their availability as possible. The charge proposed in this consultation will discourage accurate and timely redeclarations leading to the TSO operating the system with a less complete and accurate picture of the resources available to it.

System Charges should be focused on discouraging behaviour that is causing problems for the system

The DRAI recognise that charges are required to discourage practices that causes challenges to system operation. We therefore propose two amendments to the proposed charge which will focus it on the bad practices which are of concern to the TSO.

- SND charges should only apply for declarations which take place during the time from when a DSU is dispatched to the time when they achieve the load reduction requested (between the issue and effective time). This would discourage units from re-declaring downwards to avoid participating in the dispatch.
- Where a DSU sends a SND due to a reduction in IDS (Individual Demand Sites) demand (as can be demonstrated using metering data) – no SND charge should apply. as demand is being reduced anyway and alleviating pressure on the grid.

Detail

DSUs are inherently load following

DSUs inherently have a load following nature, meaning that to comply with the requirements of the Grid Code (SDC1.4.3.4 - *"Each Demand Side Unit Operator shall, subject to the exceptions in SDC1.4.3.5 and SDC1.4.3.5A, use reasonable endeavours to ensure that it does not at any time declare the Demand Side Unit MW Availability and the Demand Side Unit characteristics of its Demand Side Unit at levels or values different from those that the Demand Side Unit could achieve at the relevant time.")* must update their availability to the TSO regularly.

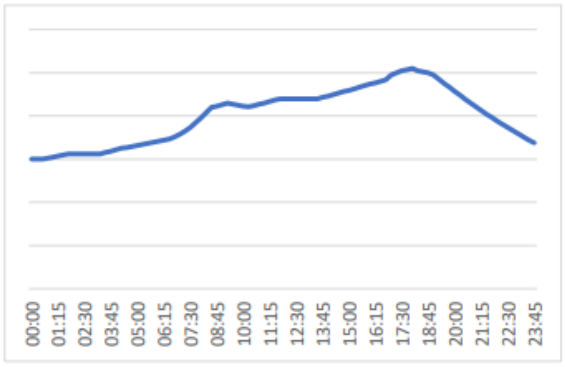
The IDSs in DSUs provide demand reduction in 2 main ways:

Demand Reduction – This is usually done using by switching off manufacturing or environmental equipment such as fridges, HVAC or production pumps. When the load is running it reports as available to be switched off and so "Available". If it switches off for reasons other than a dispatch instruction from the TSO (having completed its production requirements for example), it becomes unavailable (as it isn't drawing any load). This means that the availability of these site is effectively "Load Following". Note that if it switches off for such reasons, the grid experiences a lower load and so is more secure, not less.

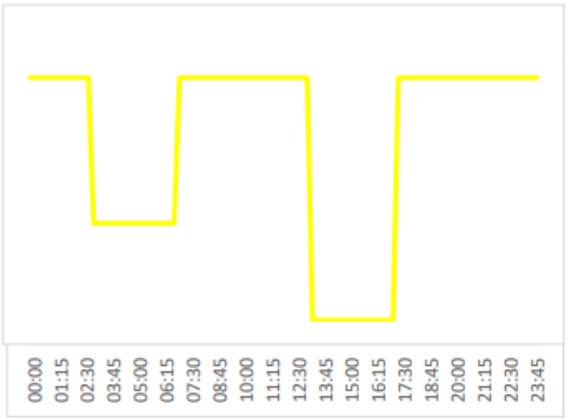
Onsite Generation – Many sites have backup generation to provide added resilience in the event of local power cuts. When required by the TSO these sites can reduce their demand on the grid by switching on these generators to provide power for their site. In the vast majority of cases however these sites are prohibited from exporting power onto the grid. This means that though the load reduction comes from a generator, it is also load following. When the sites load reduce due to less power requirement on site it reduces the demand on the system and so improves system security, but it also reduces the availability of the DSU as the limit to which the generator can operate has reduced.

Rate of change of availability

Some DSUs are made up many small sites or loads on sites, all of which have differing needs for power. This means that the change in availability of the units can be seen to be slow and gradual. In these cases the redeclarations made by the DSU can be small (1MW being the smallest possible, due to EDIL limitations).



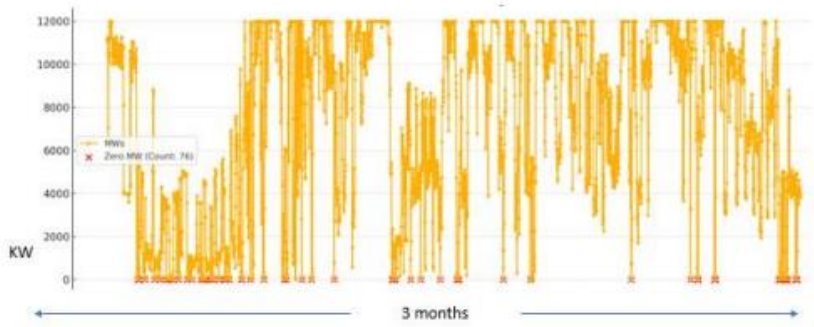
In other cases one site or load could be far larger than the others (or in some DSUs be the only site in the DSU). In this case when this load switches on/off it can load to a need for a redeclaration of availability (>1MW) each time it switches. These switching events may be predictable or they may not, depending on the load. In some cases a load which was predicted to switch on/off may be delayed (or switched more quickly) due to a change in efficiency of a process.



Finally some examples exist whereby relatively small loads can have correlated demand changes. One example would be HVAC, which reduces in many office buildings at similar times, or industrial chilling which responds to spikes in hot weather. In these cases a redeclaration would be needed for larger changes that are normal for that DSU. This can be particularly noticeable at times when demand is reducing or growing anyway as the redeclarations would need to take into account both the predicted change as well as the unpredictable.

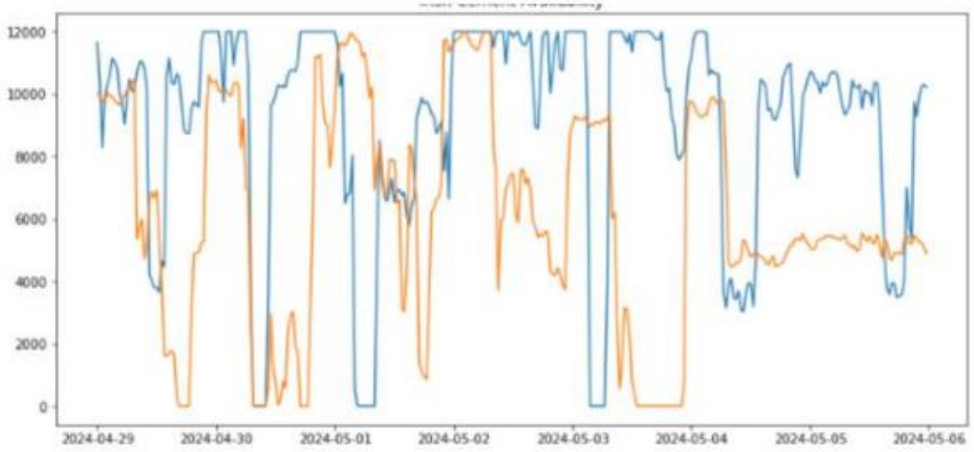
Real World Examples of the above

The graphs below show some real-world examples of DSUs with similar availability characteristics to the above.



- Some changes are predicted and so can be pre-declared - Others can not
- Redeclarations (SNDs) generally required for changes not within 1 hour of prediction
- Note if production is more efficient/less efficient than predicted – it will stop earlier/later – can't remain running into full silo
- Site would incur >200 charges in 3 month – majority of capacity payment
- When equipment is switched off early, load on the grid reduces – unlikely to effect system security

Two units availability during a week:



The table below shows the changes in availability as seen over 1 hour by largest 20 DSUs during full year 2023. In the case of the 2MW SND proposed in this paper, the number of redeclarations potentially included would be in the region of 9,500 charges, meaning a potential a potential cost on the industry of €1,600,000 per year. For the customer site most affected it would likely mean them deciding to not participate in the Capacity Market, resulting in the TSO losing valuable resources it has frequently relied on in the past few years

	1MW	2MW	3MW	4MW	5MW
[redacted]	2855	1641	881	437	219
[redacted]	2606	1416	815	485	260
[redacted]	2329	1134	590	370	252
[redacted]	980	728	452	215	38
[redacted]	914	758	573	457	419
[redacted]	842	80	10	3	2
[redacted]	826	686	559	471	422
[redacted]	803	523	234	135	86
[redacted]	682	250	7	1	0
[redacted]	663	214	44	12	7
[redacted]	662	494	353	195	134
[redacted]	644	477	284	123	53
[redacted]	638	159	2	1	0
[redacted]	591	199	28	2	2
[redacted]	395	279	182	65	12
[redacted]	361	113	44	15	3
[redacted]	350	86	26	8	2
[redacted]	300	66	17	8	2
[redacted]	250	105	59	32	17
[redacted]	155	103	74	47	17

Note that in relation to the above

- 99% of these changes are not at times of dispatch
- In many cases these changes are predicted and are represented in the forecast
- These changes are generally associated with a load switching off/reducing demand. This is unlikely to cause a risk to system security as the load has been turned off, reducing demand with it
- It is rare that they are associated with a generator becoming unavailable (backup generators are always available)
- A customer is always entitled to reduce demand – being a DSU does not oblige them to remain onload
- These changes are in the nature of demand and can't really be avoided by the customer/DSU operator

EDIL - How redeclarations are delivered

From the point of view of availability for dispatch, DSU provide the TSO with information in 3 main ways.

- Forecast - Before any declarations, DSUs provide the TSO with a forecast of their availability via the complex demand offer provided in the MPI.
- SCADA - In real time DSUs are constantly providing the TSO with a real-time signal of their availability. This has high accuracy and recency and is calculated by the DSU by summing the availability of each site in its portfolio.
- EDIL – Currently DSUs generally provide declarations of their availability on EDIL based on their current availability. It is a reflection of the SCADA signal though slower (requires human intervention) and with less accuracy (EDIL has a minimum granularity of 1MW).

Future effective timed declarations on EDIL

It is possible to provide future effective timed declarations on EDIL, informing the TSO of the future availability of the unit (mirroring the forecast rather than the SCADA). This will have increase inaccuracy however as a forecast can never be 100% correct. Furthermore, it causes problems when a DSU operator identifies an inaccuracy (due to a site switching off a load unexpectantly for example) and attempts to fix it as it is impossible to update a future redeclaration. Instead they need to request that the previous redeclaration be cancelled and so wait on a reply from the TSO before they can provide the more accurate redeclaration. If DSUs begin to do more Future effective timed declarations it will greatly increase the number of declarations while also increasing the inaccuracy of the system.

Redeclarations after a dispatch

From unilateral conversation, the DRAI understand that SNDs have been introduced to penalize DSUs declaring down after a dispatch instruction has been received. DSUs agree that redeclaring down availability following a dispatch is not desirable from the point of view of the TSO and agree that actions should be taken to eliminate this action when it is done as part of poor performance. We would highlight however that in the case of a some DSUs it can be required when the demand of the participating IDSs is naturally falling anyway. One example is where sites are going to reduce load by switching on their backup generators. If their load falls during the time from when the dispatch instruction is issued to the end of the dispatch period, the DSU may have a need to redeclare their availability. While the power generated by the unit has fallen during the period, the effect on system security is minimal as the demand of the sites on the grid has not increased. The effective difference as seen by the TSO is zero. Note that in many cases this effect can also be seen on the forecast provided by the DSU.

Proposed amendment to the Consultation

DSUs could accept current proposal if linked with both of the following 2 amendments:

- SND charges should only apply for declarations which take place during the time from when a DSU is dispatched to the time when they achieve the load reduction requested (between the issue and effective time). This would discourage units from re-declaring downwards to avoid participating in the dispatch.
- Where a DSU sends a SND due to a reduction in IDS (Individual Demand Sites) demand (as can be demonstrated using metering data) – no SND charge should apply. as demand is being reduced anyway and alleviating pressure on the grid.

Note on Size/Number of DSUs

It could be interpreted that part of the problem attempting to being solved by the proposal in this paper is to manage the number of redeclarations made by DSUs. Please note that the growth in the number of small DSUs on the system (as opposed to larger aggregated ones with less % variation) is largely down to TSO policy and is not in the interest of DSU. Examples of such policies include:

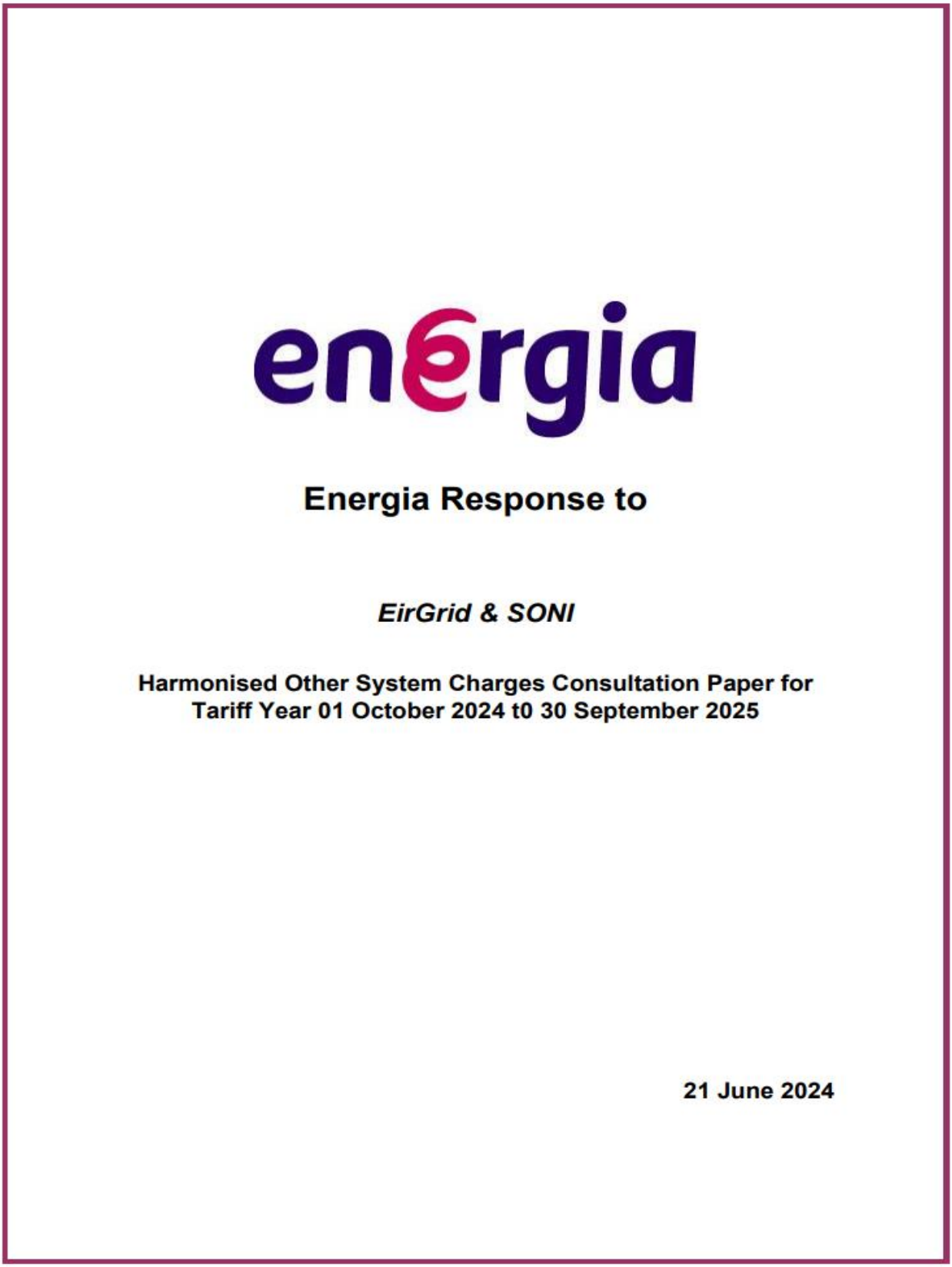
- Capacity market penalises DSUs with worse derating despite them being inherently more reliable and predictable in % terms
- Grid Code requires large sites to be split into individual DSUs
- Grid Code compliance rules are more penal on larger DSUs (% accuracy Vs MW accuracy requirement)

As ever the DRAI are available for a meeting to discuss these matters or any other of concern to the TSO.

Your sincerely,

Patrick Liddy, DRAI

6.3 Energia Response:



Energia Response to

EirGrid & SONI

Harmonised Other System Charges Consultation Paper for Tariff Year 01 October 2024 t0 30 September 2025

21 June 2024

1 Introduction

Energia welcomes the opportunity to respond to the TSO Consultation Paper titled "Harmonised Other System Charges Consultation Paper – Tariff Year 01 October 2024 to 30 September 2025" (the "Consultation Paper"). The Consultation Paper has proposed two changes in relation to the Other System Charges (OSC) which are levied on generators for the tariff year 2023/24, with the remaining OSC to remain the same.

The proposed changes are as follows:

- Lowering the DSU Threshold from 4MW to 2MW.
- Introduce SND for BESS units from 2024/25 with MW reduction of 2MW and a Notice Time of 30misn. Demand Side Units (DSU) above a SND tolerance of 5 MW.

Energia has only submitted comments on the introduction of OSC for battery units, with no comment on those OSC for which the current tariff is to be retained or for the lowering of the DSU threshold.

2 Proposal to Introduce SND Charge for BESS Units.

In principle, Energia do not agree with the proposal to introduce SND charges for BESS units. Energia has argued in previous consultations related to OSC charges, that these charges do not take a holistic view of the market in which generating units participate in. For example, generating units which have secured a reliability option under the Capacity Renumeration Mechanism are potentially exposed to RO Difference Charge payments up to one and a half times their annual capacity income should an RO event coincide with the generating unit's trip or SND. Similarly, generating units which have secured DS3 System Services contracts must be readily available to provide their contracted services to receive DS3 revenues. As it currently stands, BESS units are almost solely reliant on DS3 revenues and as such, generators are fully incentivised to be available.

These market conditions fully incentivise generating units to be constantly available aside from unavoidable technical issues which arise from time to time. Such technical issues arise despite the efforts of operators to actively prevent these. Consequently, SND charges incur penalties to units for unintentional and undesirable trips in addition to suffering the loss of market revenues. The introduction of an SND charge to batteries is inappropriate in this regard.

While we do not support the introduction of SND charges for battery units, in the event that this proposal is adopted, Energia have concerns with the proposed trip rates for units without a QFPN. The proposed rates for units without a QFPN are double that of the rates of units with a QFPN. This differentiation must be removed if SND charges are to be introduced for battery units as it overly penal on BESS units which at present are unable to have a QFPN due to system limitations which prevent batteries from being fairly included in scheduling and dispatch. Even if the market facilitated the normal trading of battery units the QFPN is always going to be for a short period e.g. 1 or 2 hours as the current fleet of BESS units are likely to only operate at 1 cycle per

day. Therefore, applying the higher penalty is unfair as this is how the BESS units are designed to work, they cannot have a QFPN throughout the day.

6.4 ESB GT Response:

Energy for generations

ESB Generation and Trading's Response to EirGrid's consultation on Harmonised Other System Charges for Tariff Year Oct-24 to Sep-25

21/06/2024

Harmonised Other System Charges Recommendations Paper

Tariff Year 01 October 2024 to 30 September 2025 | 05th July 2024

Energy for generations

Contents

Harmonised Other System Charges Recommendations Paper

Tariff Year 01 October 2024 to 30 September 2025 | 05th July 2024

Energy for generations

1. INTRODUCTION

ESB Generation and Trading (GT) welcomes the opportunity to respond to EirGrid's consultation on Harmonised Other System Charges for Tariff Year October 24 to September 25.

The consultation paper outlines the TSOs' proposals regarding the charges adjustment for inflation; a new Battery Short Notice Declarations (SND) charge; lowering the DSU threshold for Short Notice Declarations (SND) and the removal of the routine reporting of DSU Availability Comparison.

ESB GT's response is set out in two sections; the first is this introduction, the second is the response to the TSOs' proposals.

2. RESPONSE TO TSOS' PROPOSALS

2.1 New Battery Short Notice Declaration (SND) charge

The TSOs are proposing to introduce a SND Charge to Battery units to incentivise behaviour that enhances system security and reduce the costs of actions taken by the TSOs to mitigate SNDs.

Pumped hydro shares the same characteristics as batteries in terms of operating in the energy markets and balancing markets and should be treated accordingly. Therefore, if a new charge is being created it should be defined as a charge on "Storage units" rather than just battery units. It is not clear why batteries would be treated differently from other types of storage i.e., pumped storage and LDES. ESB GT believes if a SND is being created it should be applicable to pumped storage as well.

Considering the recent discussions in the Scheduling and Dispatch Project and the Future Arrangement of System Services project, and the TSOs view of responsibilities of batteries following TSO actions in the BM, there is a concern that TSOs may be of the view that batteries could be "drained" by TSO actions to a state of charge of 0MW and would have to declare unavailability, resulting in the unit being removed unfairly from the market and being more susceptible to SNDs. This is clearly not correct as the battery is still technically available (i.e., it can charge) and therefore such a state of charge position should not result in SNDs.

Moving the threshold from 4MW to 2MW is challenging for larger battery units. Such batteries are sectionalised in 5MW blocks and will typically trip in that size of sub-unit if there is a fault. ESB GT would recommend that the threshold for the SND charge is set at 5MW given that most new batteries recently connected or to be connected in the future will be at least of that size.

2.2 Removal of routine reporting of DSU Availability Comparison

The TSOs are proposing to cease externally communicating the quarterly performance monitoring reports that detail DSU Availability Comparison for MMS Forecast Availability versus EDIL Realtime Availability whilst highlighting Derated Awarded Capacity unless the unit is on scheduled outage. The TSOs have stated that this proposal is based on "considering the relative merits" but there is no further detail on what these merits are. The TSOs have also stated they will continue performance monitoring in this area but without stating what form this will take and what communication if any will be provided on this. ESB GT believes greater detail should be provided to industry in the consultations when changes are being proposed otherwise it is not clear how changes are being assessed.

6.5 ESI Response:

EirGrid & SONI

24 June 2024

Emailed to: tariffs@eirgrid.com

RE: Harmonised Other System Charges Consultation Paper for Tariff Year 01 October 2024 to 30 September 2025

Introduction:

Energy Storage Ireland (ESI) is an industry representative association comprised of members who are active in the development of energy storage in Ireland and Northern Ireland. Our aims are to promote the benefits of energy storage in meeting our future decarbonisation goals and to work with policy makers in facilitating the development of energy storage on the island of Ireland. We represent over 70 member companies from across the energy storage supply chain.

We would like to support the comments made by Energia in their response to this consultation regarding the introduction of OSC for storage units.

We do not agree with the proposal to introduce SND charges for BESS units. Units which have secured DS3 System Services contracts must be readily available to provide their contracted services to receive DS3 revenues. As it currently stands, BESS units are almost solely reliant on DS3 revenues and as such, generators are fully incentivised to be available. These market conditions fully incentivise generating units to be constantly available aside from unavoidable technical issues which arise from time to time. Such technical issues arise despite the efforts of operators to actively prevent these. Consequently, SND charges incur penalties to units for unintentional and undesirable trips in addition to suffering the loss of market revenues. The introduction of an SND charge to batteries is inappropriate in this regard.

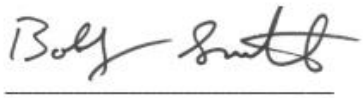
While we do not support the introduction of SND charges for battery units, in the event that this proposal is adopted, we have concerns with the proposed trip rates for units without a QFPN. The proposed rates for units without a QFPN are double that of the rates of units with a QFPN. This differentiation must be removed if SND charges are to be introduced for battery units as it overly penal on BESS units which at present are unable to have a QFPN due to system limitations which prevent batteries from being fairly included in scheduling and dispatch. Even if the market facilitated the normal trading of battery units the QFPN is always going to be for

a short period e.g. 1 or 2 hours as the current fleet of BESS units are likely to only operate at 1 cycle per day. Therefore, applying the higher penalty is unfair as this is how the BESS units are designed to work, they cannot have a QFPN throughout the day.

Conclusion

We would like to thank EirGrid and SONI for offering us the opportunity to respond to this consultation. We are available to discuss any of the points raised in our response.

Kind Regards,



Bobby Smith
Head of Energy Storage Ireland

6.6 FERA Response:

Federation of Energy Response Aggregators

FERA Response to
SONI/Eirgrid Consultation –
Harmonised Other System Charges for Oct24 to Sep25

FERA's members operate in the Demand Side Response sector of the electricity industry and perform a significant role in supporting the operation of the I-SEM balancing market and facilitating the continuous introduction of renewables. They have significant experience in working with SONI and Eirgrid to provide stability and balance to the system operations. The FERA members have together a registered capacity above 160MW, which carries a significant contribution to system support and stability.

The following comments are in relation to the published SONI/Eirgrid consultation and clause reference numbers are used where possible.

Introduction

The FERA members operate the aggregation of multiple sites in the provision of Demand Response, which comes from reduction of load, self-generation, and export onto the grid. The use of multiple sites means that outage rates are much lower and 'trips' of generation do not impact the whole unit. This functionality means that dispatched demand units are more robust in delivering the required volume than an equivalent conventional unit, which would lose all its provision during a trip.

Multiple sites also mean that the aggregated demand of those sites is flexible and changes constantly and at short notice. This is the nature of the DSU and AGU technology, and it differs from other dispatchable generation.

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Comments on proposals

Clause 2.1 The TSOs have provided a graph and a statement indicating a decline in the amount of trips. It would be useful to view data showing what the impact is since 2010 when the Harmonised charges began? It would also be informative to view what the introduction of more renewables and the usage of less conventional generation has had on the number of trips.

Clause 2.2.2 The reference to the impact of SNDs being applied to DSUs implies that there has been an improvement purely down to the SND introduction. It would have been more informative to have provided data over a wider timeframe, in order to see seasonal impact and development of additional DSU units. Lack of this data shows a limited impression of what has happened over the years.

The main thrust of this clause proposes to reduce the threshold from 4MW to 2MW. FERA previously stated that gas turbines have a threshold of 15MW despite the size of the gas turbine unit and thus the use of 4MW for DSUs was not in line with that approach. The new proposal to reduce this threshold even further to 2MW is still not reflective of this approach.

FERA believes that this reduction also shows the TSOs misunderstanding of how DSUs are compiled and how Demand reduction is provided. We reiterate that Demand Side Units aggregate a number of sites that consume electricity from the grid. These sites consumption is NOT static and is also impacted by a number of items, such as DNO/DSO instruction sets. The reduction of the threshold to 2MW shall increase the complexity of manual declarations, and that is a direct reflection of the granularity of EDIL declarations. Reducing the threshold to 2MW shall ultimately increase the workload for DSU operations.

The TSOs have recently declined some Grid Code modifications regarding DSUs as it would have increased the workload for the TSO Control Room staff. FERA believes that the proposed 2MW threshold shall have a similar impact to DSU operators.

We believe that aggregating multiple sites, and the need to be consistently adjusting MW availability declarations via EDIL is useful information the TSOs should welcome and not punish DSUs due to the size of the declaration change.

FERA previously mentioned that since losing up to 100MW in an instant doesn't cause the TSOs much concern then why does the loss of 2MW within 60 minutes (SND for DSU) cause such concern?

Clause 2.2.3 FERA previously commented on the notice time of 60 minutes for Demand Side Units, which reflects the variability of the technology. We do however notice that Batteries are not being treated in a similar fashion to DSUs, as they are being given a 30 minute timeframe. If SNDs are a reflection of impact to System Security, then batteries should be providing more notice rather than less. Batteries are not only dispatchable, but they are also having a more significant impact in the Reserve ancillary services provision. Since the TSOs need to schedule plant to provide ancillary services as well as energy then the more notice provided then the better the scheduling for system security shall be.

Clause 2.4 The TSOs have stated that whilst they shall continue to performance monitor the area of DSU Availability, they shall cease communicating such reports externally. FERA would ask which part of this process change shall the TSOs benefit from, and why not share such workload with those being monitored?

6.7 iPower Response:

iPower Response to

Harmonised Other System Charges Consultation Paper for Tariff Year 01 October 2024 to 30 September 2025.

iPower participates in both the Aggregated Generator Unit and Demand Side Unit response sectors of the electricity industry and perform a significant role in supporting the operation of the I-SEM balancing market and facilitating the continuous introduction of renewables.

iPower currently have a registered capacity of 88.469 MW which carries a significant contribution to system support and stability, and have considerable experience in working with SONI and EirGrid to provide stability and balance to system operations.

The following comments are in relation to the SONI/EirGrid Consultation published 10th May 2024, Harmonised Other System Charges Consultation Paper for Tariff Year 01 October 2024 to 30 September 2025, and clause reference numbers are used where possible.

Introduction

iPower operates the aggregation of multiple sites in both the provision of Demand Response via DSUs and Generation via an AGU. These units are able to reduce load, self-generate and export to the grid across multiple sites. The spread of multiple sites means that outage rates are much lower and 'trips' of generation do not impact the whole unit. This functionality means that dispatched DSUs and AGUs are more robust in delivering the required volume than an equivalent conventional unit, which would lose all its provision during a trip.

Aggregated demand across numerous sites provide greater flexibility.

It is for this reason that iPower wish to comment on the following parameter noted within the Consultation.

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Clause 2.2.2. Demand Side Unit Short Notice Declaration Charges

Proposed Change - To reduce the Threshold from 4MW to 2MW for DSUs

iPower Response - The Threshold Value should be treated as >4MW, not ≥4MW and there should be no further reduction in Threshold Value

Rationale:

The proposed reduction of the Threshold by 50% represents a substantial decrease which will have an unduly punitive impact on DSU capacity providers, particularly those with one or more large demand sites within their DSU, resulting in higher variability. iPower welcomes an explanation of how this lower Threshold value has been derived and why it is deemed necessary. This proposed reduction in an effort to maximise security of supply is particularly questionable when the system can tolerate a Trip of up to 100MW with no notice and "a SND can have the same impact on scheduling and dispatch as that of trips". iPower had previously raised concerns regarding the DSU SND Threshold Value being set at 4MW, as a differential value than the 15MW in place for conventional generation plants, which has nonetheless been in effect since October 2023.

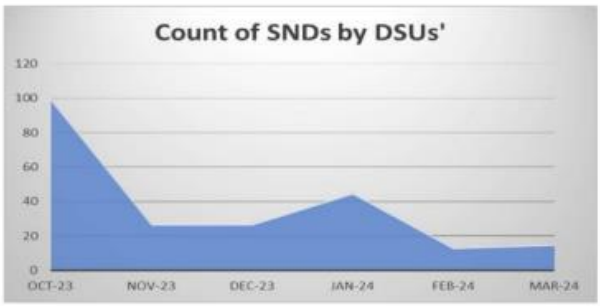

Figure 2:DSU SND count of when a charge applied

As demonstrated in above Figure 2, the SND charge introduced in October 2023 has been effective in maximising security of supply i.e. reducing the number of short notice downward declarations. As such, an effective solution is already in place, and iPower submits further,

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more restrictive, measures should not be put in place at this stage. iPower submits that the quoted value of 36% of DSU SNDs of less than 60 minutes in Jan-March 24 is not representative of the overall trend since the change to the notice period in October 2023, as it is skewed by an exceptional data point in January which is anomalous and unexplained.

This is further impacted by EDIL functionality which allows for only next whole number megawatt declarations - the Threshold Value being set at ≥4MW results in an effective Threshold of 3MW due to EDIL functionality. Thus, in effect, a proposed Threshold of 2MW will penalise declarations which are as little as 1.001 MW out from the originally declared value. Owing to the required frequency of declarations, which require substantial manual input, this proposed reduction is highly likely to represent an unduly punitive measure for DSU capacity providers.

As has been previously stated, DSU availability should not be expected to remain static – as their fuel source is the electricity demand which is aggregated across a number of IDSs. Technologies such as Solar, Wind, Battery Storage, Hydro, Pumped Storage all have limitations and are dependent on certain energy sources. Demand Side Response is not similar to conventional power plants and EirGrid/SONI may need to better understand the technologies participating within the All-Island electricity markets and within the Grid Code jurisdictions. Demand Side Response is mostly connection to the distribution network and NIE/ESB implement Instruction Sets, which can impact on the ability of Individual Demand Sites to be aggregated to the DSU. This impacts the availability of the unit.

As such, iPower proposes that the Threshold Value should be treated as >4MW, not ≥4MW and there should be no further reduction. iPower welcomes the continuing use of Factoring Scalars in the Notice Time Weight to incentivise more rather than less notice time.

Clause 2.2.3. Proposed introduction of SND Charge for Battery Energy Storage Power Stations

Proposed Change - SNDs to be introduced for Batteries for downward declarations at less than 30 minutes

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iPower Response – iPower contests the preferential treatment for Batteries and proposes equal treatment for SND Charge period for both DSUs and Batteries, to be set at less than 30 minutes for both.

Rationale:

The fact that DSUs are currently subject to SND charges for downwards declarations within a period of less than 60 minutes, yet the proposed SND charges for batteries will only occur within a period of less than 30 minutes represents an unfair treatment of DSUs and goes against the principle of technological agnosticism.

iPower submits that due to the fluctuating demand profile of DSUs, a Notice Period of 30 minutes is more apt to this technology type, compared to Batteries which have a static output.

The rationale provided for this differential treatment is limited; with the explanator "due to the technical parameters of the technology type". iPower submits that this limitation inherent in this technology type should not be offered as a justifiable basis for preferential treatment.

As such, iPower proposes equal treatment for short notice period for both DSUs and Batteries, to be set at less than 30 minutes for both.

Clause 2.4. Security of Supply

Proposed Change - To Cease External Circulation of Quarterly Performance Reports

iPower Response – To Continue External Circulation of QPRs

Rationale:

This Response contests the Proposal to cease external circulation of Quarterly Performance Reports. In the interests of performance improvement, learning and development, and transparency, this Response supports the continued external circulation of reports.

iPower proposes that the QPRs would be of more value to capacity providers with additional explanatory notes.

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Conclusion

The main concerns raised in this Consultation Response concern restrictive and differential treatment of DSUs, and as an aside, information sharing in the form of QPR circulation.

iPower responds that further reductions in Threshold Value are overly restrictive and unnecessary to improve system security, as effective measures are already in place. The Proposal to reduce the Threshold Value, taken in conjunction with the recently introduced 60-minute notice period (since October 2023) jointly results in an overly restrictive treatment of DSUs. Should SONI/EirGrid wish to impose such restrictions on DSU capacity providers, iPower submits that at most one of these changes (namely a 60-minute notice period or a reduction in Threshold Value) should apply. As such, iPower propose the notice period should be aligned with that of Batteries and set at a period of less than 30 minutes, in line with the principle of equitable treatment across technology types. Both are penalties against declarations of available energy, for which DSUs are not currently paid. Finally, the cessation of external circulation of QPRs reduces the flow of information between System Operators and Capacity Providers, which would be a regrettable regression, and a loss of learning opportunities for performance improvement.

Yours Sincerely,

Matt O'Kane

Managing Director

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