Recommendations on DS3 System Services Protocol – Regulated Arrangements

21st November 2022

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1 Executive Summary

On March 4th 2022 EirGrid and SONI published a consultation[1] on the proposed amendments to the DS3 System Services Protocol Document – Regulated Arrangements, Version 3.0, effective from 1st October 2020. This consultation was to be read in conjunction with the accompanying redlined Protocol document.

In this document, we consider the responses received to this consultation, provide clarifications where necessary, and make our recommendations.

The main recommendations and clarifications can be summarised as follows:

- We recommend reducing the threshold from 1MW to 0.5MW used to determine when to performance monitor all reserve services, FFR, POR, SOR and TOR1.
- In acknowledgment of comments received we recommend that the proposed change to the Ramping Margin Performance assessment methodology as set out in the consultation paper (section 2.2) is amended (as detailed in section 5.2.3 of this recommendations paper).
- In acknowledgment of comments received we recommend that the proposal as set out in the consultation paper (section 2.3) to amend section 5.8 'Primary Operating Reserve (POR)' is amended (as detailed in section 5.3.3).
- In acknowledgment of comments received to our proposal to make minor modifications to Sections 5.25 and 5.26 of the Protocol we recommend that these changes are amended (as detailed in section 5.4.3 of this recommendations paper).

[1] 'Consultation on DS3 System Services Protocol'

https://www.eirgridgroup.com/how-the-grid-works/ds3-programme/ds3-consultations-and-pub/index.xml

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3 Introduction

3.1 Background

EirGrid and SONI are the Transmission System Operators (TSOs) in Ireland and Northern Ireland. It is our job to manage the electricity supply and the flow of power from providers to consumers.

We have a responsibility to enable increased levels of renewable sources to generate on the power system while continuing to ensure that the system operates securely and efficiently. Our Delivering a Secure Sustainable Electricity System (DS3) programme addresses the challenges of increasing the allowable System Non-Synchronous Penetration (SNSP) up to 75%.

A key component of the DS3 programme is the System Services work stream. Its aim is to put in place the correct structure, level and type of services in order to ensure that the system can operate securely with these higher levels of non-synchronous generation.

3.2 Overview of System Services

EirGrid and SONI have licencing and statutory obligations to procure sufficient system services to enable efficient, reliable and secure power system operation. DS3 System Services are the contractual arrangements in Ireland and Northern Ireland for twelve system services (SIR, FFR, POR, SOR, TOR1, TOR2, SSRP, RRS, RRD, RM1, RM3, and RM8).

These 12 system services are required to support a move to higher levels of nonsynchronous generation. Table 1 provides a high-level summary of the current and proposed DS3 System Services.

Table 1 Summary of DS3 System Services[2]

Service Name	Abbreviation	Unit of Payment	Short Description
Synchronous Inertial Response	SIR	MWs^2h	(Stored kinetic energy)*(SIR Factor – 15)
Fast Frequency Response	FFR	MWh	MW delivered between 0.15 and 10 seconds
Primary Operating Reserve	POR	MWh	MW delivered between 5 and 15 seconds
Secondary Operating Reserve	SOR	MWh	MW delivered between 15 to 90 seconds
Tertiary Operating Reserve 1	TOR1	MWh	MW delivered between 90 seconds to 5 minutes
Tertiary Operating Reserve 2	TOR2	MWh	MW delivered between 5 minutes to 20 minutes
Replacement Reserve – Synchronised	RRS	MWh	MW delivered between 20 minutes to 1 hour
Replacement Reserve – Desynchronised	RRD	MWh	MW delivered between 20 minutes to 1 hour
Ramping Margin 1	RM1	MWh	The increased MW output that can be delivered with a good degree of certainty for the given time horizon.
Ramping Margin 3	RM3	MWh	
Ramping Margin 8	RM8	MWh	
Fast Post Fault Active Power Recovery	FPFAPR	MWh	Active power (MW) >90% within 250ms of voltage >90%
Steady State Reactive Power	SSRP	MVArh	(Mvar capability)*(% of capacity that Mvar capability is achievable)
Dynamic Reactive Response	DRR	MWh	Mvar capability during large (>30%) voltage dips

[2] Further detail on the DS3 System Services can be found at: http://www.eirgridgroup.com/how-the-grid-works/ds3-programme/

4 Responses to the Consultation

The consultation closed on 15th April 2022. In total, 11 responses were received. Parties who submitted responses are listed below:

Bord Gáis Energy (BGE)

Bord na Móna (BNM)

Cool Planet

DRAI

Electricity Association of Ireland (EAI)

Enel X

Energia

Energy Storage Ireland (ESI)

ESB Generation and Trading (ESB GT)

SSE

Statkraft

All responses (none were confidential) have been published alongside this recommendations paper and have been shared with the Regulatory Authorities.

5 Questions from the Consultation paper

All 11 respondents gave feedback to varying degrees relating to the questions posed. Each question will be dealt with specifically in this document and we will address the key themes that were raised under each question.

Additional comments not related to the consultation questionnaire have been included at the end of this section.

5.1 Threshold for Performance Monitoring of FFR, POR, SOR and TOR1

Question 1: Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?

5.1.1 Industry Responses

The following provides a high-level summary of the comments received.

- Six respondents agreed with our proposal to amend the tolerance threshold for all four System Services.
- Three respondents suggested 0.5MW threshold for the performance assessment of all reserve services.
- Two respondents stated they were not against the the proposed change, however requested further clarity was needed to ensure the proposed change would achieve the required objective.
- One respondent believed the minimum contracted volume should be reduced to align with the reduced threshold.
- Seven respondents stated the data poor process needs to be reviewed.
- Two comments suggested that when completing a performance test to reset a Providing Unit's Performance Scalar if the Providing Unit passes the TSO pays for the cost of the test and if the Providing Unit fails the Service Provider pays for the cost of the test.
- Four respondents commented that the data poor period should be extended to two years.

5.1.2 TSOs' Response

We acknowledge the responses received from industry regarding the modification. While all respondents were either in favour of, or not against the proposal, we note that three responses suggested 0.5MW threshold for the performance assessment of all reserve services rather than the lower threshold of 0.2MW for FFR. Our rationale for changing the threshold was to increase the number of units available for assessment and therefore reducing the likelihood of going data poor for smaller units. Whilst we believe this rationale is still valid for all reserve products, we are cognisant of the responses regarding the threshold for FFR and as the affect on the number of FFR assessments was small (presented at the Industry information session in March 2022) we will recommend that the 0.5MW threshold is applied to all reserve products. We will continue to monitor this threshold to determine if any further amendments would be beneficial to those Providing Units who are currently in the Data Poor category.

We note the comment from one respondent who believed the minimum contracted volume should be reduced to align with the reduced threshold. A change to minimum contracted volumes is not within the scope of this consultation.

With regards to the comments on the data poor process methodology the TSOs would like to state that this was not within the scope of this consultation. However, the TSOs welcome all comments received in this area and have provided more detail (in Section 5.4) on the performance testing required to reset the Performance Scalar affected by the Data Poor Performance Scalar methodology.

5.1.3 TSOs' Recommendation

The TSOs recommend implementing the proposal as presented in the consultation to reduce the tolerance threshold to 0.5MW used to determine when to performance monitor POR, SOR and TOR1. Based on the comments received we recommend that 0.5MW tolerance threshold is also used to determine when to performance monitor FFR rather than the 0.2MW tolerance threshold presented in the consultation paper.

5.2 Ramping Margin Performance Assessment methodology revision

Question 2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

5.2.1 Industry Responses

- One respondent was unclear as to how the new proposal would work for DSUs.
- Eight respondents supported the TSO in proposing a change from the Fail Sync method to an alternative assessment method.
- Two respondents do not support the proposal as stated in the consultation paper.
- Three respondents commented that the proposed assessment methodology did not reflect the definition of the System Service being assessed. One respondent further commented that assessing downwards ramping is fundamentally not relevant to the key criteria upon which the services such as RM1 are defined and that only upward ramping should be assessed.
- One respondent commented that they could not see how TOR2 could be fairly assessed using the proposed methodology.
- Five respondents made reference to the tolerances not being adequate and believe these should be raised to a higher value. Three respondents further commented that the 2% reg cap tolerance would not be sufficient to cover any instances of frequency correction.
- One respondent commented that attributes such as dwell points and varying unit ramp rates should be taken into account.
- One response, from the DSU industry, did not believe the current proposal was appropriate for DSUs and that limited rationale had been put forward to justify the proposed removal of DS3 Protocol Section 5.16.2.2.
- One respondent noted that units Under Test with a market test flag should be removed from assessment. Another respondent stated that at times when the unit cannot follow the technical characteristics and the TSO has been notified e.g. TOD changes, technical parameters impairment and testing, that these types of events also need to be considered.
- Five respondents queried how energy storage units would be assessed under the proposed methodology. In addition, a respondent questioned the impact of the Trading and Settlement Code modifications, Mod_20_21 and Mod_21_21.

5.2.2 TSOs' Response

The TSOs welcome the high volume of feedback received regarding the proposed change to the Ramping product performance assessment method.

We have agreement from the majority of industry who responded that the fail sync process currently employed is not an adequate method of assessment for a Ramping Margin product. We would like to highlight as presented in the Industry information session on 22nd March 2022 that as well as Dispatch Instructions (DIs), fail sync instructions from EDIL (TSO's Electronic Dispatch Instruction Logger) would also be included in the performance assessment.

We are conscious of the concerns raised by many who have given support to the change. To give a better understanding to the Service Providers who responded to the consultation we have engaged with all who currently have a DS3 contract for a Ramping product. We have shared the results of how their Providing Units would have faired if they have been assessed over the last two years with the proposed methodology.

We believe that using publicly available SEM data to monitor how accurately a providing unit follows their MW instruction is a more realistic assessment of a Ramping Margin product. To answer the respondees who had concerns that the methodology did not reflect the definition of the System Service being assessed; we are assessing ramping 'in general' with this methodology and therefore are aware of the limitations. We proposed to use upward and downward ramping as a larger amount of data can be assessed and therefore produce more reliable performance results. We are open to further reviews and improvements to this performance assessment methodology in future Protocol consultations.

With regards to the comment on the fair assessment of TOR2; since the introduction of DS3 System Services the TOR2, RRS and RRD performance scalars have always been aligned with either the TOR1 performance scalar or the RM1 performance scalar depending on whether the services are required in response to a Frequency Event, or whether they are required in response to a Synchronisation Dispatch Instruction. We are therefore aware of the limitations in aligning the performance scalars for TOR1 and RM1 with TOR2, RRS and RRD but until such time as we have an alternative method we will continue to do so.

In response to the comments received concerning the proposed tolerance levels we believe that an increase to 5% of Registered Capacity is sufficient to cover all instances where there may have been a variation in MW output due to changes in System Frequency. The tolerance of 5%

on Dispatch Quantity (DQ), as proposed in the consultation paper, will therefore no longer be required. We have used this tolerance in the reports that were issued to Service Providers who responded to the consultation.

The TSOs would like to note that the half hourly market profiling (the data proposed to be used in the performance assessment) takes into account ramp rates and dwell times and therefore additional adjustment measures are not required.

In response to the comment regarding the inappropriateness of the proposed method for DSUs and the removal of Section 5.16.2.2. The TSOs would like to highlight that currently, no metering data is supplied to the SEM for DSUs so therefore settlement is based on the DQ. Therefore, currently, the Fail Sync instruction is the only factor which can feed into affecting a DSUs performance; which is the current method of performance assessment. With regards to the removal of Section 5.16.2.2, this assessment methodology has never been implemented for DSUs nor is it planned to be implemented in the near future, therefore the TSOs believed that removing it was appropriate; DSUs that have a Ramping Margin contract have been assessed using the Fail Sync method since the introduction of DS3 System Services. However, we have no issue with retaining it with the proviso that until such time as the processes are in place to implement Section 5.16.2.2 DSUs are assessed in the same method as other technology types.

In response to the comment that units under test should be removed from assessment the TSOs would like to state that if a Service Provider believes they will not adhere to their DIs then Ramping Margin declarations can be declared to zero for the duration of the test and performance will not be assessed. The same scenario also applies to any technical parameters impairment. With regards to the comment on TOD changes, we believe the 5% reg cap tolerance and passes above 90% of RRP will account for these changes. As stated we have supplied two year's data to Service Providers and we are confident from the results of this data that these measures are sufficient to yield minimal impact in any exceptional scenarios.

In reponse to the comments on energy storage units the TSOs are aware that currently we do not have the policies and processes in place to performance assess Ramping Margin provided by newer technologies, such as some energy storage units. We are working to integrate these as soon as possible, however it should be noted that until such time these energy storage units will not be adversely impacted due to TSO monitoring processes not being implemented.

With regards to the comment on Market Modificiations, we have investigated the effects of the modifications (Mod_20_21 and Mod_21_21) and believe them to have a very minimal effect on the outcome of the ramping assessment. If a Service Provider believes that an 'undo scenario'

took place during an Assessable Trading Period they can query the data used to determine the scalar via the Query Process outlined in section 5.27.3 of the Protocol. The TSOs will investigate and rerun the data. A revised scalar pack will be issued if necessary.

5.2.3 TSOs' Recommendation

During our engagement with Service Providers who had Ramping Margin Products it became apparent that the methodology as described was unfairly skewed against Providing Units who have a low number of Assessable Trading Periods (ATPs) calculating their monthly Ramping Margin Performance Assessment Percentage (RPP).

As described in the consultation (section 2.2) these ATP's are the Trading Periods where the DQ was different from the previous Trading Period (Fail Sync instructions will also be included in the assessment as presented at the Industry information session on 22nd March 2022).

In theory these could account for more than one DI in a Trading Period, nevertheless it would only count as one ATP. The 50 ATP's therefore would equate to at least 50 DI's.

Our recommendation is that for those units that have less than 50 ATPs in a given month, to use a rolling total number of ATPs using ATPs from the previous months capped at 50 ATPs but looking back no more than six months.

This will reduce the impact of a small number of failures among an otherwise consistently good performance yet it is still a fair assessment to incentivise those units that are consistently failing to meet their DQs (within tolerance).

As proposed in the consultation we will retain the Dynamic Time Scaling Factor (Vm) which takes into account the previous 5 months with more emphasis on the recent months.

The TSOs recommend implementing the proposal as presented in Section 2.2 of the consultation with the following two amendments:

Tolerance Levels

For each of those assessable Trading Periods, the TSOs will evaluate whether the unit has followed those identified DQs, Yes (Y) or No (N) within a tolerance.

- Tolerance level = 5% of Registered Capacity.
- Tolerance used for under provision only. Over provision is not penalised.

Rolling total number of Assessable Trading Periods

If a Providing Unit has less than 50 ATPs in a given month, before calculating the RPP, ATPs from the previous months will be added to the assessment, either capped at 50 ATPs or looking back no more than six months.

5.3 Method of Performance Assessment of Primary Operating Reserve (POR)

Question 3: Do you have any comments on the proposals to modify the performance assessment of the POR service?

5.3.1 Industry Responses

- Ten respondents supported the proposal to modify the performance assessment of the POR service to an average requirement during the POR timeframe.
- Four respondents, who supported the change, additionally commented that the wording could be clearer with regards to when the Inertia Credit is applied.
- One respondent believed that POR inertia credit and POR governor droop multipliers should be removed so that all techologies are treated fairly.
- One respondent requested clarity as to how this proposal may impact the provision of POR over the whole market.

5.3.2 TSOs' Response

The comments regarding the proposed amendments to section 5.8 'Primary Operating Reserve (POR)' of the Protocol Document have been welcomed. For greater clarity will we add the word 'calculated' to the sentence in section 5.8.2: it will now read 'For Synchronous Providing Units, the POR performance will be assessed taking into account the Inertial Response of the Providing Unit reacting to the positive/negative rate of change of Transmission System Frequency *calculated* at the time at which the maximum POR frequency deviation occurs in the POR period.

In section 5.8.2.4 of the Protocol it details the calculation to determine the Average POR Requirement. To give additional clarity we have amended the final sentence in this section: it will now read 'The Inertial Response and the Inertial Response Calculation Tolerance (to the extent that the Providing Unit is a Synchronous Providing Unit), as set out in Schedule 9 of the

Agreement, is subtracted from the Average POR Requirement when determining the Performance Incident Scaling Factor (Q_i) (section 5.8.2.6).

The TSOs acknowledge the comment from the respondent who believed that POR inertia credit and POR governor droop multipliers should be removed so that all techologies are treated fairly. On the TSO website a note was published on 23 March 2021 that the removal of the POR inertia credit would not be included in the scope of changes consulted on for version 4. However, we will continue to review for future iterations.

We note the query from one respondent requesting clarity as to how this proposal may impact the provision of POR over the whole market. In the analysis that the TSO completed and presented prior to the consultation closing it showed that if the change to the POR assessment method had been applied to the Frequency Events over the previous two years there was no adverse financial affect on service providers and in some cases improved the outcome of the assessment.

5.3.3 TSOs' Recommendation

The TSOs recommend that the proposal as set out in the consultation paper to amend section 5.8 'Primary Operating Reserve (POR)' of the Protocol Document is implemented along with the changes below to two sentences in section 5.8.2 and section 5.8.2.4.

Section 5.8.2

'For Synchronous Providing Units, the POR performance will be assessed taking into account the Inertial Response of the Providing Unit reacting to the positive/negative rate of change of Transmission System Frequency *calculated* at the time at which the maximum POR frequency deviation occurs in the POR period.'

Section 5.8.2.4

'The Inertial Response and the Inertial Response Calculation Tolerance (to the extent that the Providing Unit is a Synchronous Providing Unit), as set out in Schedule 9 of the Agreement, is subtracted from the Average POR Requirement when determining the Performance Incident Scaling Factor (Q_i) (section 5.8.2.6).'

5.4 Minor Modifications – Sections 5.25 and 5.26

Question 4: Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

5.4.1 Industry Responses

The following provides a high-level summary of the large number of comments received:

- Eight respondents commented the changes to sections 5.25 and 5.26 results in a reduction in transparency and bring futher ambiguity. Two respondents additionally commented that “Figure 9 Data Poor Performance Scalar High Level Business Process Flow Chart" should be adapted rather than removed.
- One respondent had no comment on the change to section 5.25 however noted that where existing data is available this should be sought to reduce the need for testing. The respondent further stated they had no objection to removing Figure 9 and the proposed rewording for section 5.26.
- One respondent was broadly supportive of the proposed modifications to sections 5.25 and 5.26.
- Two respondents suggested the entire concept of Data-Poor-Performance-Scalar and its impact on DS3 revenue should be reconsidered, with a view to removing the link between Minimum-Data-Records-Requirement and the Performance Scalar.
- One respondent commented that as units are Grid Code compliant and tested at initial contract stage there is no need for performance tests. They should be used solely for the purpose of re-establishing capability after a modification.
- Three respondents suggested the use of alternative data from non chargeable events being used to reset Data Poor Scalars.
- One respondent queried what consideration was given to resource availability in the period between a request for a Performance Test and Performance Test completion, providing the example of wind farm units that fall Data Poor in the summer period where windy days are uncommon.
- A respondent commented that shortly after the TSOs introduced this Performance Test, a system wide refreshing of the scalars was applied to the wind generators providing POR, SOR and TOR1. This was welcomed at the time yet subsequently, windfarms are falling foul of the Data Poor scalar again for these services. Inexplicably, FFR was omitted from this refresh so units which have not been afforded the opportunity to demonstrate capability have been penalised.

- One respondent commented that the data poor period should be extended to two years. They further suggested that when completing a performance test to reset a Providing Unit's Performance Scalar if the Providing Unit passes the TSO pays for the cost of the test and if the Providing Unit fails the Service Provider pays for the cost of the test.
- One respondent queried how the Performance testing process would be clarified as the TSO had stated in the consultation paper that it would be addressed in the next DS3 Protocol consultation however the TSO proposed in the constultation Industry information session that this would be addressed through a separate document to the DS3 Protocol.

5.4.2 TSOs' Response

The TSOs welcome the high volume of feedback received regarding the minor modificiations to Sections 5.25 and 5.26 and on the wider data poor methodology.

We are mindful that this area of the Protocol does not have the level of detail that Service Providers have requested to enable them to proceed with resetting their Data Poor Performance Scalars. Therefore, as communicated at the Industry information session in March 2022, we have published a Data Poor Scenario Document on the TSOs' websites which gives direction on how the Data Poor Scalar will be reset. It should be noted that we have engaged with a number of Service Providers and the document is based on our current working practice.

The Scenario Document is aligned with the performance monitoring methodologies for each contracted DS3 System Service as published in the Protocol document.

In response to the comment that where existing data is available this should be sought to reduce the need for testing; we are in agreement. It has been current practice over the last year to use data from non-chargeable Frequency Events or accept previously approved test reports (test completed in the last 12 months) to reset Data Poor Performance Scalars. We have added text to the final paragraph of Section 5.25 to allow for these scenarios.

In response to the feedback for clarity we will not include the text 'within TSO standard processes' as proposed in the consultation paper however we have included additional text to the final paragraph of Section 5.25 *'The pass/fail criteria will be in line with performance monitoring assessment following a Frequency Event'.*

It is still our view that Figure 9 is not fit for purpose and should be removed from the Protocol. The processes detailed in the flow chat do not represent past or current methods and therefore are not relevant.

In response to the comment regarding the resetting of WFPS performance scalars; at present we do not have the processes in place to performance assess OR provided by WFPS. We are working to integrate these as soon as possible, however as the respondent has indicated, WFPS have not be adversely impacted due to TSO monitoring processes not being implemented. The reason why FFR was omitted from this performance scalar reset is due to the fact we have the processes in place to performance monitor the FFR service provided by WFPS.

In response to the request from Service Providers for clarity the text in Section 5.26 of the Procotol has been updated to state that if and when a Service Provider chooses to request a Performance Test, specific Data Poor Reset Test Reports are available by technology type on the TSOs' websites. In a further effort to aid clarity we have repeated the text added to Section 5.25 *'The pass/fail criteria will be in line with performance monitoring assessment following a Frequency Event'.*

All other changes as proposed in the Consultation paper to Section 5.26 will be implemented.

5.4.3 TSOs' Recommendation

The TSOs recommend that Figure 9 and the references to it are removed from Section 5.25 of the Protocol.

We recommend that the text 'The pass/fail criteria will be in line with performance monitoring assessment following a Frequency Event' is added to both Sections 5.25 and 5.26.

We recommend adding the text in italics to the following sentence in Section 5.25: The Providing Unit can *submit existing data from non-chargeable Frequency Events or* apply for a Performance Test.

We recommend that Section 5.26 is updated with the changes presented in the consultation paper along with references to the availability of technology specific test report templates to be used, when required, for Data Poor reset.

5.5 Additional comments from industry & TSOs' responses

In this section, we consider issues raised by respondents which are not directly connected to the questions asked in the consultation document.

- Four Respondents requested that the current Dynamic Time Scaling Factor Vm be reviewed to ensure that it remains fit for purpose and provides appropriate signals to service providers to improve their performance.
    - The TSOs would like to state that this was not in the scope of the recent consultation. However, performance monitoring methods are regularly evaluated for appropriateness and accuracy.

- A respondent commented that there are contradicting statements in the definition of Time Zero. In section 5.7.1.1 it states that "For all Providing Units that have a Reserve Trigger higher than 49.8Hz the Time Zero shall be determined as being the time when the Transmission System Frequency first passes through 49.8Hz."

  In section 5.14.1 it states "The assessment of FFR performance is carried out following the Frequency passing through the Reserve Trigger for the Providing Unit at time T=0." The respondent suggested that this is reworded to to be consistent with all providers.

    - The TSOs would like to state that since the introduction of FFR contracts in 2018 Time Zero has been defined when the frequency passed through the reserve trigger of the Providing Unit as per Section 5.14.1 of the Protocol.

      For the assessment of OR products (POR, SOR and TOR1) Time Zero has at all times been defined as per Section 5.7.1.1 of the Protocol.

      We are aware of the ambiguity and therefore have added additional text to the heading of Section 5.7.1.1 which states it only applies in the Time Zero determination for the POR, SOR and TOR1 System Service Performance Assessment. We have also added in the text '*for POR, SOR and TOR1 Performance Assessment*' to Section 5.7.1.2 when describing the use of a secondary metric for determining Pre-Event Frequency and Output. This has at all times only applied to OR Performance Assessment and therefore is a clarification rather than a change to the process.

- A respondent commented that the FFR assessment document needed to be added to the Protocol. They further requested clarity regarding the equation for calculating % FFR Achieved and % FFR Sustained.
    - As stated in the Recommendations paper for version 3 of the Protocol we provided the FFR assessment document to all Service Providers of FFR. It is now published on the TSOs' website. It should be noted that the level of detail in this document regarding the calculations for FFR Performance Assessment is much greater than the detail provided for OR in the Protocol which is why we have delayed adding to Section 5.14 of the Protocol. This is still under review for future versions of the Protocol. With regards to the request for clarity regarding the equation for calculating % FFR Achieved and % FFR Sustained, we will publish an updated version of the FFR Performance Assessment document to remove any ambiguity.

- One respondent highlighted that Under 5.8.2.1 it states "Calculation of Expected Provision of POR" however Expected Provision of POR doesn't appear to be a glossary definition.
    - The TSO would like to note that Expected Provision of POR is not a defined term and is line with the Expected Provision of SOR and TOR1. 'Expected' and 'POR' are both defined terms in the Glossary.

6 Next Steps

Once the RAs have considered these recommendations and make their final decision at an Oversight Committee meeting, the TSOs will then publish a revised Protocol document for the Regulated Arrangements which will have an effective date of 1st December 2022.

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Enel X Response to :
Consultation on DS3 System Service Protocol Document-published 04/mar/2022

Submitted by: Mairead Cousins (Program Manager, Energy Markets)

Date of Response:

Deadline for submission: 15/April/2022

Question 1: Threshold for Performance Monitoring of FFR, POR, SOR and TOR1

Response: The change in threshold for the performance monitoring will affect DSUs with low MW participation (perhaps just a single site). While all units suffering from Data-Poor-Scalar would be glad for the opportunity to have performance scalar reset, there would not seem to be any justification for a lower threshold for FFR (at 0.2MW). With a response of only 200kW, there is very little margin for error. Enel X suggests a threshold of 0.5MW, similar to the threshold for POR/SOR/TOR1.

Question 4: Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

Response to Q4 :

Comment on Data-Poor-Scalars: Enel X units have suffered from Data-Poor-Scalars, repeatedly, since the commencement of DS3 May 2018. The TSO has been very successful in putting in place a resilient and secure system which rarely sees Frequency drop below 49.7hz. The system frequency has not dropped below 49.6Hz in 15 months. While there are two mechanisms for participants to apply to rectify its scalar back to 1, both are subject to constraints.

First mechanism: a unit can request that Performance Data be assessed following a Frequency Event. Problems include: lack of Frequency Events at the lower Triggers. To fix this problem, units would need to be allowed to set their Trigger at a higher Trigger temporarily, until their unit (IDSs) have been triggered and responded. Also, Performance Reports are assessed only when a Frequency Event (drops through 49.7Hz) is registered. There are very few Frequency Events in the year, and it is possibly that units will wait 5 months until an event occurs which will be assessed.

With regard to the second mechanism: it is possible for participants to apply to the TSO for a Performance Test. The constraint here is that the mechanism is subject to TSO assessment. It is unclear if there are any conditions for approval, but the assessment may be delayed or rejected. This is understandable due to the time and labour involved in managing tests for DS3 services (multiple), for multiple sites (in a DSU). The entire concept of Data-Poor-Performance-Scalar and its impact on DS3 revenue should be reconsidered, with a view to removing the link between **Minimum-Data-Records-Requirement** and the Performance Scalar. The Performance Scalar already exists to incentive participants to deliver during Frequency Event and applies immediate and punitive penalties for units which fail to deliver.

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Question 2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

Response: I (Enel X) am a little unclear as to how the new proposal will work for DSUs.

Question 3: Do you have any comments on the proposals to modify the performance assessment of the POR service?
Response: Enel X supports the proposal to modify the performance Assessment of the POR service.
No further comment

Via email to: DS3@eirgrid.com & DS3@soni.ltd.uk

15th April 2022

DS3 Protocol Consultation Response

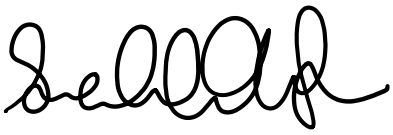
I am writing on behalf of the Demand Response Association of Ireland (DRAI), the trade association representing Demand Side Unit (DSU) providers in the all-island Single Electricity Market (SEM). By aggregating the otherwise passive electrical loads of individual consumers into substantial load portfolios, our members 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 600 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.

The DRAI expresses a single voice on policy and regulatory matters of common interest to its members, and we welcome the opportunity to provide feedback on the DS3 Protocol.

On behalf of the DRAI I hope that you find our response helpful and constructive.



Siobhán McHugh
DRAI CEO

Consultation Questions and DRAI Response

Please find below our specific responses to the questions in the consultation document:

Question 1: Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?

The DRAI recognises the intention of the reduction and consider that reducing this threshold from 1 MW to 0.5MW would be appropriate for all four services; FFR, POR, SOR and TOR1. We do not see any additional benefit of lowering the threshold for FFR to 0.2MW.

The DRAI understands the need to reduce the performance monitoring threshold to below the minimum provider size of 1 MW to avoid smaller units from becoming data poor. We are supportive of the proposal to reduce this threshold from 1 MW to 0.5 MW for POR, SOR, and TOR1. However, for FFR we believe that the proposal to reduce the threshold by 80% to 0.2 MW is excessive as a single step. As such, we recommend that in this instance the threshold for FFR be aligned with the proposed threshold of 0.5 MW for POR, SOR, and TOR1 and that any further reduction be deferred for consideration as part of a future consultation once the impact of the initial change has been observed.

The time resolution at which FFR is assessed, and the necessity for compliance at each time sample, mean any changes which impact the required tolerance are of high materiality to the outcome of the assessment. The DS3 Protocol provides that the Expected FFR Response and the applicable tolerance are linked: at low levels of Expected FFR Response (where 1 MW is greater than 50% of the Expected FFR Response) the tolerance becomes 50% of the Expected FFR Response. Therefore, reducing the performance monitoring threshold from 1.0 MW to 0.2 MW would also reduce the minimum tolerance applicable for FFR from 0.5 MW to 0.1 MW. DRAI believes this is an unreasonably small assessment tolerance, and reiterates the importance of assessing the implications of such a change in detail and ensuring its potential effects are understood by all provider types, prior to it being implemented.

Question 2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

The DRAI does not support the current proposals to materially change the method of assessment for the Ramping Margin products, which is used to determine the Performance Scalar for all services from TOR2, RRD, RM1, RM3 and RM8 when provision is required in response to a Dispatch Instruction.

The DRAI has a number of significant areas of concern:

1. **General principles**.

   The DRAI supports the TSOs' efforts to align the measurement metrics used for the performance monitoring of ramping services provided in response to a dispatch instruction to better reflect the performance of Providing Units. However, the performance assessment methodology must fundamentally reflect the definition of the system services products it is used to assess.

   This is not the case for the proposal put forward by the TSOs, which proposes to assess a unit's ability to accurately follow linear ramps, and use this to determine its Performance Scalar for all system services providing ramping in response to a Dispatch Instruction.

   Linear ramps between MWOF Dispatch Instructions are a key feature of the TSOs' tools which utilise Instruction Profiling based on a unit's technical characteristics to determine the expected output of a unit over each half-hourly settlement period. However, while there are existing market signals (in the form of Uninstructed Imbalance Charges) to incentivise units to match these Instruction Profiles as closely as possible, they remain an approximation, and DRAI is not aware of any Grid Code requirement to follow these exactly.

DRAI believes that it is inappropriate to base a unit's Performance Scalar on its ability to follow linear ramps where this is applied to the provision of system services which in no way reflect ability to follow linear ramps as a key criteria. The ability (or otherwise) to accurately follow linear ramps is not relevant to the key criteria of the services it is proposed to be used to assess.

Ultimately, the TSOs propose to use the new methodology to performance assess a number of ramping services provided in response to a Dispatch Instruction (TOR2, RRD, RM1, RM3 and RM8). The definition of these services fundamentally requires a unit to deliver additional MW output (or reduction in Demand) by a certain time after an event and sustain that delivery for a further defined period. None of the specifications for the affected services include reference to a unit's ability to follow linear ramping profiles. Accordingly, DRAI believes it is inappropriate to use a metric based on ability to follow linear ramps to performance assess such services.

DRAI does not agree that assessing the accuracy with which a unit follows linear Dispatch Instruction profiles is a realistic measure of assessing performance for any of the Ramping Margin products, nor for the other services (TOR2 and RRD) for which it is also intended to apply the proposed assessment methodology. DRAI believes the only reasonable assessment of such services must be linked to the core element of the product definitions: that is ability to deliver MW within a defined time period, and to sustain it for a further period of service. This is not reflected in the TSOs' current proposals.

The TSOs' current proposals would theoretically enable a unit which failed to deliver during the service period, and therefore failed to deliver the key requirement of the service, to still pass the proposed test criteria, provided they followed the linear ramps up to / down from the requested Dispatch Instruction level with high accuracy.

2. **Inappropriateness for DSUs**.

DSUs are subject to specific Grid Code commissioning testing which, as defined by Grid Code CC.7.4, explicitly require full response to be achieved within a DSU MW Response Time (time from Dispatch Instruction to achieving full DSU MW Response) of not greater than 1 hour.

It is not a requirement for a DSU to follow a linear ramp, and accordingly the DRAI believes it is unreasonable for the DS3 Protocol to performance assess units based on characteristics which (in addition to being different from the key criteria of the system services products being performance assessed, as set out above) are fundamentally different from the Grid Code criteria used to test and validate a Providing Unit. Very limited rationale has been put forward to justify the proposed removal of DS3 Protocol Section 5.16.2.2 which provides for a separate process for the performance monitoring of DSUs with regard to the ramping services and which links to the process to create a counterfactual vs. which to measure achieved demand response as set out in the EirGrid / SONI Grid Codes. Based on the concerns described in detail in this consultation response, as currently proposed DRAI does not support the application of the proposed new method of assessment to all technology types and the removal of these DSU specific provisions.

3. **Assessment of both upward and downward ramping**.

The proposed methodology assesses all Trading Periods where a unit's Dispatch Quantity value is different from the previous Trading Period, which would effectively assess performance for both upward and downwards ramping.

This is fundamentally in conflict with the definitions of the services which the methodology seeks to performance assess.

For example, the service definition for the Ramping Margin 1 service states that: *"Ramping Margin 1 is the increased MW Output and/or MW Reduction that a Providing Unit can provide*

to the Company within one hour of the Company issuing a Dispatch Instruction to a Service Provider and that the Providing Unit can maintain for a further two hours after the one hour period has elapsed. It is limited by the lowest Availability in that three hour period."

This service specification is purely focussed on the upward response that a Providing Unit can provide within the stated delivery period. All of the other system services to which the RM1 performance assessment methodology is applied are similarly defined.

The DRAI believes any assessment of a Providing Unit's ability to accurately follow downward ramping instructions is fundamentally not relevant to the key criteria upon which the services such as RM1 are defined, and accordingly assessment of any Trading Periods where a unit was ramping downward should not impact its Performance Scalar for the provision of such services.

4. **Ability to follow linear ramps is already covered by Uninstructed Imbalance Charges**.

   The proposed methodology effectively seeks to performance assess a Providing Unit's ability to accurately follow linear ramps within profiled Dispatch Instructions. The Uninstructed Imbalances Charges mechanism provided for under the Trading and Settlement Code is already a clearly defined mechanism in place to incentivise units to ensure that their actual output matches their Dispatch Quantity in each Trading Period within an agreed tolerance. This mechanism effectively penalises units by applying Discount for Over Generation / Premium for Under Generation factors to any imbalances outside of a tolerance, providing a strong economic signal to units to ensure their actual generation / demand response matches their Dispatch Instructions as closely as possible.

5. **Inappropriate tolerance levels**.

   The proposed methodology requires a unit to achieve its Dispatch Quantity within a tolerance that is the greater of 5% of the Dispatch Quantity or 2% of the unit's Registered Capacity.

   In line with the views of several market Participants raised at the DS3 Protocol Workshop held on Tuesday 22nd March 2022, the DRAI believes this tolerance level is unreasonably low.

For the provision of POR, SOR and TOR1, the DS3 Protocol performance assessment methodology results in a unit being awarded a full pass should it achieve greater or equal to 90% of the required volume of the service over the delivery period for that service. No justifying rationale has been provided for why the ramping performance assessment methodology should utilise a lower tolerance (5%) than these services which apply a 10% tolerance.

Question 3: Do you have any comments on the proposals to modify the performance assessment of the POR service?

The DRAI supports the proposal to align the POR assessment with the average assessment methodology used for the SOR and TOR1 services (assessment based on an average over the 5-15 sec POR period as opposed to a single datapoint for the nadir in the same period).

Question 4: Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

The DRAI is broadly supportive of the proposed modifications made to sections 5.25 and 5.26 within the marked up version of DS3 Protocol version 4.0.

The DRAI notes the pragmatic approach being taken by the testing teams within EirGrid and SONI to work collaboratively with Providing Units, within the significant discretion afforded to them within the current drafting of the DS3 Protocol, with regard to the specific case-by-case requirements in order to rectify a Providing Unit's Performance Scalar back to 1.0 after having become data poor.

Energia Group Response to EirGrid / SONI Consultation

Consultation on DS3 System Services Protocol Document

15 April 2022

1. Introduction

Energia Group welcomes the opportunity to respond to the TSO Consultation Paper titled "Consultation on DS3 System Services Protocol Document" (the "Consultation Paper") and the redlined Protocol Document under review ("the Protocol Document").

In respect of the proposed changes to the Protocol Document, Energia would like to re-iterate previously submitted comments that for all proposed changes analysis need to be provided to support the change and highlight any potential impacts on providers of system services. Furthermore, this should include a robust governance process being established to facilitate these changes which should include an appropriate framework to discuss potential changes to DS3 documents and the required evidence to justify proposed changes to be presented. In addition, as a member of The Electricity Association of Ireland (EAI), Energia are aware of the EAI response to the Consultation Paper and fully support the EAI response.

We have outlined our responses to the specific questions in the Consultation Paper below.

1. Specific Questions

Proposed changes to the Protocol Document

Question 1: Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR 1?

Energia Group welcome the intent of the proposal to reduce the number of units that are entering into the data poor performance scalar assessment methodology. The method of doing so being proposed is to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1. The threshold used to determine when to performance monitor FFR is proposed to be reduced from 1MW to 0.2MW whilst the threshold used to determine when to performance monitor POR, SOR and TOR1 is proposed to be reduced from 1 MW to 0.5 MW. However, whilst the intent behind the proposal is to be welcomed further clarity is needed to ensure that this will achieve its objective.

The issue of data poor is becoming more prevalent in the system due to the state of stability. However, it should not be the case that service providers are penalised as the system becomes more stable due to the reduction in the number of frequency of events arising and therefore the issue of data poor becoming more prevalent. Consideration must be given to how a reduction in the number of frequency events does not correlate with more units entering into the data poor performance scalar assessment methodology. Further consideration of potential options to improve this and so prevent the need for further testing should be considered.

An alternative option to that proposed in the Consultation Paper may be to extend the period after a service provider is deemed to be data poor from 12 months as it currently stands to 24 months. This will potentially allow for more frequency events to occur and therefore to be assessed. Furthermore, where testing is required, it could be the case that the cost of a failed test would be for the service provider's account whereas and the cost of a successful test outcome would be for the TSO. Such alternative methods should be considered by the TSO in relation to the issue of data poor with the

overarching fundamental point being that service providers are not unfairly penalised due to a more stable system. In summary there are less data poor events being recorded as a result of improving performance and any changes that increases the stringency of the assessment needs to have considerable analysis so that there are no unintended consequences, as providers have contracted based on the existing set of parameters.

Question 2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

Energia Group are of the view that the current ramping assessment methodology, which is currently carried out by only assessing the FAIL SYNC instruction, is flawed. It is disproportionate to only apply an incentive in relation to this sole instruction when generator units are continually providing other ramping services which are not being recognised. However, whilst supportive of a change in this area, the assessment to provide this service should be based on the generator unit's technical ability to follow the dispatch instructions and we are concerned that the proposed change does not fully achieve this.

The following factors need further consideration:

- The proposal needs to include frequency correction which appears to be partly covered by the 2% registered capacity, however this is not sufficient. The Grid Code requirement is a 4% droop and the 2% of registered capacity will cover this if the system frequency remains below 50.04Hz. However, looking at the market published frequency data over the last few years, the system operates above this level more than 11% of the time, therefore we suggest this value needs to be increased or another method of frequency correction applied e.g the use of market frequency parameters like TOLUG;
- In respect of start-up instructions, it is impossible for a unit to follow the profile exactly. This needs to be taken into consideration with an understanding of how many start up instructions there are as a percentage of Dispatch Instructions, some units could be unfairly disadvantaged by this if they are asked to start more regularly than others;
- Similarly, when Under Test the unit may not be able to follow the instruction profile exactly and so the market test flag should be used to remove these dispatch instructions from the analysis;
- Units also cannot change their TOD submissions within day (i.e. a change from running CCGT to OCGT) and this needs to be accounted for, units cannot be penalised for the being flexible and providing this service.

Given the above factors, we feel further consideration of the proposed change and how they deal with the identified issues above needs to be carried out to ensure there will be no adverse impacts on existing service providers due to no impairment of their units or contracted parameters.

An additional point of concern is the impact on batteries on the system who are currently not receiving dispatch instructions either for charging or discharging. This technology and potentially others cannot be penalised or considered data poor due to no fault of their own.

Question 3: Do you have any comments on the proposals to modify the performance assessment of the POR service?

Energia Group have previously advocated that the POR assessment should be aligned with SOR assessment, with the POR assessment based on the average provision requirements between 5 and 15 seconds. Energia Group are pleased to see that the Inertial Credit has been maintained and wish to highlight that the removal of this should not be considered in another Protocol consultation as the technical reasons that gave rise to this requirement in 2015 are still present today. In addition, we understand it is the proposal of the TSO to apply this Inertial Credit after the calculation of the Average POR Requirement has been completed and that the Inertia calculation is carried out at one point, the time at which the Maximum POR Frequency Deviation occurs in the POR period. We agree with this methodology however we believe the wording could be clearer to prevent ambiguity that the calculation is applied at one point only but the resultant value is applied to the full POR period. In addition to this the calculation of this Inertial Response should be included in the Protocol to help providers understand the application of the calculation.

Question 4: Do you have any comments on the minor modifications proposed to section 5.25 and 5.26?

Energia Group do not agree that the proposed "minor" modifications to section 5.25 and 5.6 of the Protocol Document are beneficial. Rather we would view the proposed changes as moving towards a reduction in transparency in relation to data poor and performance testing. Instead, Energia Group would recommend that the performance testing process is fixed and remaining in the Protocol Document where consultation and appropriate governance are in place, to ensure that it was fit for purpose and suitably transparent.

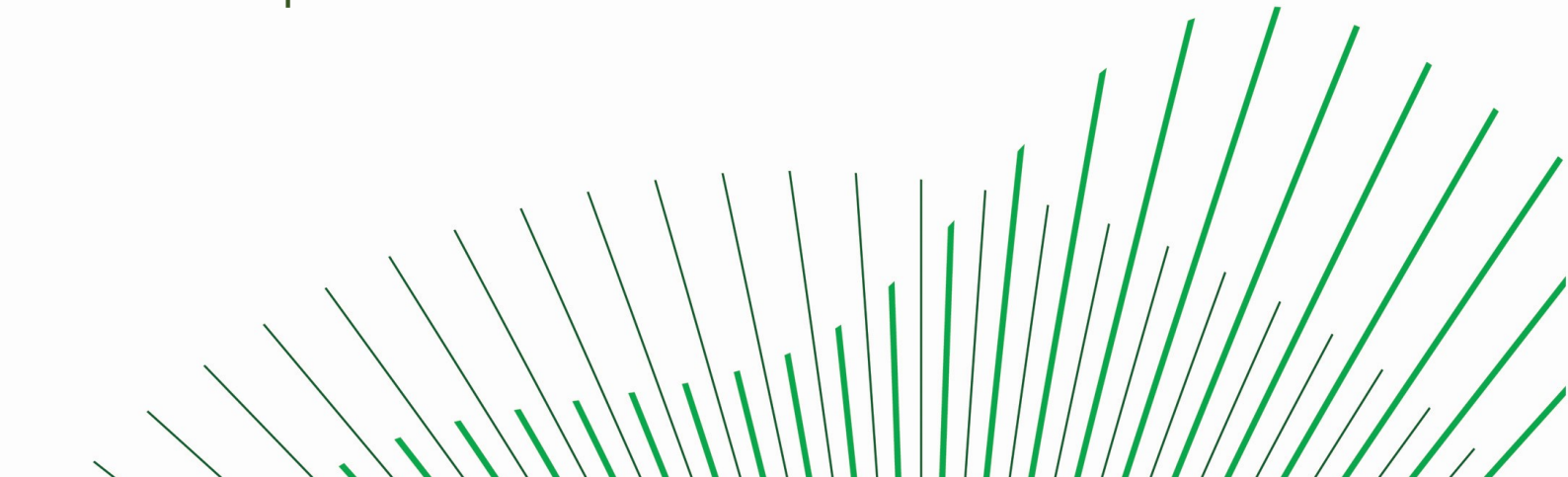
In addition, Figure 9, which should represent a high-level business process flow chart for the performance scalar process, should be improved to make the testing process better understood, rather than removed as proposed.

Bord na Móna

DS3 System Services Protocol Document

Consultation Response

15 April 2022



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1 Introduction

Bord na Móna (BnM) is evolving to deliver essential climate solutions for Ireland. Having ceased peat harvesting, our focus is on developing Climate Solutions in renewable energy, sustainable waste management, carbon storage and biodiversity conservation.

BnM has a long history of contributing to Ireland's energy demand with both conventional and renewable energy and we are continuously considering development options that respond further to the energy needs of the Irish system while supporting the low carbon transition. We currently have over 500MW of generation assets under management and we are actively progressing projects totalling 1.5GW across our landbank.

At BnM we are taking real and tangible action by building and managing large scale renewable energy infrastructure to deliver clean power for the national grid. We are a leading developer of onshore wind in Ireland and continue to work across solar, biomass, biogas, storage and other technologies to help achieve Ireland's 80% renewable electricity target by 2030 – to provide Energy Security for the future.

2 Response – General Preliminary Comments
(complemented by specific comments in Sections 3 & 4)

Bord na Móna welcomes the opportunity to respond to this important consultation. In the points below we set the context of our response and highlight the following high level observations:-

- The introduction to the Consultation paper highlights the relevance of DS3/System Services towards achieving secure operation of the system at higher levels of System Non Sychronous Penetration (SNSP):
  'A key component of the current DS3 programme is the System Services work stream. Its aim is to put in place the correct structure, level and type of services in order to ensure that the system can operate securely with these higher levels of non-synchronous generation.'
- The importance of the DS3 or System services cannot be underestimated as a key facilitator in targeting Ireland's 2030 Climate goals, with >100% SNSP and very significant levels of oversupply, in achieving 80% RES-E on the System.
- This can only be achieved where there is **balanced** risk between the System Operator and the Service provider/project developer; the provision of a service or of a project must be supportable by an investment case.
- This consultation on the Protocol document presents proposed changes. It is vital within effective Governance that there is full impact assessment of such changes before they are introduced. This assessment must include adequate impact assessment on the Service provider/project developer Investment case.
- We are acutely aware that the implementation of changes within the Protocol document could likely carry forward from today's current arrangements into the redesigned DS3/System Services repurposed for greater than 75% SNSP – making the importance of impact assessment even more acute.

The points above can be summarised in stressing that there is a mutual interdependence between System Operators and System Providers.

For this relationship to be tenable there must be market signals clearly supporting a viable investor case; the counter alternative is to not secure the investments and for the Climate targets to fall short, and for Secure energy supply to be severely endangered.

3 Response to Consultation Questions

Q1: Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?
Q2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?
Q3: Do you have any comments on the proposals to modify the performance assessment of the POR service?
Q4: Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

Q1: Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?

The stated intention of this proposal is to address the data poor issue, and to reduce the associated reduction in payments plus testing cost, by increasing the number of events.

We support the objective within the current design of the data poor mechanism however, the consultation does not provide any impact assessment on the service provider along the lines of:

-increase in number of events per asset, ie, what beneficial effect to the service provider in avoiding the current data poor scalar?

-increase in risk of event failure by the service provider by taking on such events with lower threshold assessment levels?

At a more fundamental level, we have raised before the inverted logic underpinning the design of the data poor mechanism whereby service providers who collectively contribute to the stable operation of the system, which results in the infrequency of such events, are then penalised because of not being exposed to such an event.

The design signal is that collective good behaviour is being punished financially, and we urge for an alternative approach.

Consequently, with regard to this proposal (within the current approach) – we request a full impact assessment per above in relation to:

-increase in number of events per asset (what beneficial effect to the service provider)

-increase in risk of event failure by the service provider by taking on such events with lower threshold assessment levels

Re-addressing the fundamental concern, with regard to re-design of the data poor provision, we would propose, as a first step, that the decay period be pushed back from 12 months to 24 months, as a stop-gap until such time as a better methodology is determined which incorporates a market signal which rewards good behaviour rather than vice versa. We consider this point to be especially important within the current redesign of the System Services Future Arrangements work programme.

In addition, while the current methodology exists, we echo a proposal made in previous submissions to balance/compromise with what currently exists, whereby the service provider would decide at the end of the 24 month period whether to test the unit or enter the data poor decay multiplier – that the cost of a failed test would be for the service provider's account – and the cost of a successful test outcome would be for the System Operator. The test would be for an agreed set of services, depending on the asset and its performance, with not every service needing to be tested.

Q2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

While we understand the rationale underpinning this proposal, we highlight the considerable level of increased risk to the Service Provider – and note that the cost to the consumer of the resulting change will be minimised where the risk premium associated with that change is mitigated.

The proposal moves away from a full pass/fail on the basis of 'passing' with full synchronisation and 'failing' if do not synchronise successfully, towards one which includes these, but which is based on how closely the unit moves in relation to its Dispatch instruction.

To minimise the negative impact on the Consumer it will be essential that the tolerance levels within which the performance will NOT be penalised are set very carefully – with regard to capturing and fully taking into account the potential negative impact on current and future ramping service providers' prospective revenues which could be significantly harmed within the proposed monthly assessment proposal.

The current proposal towards Metered Quantity being aligned with Dispatch Quantity is based on a Tolerance level of the Max of [5%] of DQ and [2%] tolerance of Registered Capacity.
We are conscious that such levels as these would not permit units to operate, without penalty, within their contracted droop, ie, within their technical characteristics. We would support the notion of an industry workshop to explore these and other technical details – with a view towards mitigating consumer risk by reducing project investor risk.

We are also conscious, from preliminary analysis of data relating to our generic assets, that there is strong empirical analysis to support tolerance values of greater than each of [5%] of DQ and [2%] tolerance of Registered Capacity, which we would be pleased to share with the System Operator.

In relation to Batteries – our understanding is that there are severe limitations around the dispatch/charging of batteries and that consequently this proposed mechanism may not work at all for them, in the absence of further developments. We are cautiously aware of work to ensure the KPI for SEMO to deliver on the integration of Batteries within SEMO Price Control SEM 21 073 but remain concerned about the timelines for implementation. We would welcome clarity on the issues and timelines for their resolution.

Q3: Do you have any comments on the proposals to modify the performance assessment of the POR service?

We do not currently have an issue, in general, with regard to this proposal to amend the methodology for the performance assessment of POR.

However, the proviso ('in general') is that we understand that the intention is to apply the calculated Inertia Credit, which is calculated at the time at which the Maximum POR Frequency Deviation occurs in the POR period, to the final Expected POR value. If this is the case, which is a condition of

our position, the wording in the Protocol needs to be revised to make this clear so that the value of inertia credit response is appropriately recognised and remunerated.

So, while we do not have an issue within this proposal to align the methodology for POR with many of the other Reserve services, by averaging over the period, we would express that there is not scope within a future visit to POR design to potentially consider removing the POR Inertia credit, without severely disrupting the POR investor case. This was a very clear finding from the previous Protocol Document consultation[1]. Therefore, we welcome that the proposals within this consultation agree to continue to use the POR Inertia credit.

Q4: Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

We do not understand the rationale for the removal of "Figure 9 Data Poor Performance Scalar High Level Business Process Flow Chart" from the protocol document, and would be concerned that its removal would bring with it ambiguity.

The processes within the flow chart should be clearly defined and any changes to these processes should be consulted with industry.

This issue is compounded within 5.26, in so far as it references Figure 9.

Other Consideration – ref Table 1: Calculation of the Dynamic Time Scaling Factor (Vm)

We believe that the Dynamic Time Scaling Factor needs to be revisited – and to reflect the incremental increase in risk being taken on by service providers as a result of many incremental performance related proposals within this and other consultations.

- We believe that its current impact by reducing payments for up to 5 months, up to a max value of 25% of annual payments is far too punitive.
- Furthermore it does not seem intuitive that the effect of a singular poor performance in one month should carry forward over a further 5 months of good performances, before full recovery
- So, two elements i) the size of the punishment and ii) the time period over which the penalty is exercised

Another alternative for consideration of course would be, for certain measures, to somewhat relax the S value scale used in determining the Performance Incident Scaling Factor from its current level of >0.9 for a full pass, extending down to a fail at less than or equal to 0.7. Perhaps the 0.9/0.7 could switch to 0.7/0.5 (exact values would need to be based on careful analysis) – a potential simple solution were a particular methodology to prove difficult.

Lastly we support that consideration should be given to linking the number of events in the month being assessed and the proportion of events passed to the triggering of a scalar.

[1] Consultation on DS3 System Services Protocol Document, 8th April 2020

4 Concluding Comments & Summary

In conclusion we point to:

1. The current, and increasing importance of System Services as an enabler for achieving climate targets
2. The mutual interdependence between SO and Service provider/project developer
3. The Critical Need to Support the Investor case within consideration of these proposals (applies equally to the System Services Future Arrangements)
4. With regard to proposed changes; Changes need to be introduced with full impact assessments; we do not have sufficient sight of these & request same

   i) We do not have visibility of the increase in risk and prospective reduction in revenue as a result of failing at the reduced levels proposed for assessment thresholds in respect of FFR, POR, SOR, TOR. We believe it appropriate that we have these before changes are made.

   We propose that the Data Poor methodology and what it sets out to achieve needs to be revisited – with appropriate re-design of the methodology. We propose, as an interim measure, that the decay period be pushed back from 12 months to 24 months, as a stop-gap, pending a re-design which is corrected to give the correct market signals. The appropriate allocation of testing costs would represent one such correction.

   It is important to incorporate these corrections within the redesign already underway for Future Arrangements for System Services (out to 2030 and beyond).

   ii) The ramping proposal comes with an increased level of performance risk to the service provider. The level of this risk, and associated potential reduced revenues, is directly related to the chosen tolerance levels, within the proposal. We are conscious that such levels as these would not permit units to operate, without penalty, within their contracted droop, ie, within their technical characteristics. Furthermore, there is strong empirical analysis to support tolerance values of greater than each of [5%] of DQ and [2%] tolerance of Registered Capacity. We would welcome the opportunity for an industry workshop to further explore, and to help develop a solution which will reflect the needs of the consumer – as well as of the Service provider/Project developer.

   We request clarification as how this proposal would work with Batteries – given current issues around their operation.

   iii) We do not currently have an issue, in general, with regard to the proposal to amend the methodology for the performance assessment of POR – subject to clarification around the application of the POR Inertia credit.

   We note the continuation of the use of the POR Inertia credit, based on useful feedback from the previous Consultation on the Protocol Document in April 2020.

   iv) With regard to the Minor Modification proposals – our view is to avoid ambiguity and to consult and agree with industry on proposed changes as the need arises.

   v) Other Consideration:
   We believe that the Dynamic Time Scaling Factor needs to be revisited – and to reflect the incremental increase in risk being taken on by service providers as a result of many incremental performance related proposals within this and other consultations.

We would urge re-assessment of two elements i) the size of the punishment and ii) the time period over which the penalty is exercised.

Lastly, we support that consideration should be given to linking the number of events in the month being assessed and the proportion of events passed to the triggering of a scalar.

We hope that you find these comments of use and submit them for your consideration. We would be pleased of course to discuss any aspect of our response should you so wish.

For and on behalf of Bord na Móna

Commercial Regulatory and Compliance
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15th April 2022

Re: Consultation on proposed version 4 of the DS3 System Services Protocol Document

Dear DS3 Protocol team,

Bord Gáis Energy (**BGE**) welcomes the opportunity to respond to this consultation on the proposed version 4 of the DS3 System Services Protocol document.

Our two main concerns that we believe warrant further consideration and discussion with a view to incorporating changes into the proposed v4 of the Protocol this year, are:

1. **Data poor situations**: a new approach to triggering performance assessments, or a new period of time before which a unit is deemed to become data poor, is required in order to avoid units unnecessarily finding themselves in a state of "data poor". When insufficient performance assessments occur, a unit becomes data poor which has the effect of greatly eroding the system services revenue a unit can earn. The main trigger for performance assessment is a drop in frequency and when the low frequency threshold is not breached regularly enough, performance assessments do not occur regularly enough, which in turn causes data poor situations. However, a lack of drop in frequency below permissible boundaries indicates that service providers are performing as required and expected in line with their contractual obligations. Thus, placing units into a state of 'data poor' with consequential reductions in system services revenues is counter-intuitive and needs to be addressed and rectified as soon as possible. Please see our suggestions in answer 1 below; and
2. **The level and duration of scalars**: the five-month duration of time it takes for a unit to return to full system services revenue levels after failing a performance assessment and the level at which the dynamic time scaling factor ('**Vm'**) is set needs revision. Currently the Vm mainly has the effect of reducing DS3 revenues for providers and the overall pay-outs with no practical effect in terms of improving service provider performance or improving how the system operator operates the grid. Furthermore the rationale for a monthly average as outlined in Table 1 on page 24 of the Protocol is nonsensical. There should for example be a linkage between the number of events in the period being assessed and the number of events for which performance 'failure' occurs. We can no longer ignore the necessity of linking the frequency of events to the Vm scaler to appropriately incentivise/ reward behaviour. The scalars are currently over-penal, do not fairly reflect the value units are providing, undermine project revenues and business cases. A revision of the key purpose scalars seeks to achieve, and the effectiveness of current values and the period of time it takes to get back to full remuneration needs urgent review.

The above two issues are concerns that BGE has that need to be addressed in this proposed version 4 of the Protocol in our view. BGE has flagged these concerns for a number of years now to no avail. We do not believe that it is acceptable that no further consultation addressing these two issues would occur until the revision of the Protocol in 2023. We therefore call for further discussions with interested stakeholders around how best to mitigate our data poor and scalar impact concerns in a way that balances the needs of the system with investor confidence and consumer value, with a view to implementing improvements and fairer rules in 2022.

With respect to the proposed changes in the consultation, BGE largely accepts the proposed changes around the reduction of the thresholds to performance monitor FFR-TOR1 and the duration over which POR is to be assessed subject to clarification of a couple of items as outlined in answers 1 and 3. Regarding the proposed changes to the assessment method of ramping margin (**RM**) products, while we agree an improvement is needed in the approach to RM performance assessments there are a number of queries outlined in our answer to question 2 below which we would appreciate further discussion on before finalising any update to

the Protocol. Outlined below are BGE's answers to the questions posed in the consultation followed by our view that an industry workshop should occur before finalising proposed v4 of the Protocol.

Question 1: Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?

BGE believes that the proposed reduction in performance monitoring thresholds should bode well for when units with smaller levels of contracted system services volumes are triggered for performance assessment. We therefore support the reduced thresholds. However, the thresholds will only be meaningful and better help ensure that providers of smaller volumes of system services stay out of "data poor" scenarios if our concern around data poor situations is addressed. Please see our opening comments on page 1 above on this issue. In essence if the 'trigger' for initiating a performance assessment does not occur, under the current rules whereby a performance incident scaling factor has to be reported every 12 months, a unit will fall into the data poor situation regardless of the threshold level to which this question relates.

The lack of sufficient performance incidences every 12 months, that would trigger a performance assessment, indicates that the system is performing well, and system service providers are meeting their obligations helping to mitigate the number of system events arising. Penalising units by allowing them enter data poor situations is therefore counterintuitive as the units are acting in line with expectations and have no control over, or no way of managing, the risk of falling into data poor situations. Good performance warrants recognition and not penalty. The current application of decaying scalars due to data poor situations is unfairly penal. Consideration should be given to, for example:

- Extending the period over which performance incidences can trigger assessments (e.g. to 24 months) and/ or
- Reviewing the Hz level at which a performance incident and assessment may be triggered, and at which point of failure (e.g. first/ second/ third failure of service) scalars should apply from, and/ or
- Determining a fair allocation of costs of ad-hoc tests that service providers currently need to request to avoid or come out of data poor situations. The costs of these tests are a barrier to units mitigating the risk of being data poor through no fault of their own given it is their good performance that leads to being data poor. In the absence of testing EirGrid ultimately needs to run higher reserve requirements which is a cost that could be mitigated by better addressing data poor situations.

It is necessary however for any changes (to the duration / Hz level trigger / ad-hoc testing) to be accompanied by robust analysis and impact assessment on the full range of service providers and consumers so that industry and the Regulatory Authorities (**RAs**) understand the implications as well as the system operator. We ask for such analysis and amendments to be considered as soon as possible and for necessary agreed changes to be incorporated into version 4 of the Protocol, in 2022.

Question 2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin (RM) products?

In principle BGE supports a move away from the current 'fail sync' approach of performance assessment of RM to an approach that also assesses performance when the unit is already synchronised. This would also allow the unit to be assessed for RM when a RM product can only be provided once synchronised and mitigates the risk to revenue for units that are more susceptible to cycling than others picking up a 'fail sync'. Our understanding of the proposed new approach outlined in the Protocol however needs to be fully closed out before we can lend our full support to the proposal as drafted. The issues we request more insights on before v4 of the Protocol is finalised include:

i. **Confirmation of our understanding in practice of the proposal**: our understanding of the proposal is that EDIL instructions will be used for performance monitoring of DS3 products and that all MWOF dispatch instructions as well as sync, desync and fail sync will be included in future assessments. We would welcome confirmation that this is the case in practice as such detailed analysis of the impact of the proposal on the range of service providers is not given in the consultation. Such analysis should support any confirmation of our understanding outlined above.
ii. **The appropriate tolerances for accounting for unit specific attributes in achieving the 90% success targe**t: for example, the time frames of dispatch instruction ramps will not always align with the timeframes of the DS3 product. Failure to ramp up sufficiently within 10 minutes in line with a dispatch instruction is not a good guide for example to whether a unit could ramp up to full capacity within an hour (RM1). Current output levels of a unit also can affect their ramp rates and not correlate

to system service contract volumes exactly. It is likely that attributes such as dwell points and varying unit ramp rates should at least to some extent be accounted for in counting towards the 90% pass threshold. Unit specific tolerances in this regard are most likely needed but the tolerances applied should not be over-generous such that good performance incentives are maintained and cost-effective. Analysis of the effectiveness of appropriate tolerances for unit types and the resulting pass/ fail rate towards achieving the 90% threshold would be very helpful in this regard.

iii. **How did EirGrid conclude that a 70% performance was an appropriate level at which to apply a value of '0' remuneration**: Publication of the analysis that justifies why 70% is the worst rewardable performance by service providers and how that impacts the range of service providers and the level of DS3 revenue pay-outs is requested. Such insights would help inform us for example as to how fair it is for c. one-twentieth of the payment to be received if you achieve 71% performance.

Question 3: Do you have any comments on the proposals to modify the performance assessment of the POR service?

BGE supports the proposed new approach to assessing POR and we welcome the insights EirGrid has provided us in terms of analysis in this regard. We do support the call by EAI in its response however around clarification that the POR inertia credit will continue to be counted towards POR performance responses. We do not believe that a review of this POR inertia credit is warranted now or in future given that if it was discounted then the inherent technical reaction of the units that provide the inertia response will not be appropriately recognised. The DS3 Protocol must appreciate the contribution of units' instant reactions (from 0 seconds+) to frequency events. Progressing with removal of the POR Inertia Credit would amount to a "free rider" outcome for the TSO in circumstances where there is relatively high inertia on the system and the recovery of system frequency post an event accrued slowly through the POR timeframe.

Question 4: Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

Regarding these sections, if the TSO does not plan to performance test a unit in line with what was originally in figure 9, we request details on what alternative (e.g., more/ less stringent, does it depend on scenario?) approach the TSO proposes otherwise. In any event, the performance test to which a provider unit will be subjected if it requests such a test must be highly transparent and known in advance. If an alternative approach is planned that should be outlined in the Protocol. Otherwise, we believe figure 9 should remain as is.

In conclusion we believe that ideally an industry workshop should be held to bottom out on the ongoing concerns around data poor situations and mitigating their occurrence and on the ongoing counter-intuitive nature of performance scalars in terms of how penal they are, their duration of penalty and the lack of linkage to number of "failed" assessments. Such a workshop could also be used to close out clarifications needed on how the ramping assessment will be applied and any identifiable implications on service provider types. Relevant TSO analysis and impact assessments on service providers of possible changes that could be applied to improve these three areas would help discussions at such a workshop. We support progressing of these three areas as early as possible for inclusion of improvements in v4 of the Protocol this year.

I hope you find the above suggestions and views clear and helpful. Please do contact me if you have any queries thereon.

Yours faithfully,

Julie-Anne Hannon
Regulatory Affairs – Commercial
Bord Gáis Energy

{By email}

EIRGRID TSO; SONI TSO DS3 SYSTEM SERVICES - PROTOCOL DOCUMENT CONSULTATION PAPER

SSE RESPONSE

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INTRODUCTION

SSE welcomes the opportunity to respond to the DS3 System Services Protocol Document consultation published by EirGrid and SONI on 4 March 2022.

For the avoidance of doubt, this is a non-confidential response.

WHO WE ARE

At SSE we're proud to make a difference. From small beginnings we've grown to become one of Ireland's largest energy providers, supplying green electricity and natural gas to over 700,000 homes and businesses on the island. We are driven by our purpose: to provide energy needed today while building a better world of energy for tomorrow.

Since entering the Irish energy market in 2008 we have invested significantly to grow our business here, with a total economic contribution of €3.8bn to Ireland's economy over the past five years. We own and operate 890MW of onshore wind capacity across the island (including Northern Ireland's largest, Slieve Kirk Wind Park), offsetting over 700,000 tonnes in carbon emissions annually. Our portfolio includes Ireland's largest onshore wind farm, the 174MW Galway Wind Park, which was jointly developed with Coillte. We also own and operate the Great Island Power Station, Ireland's newest gas station and a strategic asset for Ireland's security of electricity supply.

As a leading developer of offshore wind energy in Great Britain, we believe offshore wind has the potential to transform Ireland's response to climate change. SSE is currently progressing the development of a consented offshore windfarm off the coast of Co. Wicklow - Arklow Bank Wind Park Phase 2. We also have plans to progress projects at Braymore Point and in the Celtic Sea.

SSE are proud to have been a Principal Partner for COP26 – the 26th United Nations Climate Change Conference of the Parties – where world leaders sought a more ambitious climate change agreement. We look forward to continuing to work with the UK government and other stakeholders to support the delivery of a successful and impactful COP.

SSE RESPONSE

We welcome the consultation made by EirGrid and SONI and have provided responses to each of the questions below. As a significant producer of renewable generation, it is a priority for us to ensure that the DS3 System Services are optimised to meet the target of a 70% RES-E by 2030. Given the short and medium term challenges of supporting this increase, such as balancing a variety of power sources and decreasing risks to supply, we recognise the key role that system services play in maintaining the resilience of the power system.

We would like to indicate at the outset that presently there are ongoing consultations surrounding the future of the current DS3 System Services, which will end in 2024, to be replaced by future arrangements. Thus, it would be our recommendation that continued erosion of the value of existing contracts, through these proposed measures, should rather be refocused on the creation of appropriate investment signals and framework needed to encourage efficient market entry and exit signals for the provision of system services post-2024. Entry of new system services providers will also address the challenge highlighted above, of meeting increased renewables penetration.

It is important that any proposals to modify the existing arrangements are supported by sufficiently robust analysis and justification. In SSE's view the consultation process does not provide an adequate impact assessment to set out how these changes will affect revenues or volumes for system services providers. This is regrettable and impacts how we have responded to these proposals.

Q1: DO YOU HAVE ANY COMMENTS ON THE PROPOSAL TO REDUCE THE THRESHOLD USED TO DETERMINE WHEN TO PERFORMANCE MONITOR FFR, POR, SOR AND TOR1?

As outlined in the paper, the proposal intends to reduce the threshold to performance monitor FFR from 1 MW to 0.2 MW, and POR, SOR and TOR1 from 1 MW to 0.5 MW. This lower metric is being proposed due to the higher resolution of data being available for the performance assessment.

We acknowledge that in the TSO's view, this reduces risk of becoming Data Poor for smaller units, and we therefore offer no objection to the TSO's proposal to reduce the thresholds for assessment.

However, we feel that the TSOs are missing the bigger issue in relation to units being Data Poor. In SSE's view there is sufficient testing carried out by units to demonstrate capability coupled with significant data resolution available to the TSO. We believe that the market would be better served if the TSO would consider the data it already has at its disposal prior to placing a unit in the Data Poor category. For example, out-of-merit thermal plants and peaking plants by their nature are not synchronised as often as must-run plants. They can, and do, fall foul of the Data Poor scalar solely because there isn't a sufficiently deep frequency dip during their synchronisation. Similarly, a wind farm can only provide reserve when actively dispatched down and enabled by the TSO, which is not always the case. In both instances the units have made themselves available for service provision but were not called upon. What is particularly concerning however is the many instances where the units have provided a response to an event between 49.7 Hz & 49.8 Hz but that these events are not officially assessed despite high resolution data being available.

In summary it is SSE's view that the TSOs should consider all potentially relevant data available regarding response of such units prior to placing them in the Data Poor category. It is also our view that the continued use of the Performance Test process for units that would otherwise have sufficiently robust data to demonstrate performance is an inefficient allocation of resources which also affects the attractiveness of this market for future investment.

We would also welcome clarity of how this proposal may impact the new DS3 System Services arrangements post-2024. In line with the vision of a 75% SNSP increase, the TSOs should be increasing efforts to encourage new system services providers, yet it is our view that the current framework acts as a

deterrent and can negatively impact a new or existing Providing Unit's revenue and associated business cases.

Q2: DO YOU HAVE ANY COMMENTS ON THE PROPOSAL TO CHANGE THE METHOD OF ASSESSMENT FOR THE RAMPING MARGIN PRODUCTS?

We understand that this proposal from the TSO is suggests using the RM1 Monthly Scaling Factor (K_m) for ramping assessment, to also be applied to TOR2, RRS, RM3, RM8 and RRD. This will be based on a Providing Unit's ability to follow Dispatch Instructions (DI). How the K_m will be applied to the Providing Unit will be determined by the monthly Ramping Margin Performance Assessment Percentage (RPP).

We agree that the current fail-sync process is an inadequate method of assessment and does not provide a true reflection of a unit's performance. In principle, it makes sense to use publicly available market data to monitor these services.

Q3: DO YOU HAVE ANY ON THE PROPOSALS TO MODIFY THE PERFORMANCE ASSESSMENT OF THE POR SERVICE?

Our interpretation of this proposal is that Performance Assessment of POR will be amended to align with the assessment methodology of SOR and TOR. This would mean that POR assessment would now use an average of the POR timeframe (5-15 seconds).

As mentioned in our pre-amble, it is important to receive clarity as to how this proposal may impact the provision of POR over the whole market, i.e. impact to volumes and revenues, since no impact assessment or justification for the change has been sufficiently outlined.

Q4: DO YOU HAVE ANY COMMENTS ON THE MINOR MODIFICATIONS PROPOSED TO SECTIONS 5.25 AND 5.26?

It is our understanding that Figure 9 of the Protocol is proposed to be removed due to inaccurate representation of a high-level business process flow chart for the Performance Scalar process. Upon submission of an application for a Performance Test, the Providing Unit will be assessed by the TSO: specifics for the test will be agreed on a case-by-case basis within TSO standard processes. Depending on the TSO assessment, the Performance Scalar can be reset to 1 and month 'M' to 0.

For section 5.25: We have no further comments other than what has been set out in our response to question 1 in respect of seeking to use existing data to reduce the need for testing.

For section 5.26: SSE offers no objection to the proposed rewording and removal of Figure 9. SSE accepts that the new wording potentially provides the TSOs with a more flexible re-testing framework, yet we are concerned with the lack of transparency afforded to market participants as a result of failure to set out how the new process will function. It is also our view that Performance Tests should only be conducted by exception, where capability may have changed. In addition, this proposal is likely to lead to overburdened TSO resources, where testing is managed via direct request, carrying risk of creating a backlog of testing if the TSO is unable to facilitate each request in a timely manner.

We would like to re-iterate points made in our previous protocol consultation responses on this Performance Test. In order for any service provider to contract with the TSO, it is necessary that the unit has a Grid Code Compliance Certificate. A unit can only achieve this once rigorous testing of all control modes and functions are deemed satisfactory – this includes Reserve provision and Frequency Response. In addition, any prospective service provider must undertake a supplementary Operating Reserves test with the TSO which again must be deemed satisfactory before finally being able to contract for reserve services. The results of these certificates and initial tests do not largely change for a unit, except in specific circumstances where unit capabilities may have changed. In our view, Performance Tests should be used solely for the purpose of re-establishing capability after a modification at site or some other reason where capability may have changed. The Performance Test should **not** be used in circumstances where ample evidence is available for service provision for frequency dips occurring above 49.7 Hz or outside the current 12 month time horizon. Subjecting a unit to the Data Poor scalar when this evidence is available, at high resolution, appears to be completely disproportionate, and an inefficient use of TSO resources. As mentioned above, continual testing is costly for both participants and TSOs. It is worth outlining below, some of the costs associated with undertaking a Performance test:

- TSO Generator Testing team resources (in short supply)
    - This is particularly relevant given influx of new wind/solar RESS projects going through Grid Code testing, as well as new prospective system service providers undertaking their own testing before contracting.
- OEM Engineering resources (for testing & reporting)
- Fuel costs, if applicable (considerable for thermal plant)
- Out of market testing (lost generation/lost revenue)
- Scheduling issues: Office hour testing + wind availability + localised system constraints

It is also worth noting that shortly after the TSOs introduced this Performance Test, a system wide refreshing of the scalars was applied to the wind generators providing POR, SOR and TOR1. This was welcomed at the time yet subsequently, windfarms are falling foul of the Data Poor scalar again for these services. Inexplicably, FFR was omitted from this refresh so units which have not been afforded the opportunity to demonstrate capability have been penalised.

Further consideration – performance scalars

The current Dynamic Time Scaling Factor V_m results in any performance incident impacting a service providers revenue for a total of 5 months. The impact of a single performance incident results in a reduction in system services revenue of up to 60% of revenues over this period. SSE is of the view that this approach is overly penal and fails to provide an adequate and proportional signal to improve performance.

We request the TSOs review the weighting of this scaling factor, particularly with a view to reducing its impact in months 2 and beyond. This would allow the retention of the incentive to perform as required but also reward and incentivise service providers appropriately for continually improving on their performance after such a performance incident.

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15th April 2022

Response to Consultation on DS3 System Services Protocol Document

Cool Planet / Powerhouse welcome the opportunity to provide feedback on the DS3 Protocol. We hope you find our response helpful and constructive, and look forward to hearing from you in due course.

Mark Gormley
Senior Manager - Markets and Development

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Question 1: Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?

We recognise that the intention of the proposed amendment is to reduce the number of units falling into the Data Poor Performance Scalar assessment category. However, it must be noted that while the proposed change will result in a reduction in the number of units being classified as Data Poor, the proposed changes alone do not fully address the issue.

To address the crux of this issue one must look at the underlying reasons why units are being classified as data poor. For FFR, POR, SOR and TOR1 the issue is primarily units are not being assessed by the System Operator following an event due to not being contractually required to deliver a volume greater than the 1MW threshold.

There are multiple technical factors which feed into this calculated requirement. This includes the unit specific contracted volume, the nature of response provided and the reserve trigger. The most importantly parameter however which determines the required volume of a service, and thus if a performance assessment is conducted is the characteristics of the Frequency Event itself.

If the Frequency Event Nadir drops just below 49.7Hz, a characteristic which is quite common on the current system, and the time taken to recover the system frequency is short, then the average requirement for small units will be low. The existing assessment methodology for FFR, SOR and TOR1, and the proposed methodology for POR assess the average provision from the unit against the average requirement across the service period.

In the vast majority of system events in recent years, the transient is arrested in a sub 5 second timeframe and system frequency recovered to Nominal Frequency shortly thereafter. System events where frequency falls below 49.5Hz, where most units are required to provide a larger response are rare, and in many cases, frequency has returned to nominal the within the POR timeframe. In such cases a small unit, particularly those with a larger reserve trigger may be expected to deliver an instantaneous response which is greater than 1MW but an average response across the product period of a value much lower than 0.5MW.

We understand that the proposed reduction in the performance monitoring threshold will assist a subset of smaller units being assessed and thus avoiding becoming data poor. We are therefore supportive of the proposal to reduce this threshold from 1 MW to 0.5 MW for POR, SOR, and TOR1, but in turn believe the System Operator should reduce the minimal contracted volume to align with this value.

In the case of the FFR service, as the Expected FFR Response and the applicable tolerance are linked as per section 5.14.1.2 of the protocol, at low levels of Expected FFR response the tolerance becomes 50% of the Expected FFR Response. Therefore, reducing the performance monitoring threshold from 1 MW to 0.2 MW would also reduce the minimum tolerance applicable for FFR from 0.5 MW to 0.1 MW. As such, we do not support the proposal to reduce the FFR threshold to 0.2 MW. The System Operator have not provided sufficient rationale to support this proposal for FFR and as such we believe FFR tolerance should be set at 0.5MW in line with the proposal for POR, SOR and TOR1.

Notwithstanding the above points, we note that the System Operators proposed changes to section 5.25 and 5.26 of the protocol document includes plans to remove references to the Data Poor Performance Scalar business process illustrated in section 5.25 and includes the addition of replacement wording to generic text regarding an undefined “TSO standard processes” for unit testing.

The current Performance Scalar High Level Business Process outlined in figure 9, allows for data from transient events where the system frequency fell below 49.75Hz in the past 3 years be considered and pending sufficient performance being demonstrated, the unit not requiring retesting. The unit would in such circumstances be deemed data rich and thus not be impacted by the data poor performance scalar.

To address the crux of the data poor issue for small unit's the System Operator needs to acknowledge that small units do respond to events which may not be classed as Frequency Events where a nadir of <49.7Hz is measured, or where the units average requirement for the service was <0.5MW due to the nadir just going under 49.7Hz or the recovery characteristic of the event resulting in a low average requirement.

To avoid needless, costly and time-consuming retesting of sites, the System Operator need to adapt the process outlined in section 5.25 instead or removing it. The adapted review should consider the units instantaneous provision of the services, accounting for the speed of response and instantaneous MW provision and consider whether the unit performed as expected, irrespective of the average requirement used for regular performance monitoring.

Question 2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

While we acknowledge that the fail-sync process currently employed is not an adequate method of assessment for the Ramping Margin services, we do not support the proposed amendments. Ramping Margin 1 is defined is defined in the DS3 System Services Agreement as

"The increased MW Output and/or MW Reduction that a Providing Unit can provide to the Company within one hour of the Company issuing a Dispatch Instruction to a Service Provider and that the Providing Unit can maintain for a further two hours after the one hour period has elapsed. It is limited by the lowest Availability in that three hour period."

It is clear from this definition that that issue and effective time of the dispatch instruction are key components of the service, as is defined and therefore need to be accounted for in the assessment methodology. Dispatch instructions are not always issued on the hour, nor the half hour and very few units in the market have linear ramping profiles. As such the proposed methodology is wholly inappropriate for the assessment of these services as defined in the Agreement.

The definitions of the RM3 and RM8 services are aligned with the above while TOR2 is defined in the EirGrid and SONI Grid Codes as *"the additional MW output (and/or reduction in Demand) required compared to the pre-incident output (or Demand) which is fully available and sustainable over the period from 5 minutes to 20 minutes following an Event."*

We acknowledge the reasons why TOR2 is perhaps assessed aligned with Ramping margin and not Grid Code in terms of performance monitoring and support the System Operators efforts to align the measurement metrics used for the performance monitoring of ramping services. However we do not see how TOR2 could be fairly assessed using the methodology proposed.

We believe it is imperative that the performance assessment methodology reflects the definition of the system services products. As such we cannot support a proposal which goes against this fundamental principle, nor a proposal which exposes service providers to an unfair and unrepresentative assessment.

Question 3: Do you have any comments on the proposals to modify the performance assessment of the POR service?

While we support the proposed amendment to modify the performance assessment of the POR service to an average value aligned with the SOR and TOR1 services, we believe the opportunity should also be taken to remove the POR Inertia Credit and POR Governor Droop Multiplier as part of the proposed changes. We believe it is important that all technologies are contracted, scheduled, performance monitored and remunerated for provision of services in a manner which is fair and balanced, and this is currently not the case for the POR service.

Under the current protocol arrangements some providers of the POR service are awarded a POR Inertia Credit and POR Governor Droop Multiplier as part of their performance assessment. Both are legacy arrangements which are no longer appropriate nor applicable, particularly when moving to an assessment based on averaged provision over the POR period.

Governor Droop multipliers can be traced back to 2011, when they were introduced to account for the physical time delays in the reaction of some types of Generating Unit to Frequency changes, during the POR Period. This is outlined in section 2.2 of the following document. Operating Reserve Agreed Testing and Monitoring Procedure June 2011).

Similarly, the POR inertia credit can be traced back to work conducted by the Joint Grid Code Review Panel (JCGRP) in 2015 where it was decided that the POR Inertia credit should be introduced to account for the initial inertial response being delivered by synchronous generating units in advance of the POR timeframe. In the former units are being assessed for a lower requirement than would otherwise be expected, while in the later the units are being credited for provision of energy at a time in advance of the defined period and remunerated and scheduled separately via the SIR and FFR services.

Given the System Operators proposal to change the POR assessment method from a nadir based assessment to an assessment of the average response of a unit over the entire POR period, it would appear logical that both the POR Inertia Credit and POR Governor Droop Multiplier are removed in conjunction with the proposed change.

Question 4: Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

We do not support the proposed modifications made to sections 5.25 and 5.26 within the marked-up version of DS3 Protocol version 4.0. Primarily our concerns relate to the removal of reference to the Data Poor Performance Scalar business process, illustrated in figure 9 as outlined in our response to question 1 above. We believe that it is wholly inappropriate to remove this process and simply replace it with reference to undefined “TSO standard processes”.

We strongly believe that an adapted version of this process taking account of unit performance data in instances where the unit responded to a transient, but where that performance was not assessed by the System Operator, either because of the nadir being insufficient to meet the defined Frequency event assessment threshold, or the average service requirement across the product period being lower than the unit assessment threshold due to system frequency recovering quickly be utilised.

An assessment of this data would in many cases prove the unit responded adequately and would have passed an assessment had the transient characteristics post unit response been different. Doing so would reduce workload for the System Operator in scheduling further testing and also save market participants valuable time, money and resources needlessly scheduling tests, retesting units, writing test reports and loosing revenue by being unfairly deemed data poor.

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Date Submitted: 15.04.2022 - 1:26pm

Observations:

Q1. Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?

ESI is in favour of this proposed change but in addition to this we ask the TSO to consider additional alternative methods to prevent a unit from going data poor or to reset the data poor scalar (particularly for OR services). The proposed change in threshold may help but it may not necessarily prevent providing units going data poor (particularly for longer term services) because longer events are becoming less frequent. One potential fix could be for ESPS providing units to request that the ESPS is switched to a mode with a smaller trigger deadband & larger trajectory in order to increase the number of performance incidents to prevent or reset the data poor scalar.

In addition to the response to this question, ESI would also like to bring Eirgrid & SONI to the attention of the "ESI General Feedback" tab in the attached document which contains additional feedback in respect ot the DS3 protocol document that should be carefully considered by the TSO.

Q2. : Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

ESI is generally in favour of this proposed change however assurances should be made with respect to:
1) Inclusion of system frequency deviations due to time correction. e.g. prolonged periods where target system frequency is above 50Hz, for a large unit, could result in consistent under provision, thus could negatively impact RM performance assessment.
2) Further clarity is needed for ESPS units, where under current "pre-agreed charging" conditions, units are allowed to deviate from their 0MW dispatch position for the purpose of charging, again this could negatively impact RM performance assessment.

In addition to the response to this question, ESI would also like to bring Eirgrid & SONI to the attention of the "ESI General Feedback" tab in the attached document which contains additional feedback in respect ot the DS3 protocol document that should be carefully considered by the TSO.

Q3. Do you have any comments on the proposals to modify the performance assessment of the POR service?

ESI is in favour of this proposed change.

In addition to the response to this question, ESI would also like to bring Eirgrid & SONI to the attention of the "ESI General Feedback" tab in the attached document which contains additional feedback in respect ot the DS3 protocol document that should be carefully considered by the TSO.

Q4. Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

ESI is in favour of the changes in 5.25 related to the changing of minimum threshold for the purpose of assessing frequency events as per Question 1 of this consultation.

With respect to the removal of "Figure 9 Data Poor Performance Scalar High Level Business Process Flow Chart", we have concerns that removal of this chart from the protocol document only brings further ambiguity. These processes should be clearly defined and any changes to these processes should be consulted with industry. If it is proposed that this chart is removed from the protocol document the system operator should refer to specific documents in the protocol document (not general terms like "TSO standard processes" which was added to 5.25) and share any proposed performance testing process documents with industry ahead of the next DS3 Protocol consultation. Also see response to question 1 and general feedback in the attached excel file, particularly item 11 and 12 for consideration.

For 5.26, the modifications proposed further generalise the Performance Testing process and bring no additional clarity. The need for clarification is noted by the TSO in the consultation paper where it is also stated this will be addressed in the next DS3 Protocol consultation. However, the TSO proposed in the consultation Information Session that this would be addressed through a separate document to the DS3 Protocol. Any changes that impact industry should be consulted with industry.

In addition to the response to this question, ESI would also like to bring Eirgrid & SONI to the attention of the "ESI General Feedback" tab in the attached document which contains additional feedback in respect ot the DS3 protocol document that should be carefully considered by the TSO.

Documents Attached:

EGRD-C15-DS322-2-2878 - DS3 Protocol Document ESI Feedback 14.04.22.xlsx

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Boundaries Captured on Map: No

Unique Reference Number: EGRD-C15-DS322-1
Submission: DS3 System Services Protocol Consultation 2022

Author: Statkraft
Date Created: 13.04.2022 - 3:04pm

Consultation:
DS3 System Services Protocol Consultation

Status: Submitted
Date Submitted: 13.04.2022 - 3:17pm

Observations:

Q1. Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?

Statkraft welcomes and are in favour of this change.

Q2. : Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

Statkraft are of the view that the original performance methodology is broadly not fit for purpose and welcome this new change, however assurances should be made with respect to:

1. Inclusion of system frequency deviations due to time correction. E.g. prolonged periods where target system frequency is above 50Hz, could result in consistent under provision from a unit, thus negatively affecting their performance."
2. Further clarity is needed for ESPS units, where under current pre-agreed charging conditions, units are allowed to deviate from their 0MW dispatch position for the purpose of charging and how the proposed methodology will affect their performance scalars.

Q3. Do you have any comments on the proposals to modify the performance assessment of the POR service?

Statkraft welcomes and are in favour of this change.

Q4. Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

- Statkraft welcome and are in favour of the changes in 5.25 related to the changing of minimum threshold for the purpose of assessing frequency events as per Question 1 of this consultation, except where TSO says "specifics will be decided and agreed on a case by case basis within TSO standard processes".
- For 5.26, the modifications proposed further generalise the Performance Testing process and provide no additional clarity whatsoever. The need for clarification is noted by the TSO in the consultation paper where it is also stated this will be addressed in the next DS3 Protocol consultation. However, the TSO proposed in the consultation Information Session that this would be addressed through a separate document to the DS3 Protocol. Can the TSO confirm:
    1. Which of the aforementioned approaches will be taken by the TSO to clarify the Performance Testing process?
    2. Why the lack of clarity on Performance Testing was not considered as part of this DS3 Protocol consultation?
- Future clarification from the TSO on Performance Testing must outline:

1. The steps, mechanisms and criteria that can be used to reset the Data Poor scalar outside of a dedicated Performance Test.
2. How a previously approved compliance test report can be used to reset the Data Poor scalar as well as the relevant dates from which the reset will apply (e.g. from date of test completion, date of Data Poor reset request etc).
3. How non-chargeable event data can be used to reset the Data Poor scalar?
4. How an achieved response greater than 0.5 MW (POR-TOR1), or 0.2 MW(FFR), with an expected response less than 0.5 MW (POR-TOR1), or 0.2 MW(FFR),can be used to reset the Data Poor scalar?
5. What consideration is given to resource availability in the period between a request for a Performance Test and Performance Test completion? e.g. wind farm units that fall Data Poor in the summer period where windy days are uncommon.

Documents Attached: No
Boundaries Captured on Map: No

Energy for generations

ESB Generation and Trading's Response to Consultation on DS3 System Services Protocol Document

12/04/2022

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1. INTRODUCTION

ESB Generation and Trading (GT) welcomes the opportunity to respond to the Transmission System Operators (TSOs) consultation paper on the DS3 System Services Protocol Document. The consultation paper consults on the three proposed changes; (1) lower Threshold for Performance Monitoring of FFR, POR, SOR and TOR1, (2) a new Ramping Margin Performance Assessment methodology revision, and (3) a revised Method of Performance Assessment of Primary Operating Reserve (POR).

ESB GT's response is laid out into two sections; the first is an executive summary of ESB GT's response to the Consultation Paper and the second section lists ESB GT's comments on the RAs proposed decisions (SEM-21-027).

2. EXECUTIVE SUMMARY

At a high level ESB GT agrees with the three proposals set out in the consultation paper. The three proposals shall help mitigate the data poor instances of some generators however further consideration is required alongside these proposals.

ESB GT agrees that the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1 will go some way to assisting data poor units, however, Mod_02_22 should also be progressed in order to assist those data poor assets that are not addressed with the proposed changes in this consultation paper.

The second proposal to change the method of assessment for the Ramping Margin products highlights a major issue for industry that needs to be addressed. The inability of the TSO's systems to incorporate new technologies like Sync Comps and BESS needs to be addressed as soon as possible in order to maximise the full benefits that these technologies offer. Even though the issue is with the TSOs systems, the current approach to facilitating these technologies[1] appears to place all the risk on the generator and investor.

Another item that may need to be clarified is how a hybrid generator, as provided for under the recent RESS2 Terms and Conditions[2], and hybrid connection, as consulted upon in the ORESS2 consultation[3], can qualifying and participate in the DS3 System Services arrangements? This is an item that will need to be addressed soon as it can be seen from the recent ECP rounds[4] that more hybrid projects are being qualified and seeking to enter the market.

[1] https://www.eirgridgroup.com/site-files/library/EirGrid/Integration-of-Batteries-Implementation-Note.pdf
[2] https://www.gov.ie/en/publication/7f0bb-renewable-electricity-support-scheme-2-ress-2/
[3] Offshore Wind Phase Two Consultation
[4] https://www.eirgridgroup.com/site-files/library/EirGrid/2021-Batch-(ECP-2.2)-Results-Joint-SO-Publication_November-2021_Final.pdf

3. RESPONSE TO QUESTIONS

In this section, ESB GT has provided its responses to the questions in the consultation paper.

Question 1: Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?

ESB GT understands that the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1 is principally to address the degree to which some service providers are impacted by being designated as data poor. Further it is accepted that the TSOs, acting prudentially, require assurance through the DS3 framework that the contract levels of service provision will be delivered when required. As such ESB GT acknowledges the challenges faced by the performance process within the number of providers who are deemed data poor. However, it is considered that this is principally a function of the low number of system frequency events on the system which in itself is positive. The proposal to reduce the MW threshold for an event to be assessable under the framework for FFR, POR SOR and TOR1 will on the margins result in an increase in the number of assessed events. However, it is considered that there will remain a significant number of units with low running hours for whom being data poor will remain an issue. ESB GT notes that for other services such as secondary fuel and black start provision there is a regime in place where the TSOs have the facility to request a test of the providers capability at the TSO's expense. One option to address the issue of service providers who are data poor could be for the TSOs to have the facility to request a test of the service providers capability with the cost of a successful test being recoverable by the service provider from the relevant TSO or similar mechanism as proposed under Mod_02_22. The cost of this regime, at a testing interval of 12-24 months would be relatively low in the context of the overall DS3 framework and would offer significant assurance to the TSOs and therefore would be to the benefit of the end user. As discussed in Mod_02_22 workshop, the issue of units being data poor is likely to become an increasingly prevalent as the level of renewables on the system increases the running of conventional units and the role of non-synchronous providers increases.

Question 2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

For assets that are allowed to participant fully in the balancing market interface and scheduling tools the proposed change to the method of assessment for the Ramping Margin products seems an appropriate mechanism. However, for assets, like Batteries and Sync Comps, that are not allowed to

submit Negative Physical Notifications, and potentially not fully included in the TSOs' scheduling and dispatch tool, the proposed change to the method of assessment for the Ramping Margin products could lead to such assets only ever being data poor. Until such assets are fully incorporated and utilised in the Scheduling and Dispatch tools (and have DQ associated to the assets) the current approach should continue to apply to them. Currently there isn't enough information on the BESS Implementation Guidance note[5] to determine the impact of the proposed change to the method of assessment for the Ramping Margin products on all technologies. As a result, ESB GT believes it may be appropriate to apply (1) the proposed change to conventional assets only and (2) retain the existing methodology for assets like Sync Comps and BESS that are not yet capable of being implemented into the TSOs systems. Further clarity on BESS and sync comp participation/implementation is required before a participant can determine the impact this proposal may have.

In terms of using the settlement data it is not clear how the % values in the "Tolerance level = max(5% of DQ, 2% of Registered Capacity)" have been selected. It is not clear from the consultation paper whether changes in frequency are adequately covered under the proposed tolerance level. In order to determine if the above threshold is acceptable greater evidence is required.

Additional to the TSO IT issues raised above for the BESS, the impact of Mod_20_21 and Mod_21_21 on this proposal needs to be carefully considered. It may be possible that due to TSO IT issues some assets are dispatched in a certain manner, but the pseudo instructions may outturn vastly different resulting in a divergence in DQ and MG.

Question 3: Do you have any comments on the proposals to modify the performance assessment of the POR service?

Considering the level of inertia scheduled on the system has decreased and frequency nadirs have begun to move closer to the time zero of the Frequency Event, ESB GT agrees that an assessment of POR based upon a nadir in a 5-15 second period is no longer appropriate and that the TSOs proposal to amending the assessment of the DS3 System Service POR service to take the form of an assessment of the average provision requirements between 5 and 15 seconds is more appropriate.

Question 4: Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

[5] https://www.eirgridgroup.com/site-files/library/EirGrid/Integration-of-Batteries-Implementation-Note.pdf

Under 5.8.2.1 it states “*Calculation of Expected Provision of POR*” however Expected Provision of POR doesn’t appear to be a glossary definition.

127 Baggot Street Lwr.
Dublin, D02 F634
14th of April 2022

RE:DS3 System Services Consultation – Protocol Documents

EAI welcomes the opportunity to respond to the TSOs' consultation on proposed changes to the existing DS3 Protocol Document (V3).

The DS3 framework is a fundamental and increasingly vital component of the SEM arrangements and therefore any amendments to the framework have potentially significant impacts on market participants. While we recognise the need for the DS3 framework to evolve within the regulatory and market context, and the underlying system needs, we highlight that, for many market participants (and service providers), anticipated DS3 revenues are intrinsically linked to their positions taken in the capacity and energy markets. Contracted positions taken in the capacity markets are mainly in the T-4 timeframe, i.e., 4 years ahead of delivery. For the overall SEM arrangements to operate efficiently, market participants, both existing and new, must have confidence in the stability of the DS3 framework, and to normal commercial governance practices.

At a high-level, there is a consensus amongst our membership that consultations relating to changes to the Protocol document requires further analysis from the TSOs that supports the changes and sets out the potential impact on system services providers for all proposed changes. In this regard, it is essential that very careful consideration is given to the final tolerances to be used within the ramping proposal with regard to impact on service providers. We acknowledge, on the basis of such previous impact assessment that the POR performance will continue to be assessed taking into account the Inertial Response of the Providing Unit.

The remainder of our response will address the four questions posed in the consultation and a further point for your consideration.

Question 1: Do you have any comments on the proposal to reduce the threshold used to determine when to performance monitor FFR, POR, SOR and TOR1?

EAI has no objections to the reduction in the MW thresholds as proposed by the TSO (to 0.5MW for OR and 0.2MW for FFR).

However, this proposal fails to address the wider issue of how often the assessment is currently applied to all units resulting in a high incidence of units falling into data poor scenarios and, consequently, the need for further testing. The TSO should give further consideration to how the assessment could be improved to reduce the need for further testing, for example by using data already available to the TSO such as changing the time period for the assessment from 12 months to 24 months.

Members are acutely aware that there are less data poor events being recorded as a result of improving performance. It should be acknowledged that the reduced incidence of data poor events at the service provider level, and the associated benefits for the service provider, is a direct consequence of the collective beneficial contribution resulting from the desired good behaviour from all providers in bringing the required stability to the system. Any increase in the stringency of the assessment needs to be supported by considerable analysis so that there are no unintended consequences. The TSOs should be aware that providers have contracted based on the existing set of parameters and any change may result in a change in the contracted volume.

One option to address the issue of units which are data poor, which would build on the proposal above, is to extend the period after a service provider is deemed to be data poor from 12 to 24 months, this is discussed further below.

The cost of this regime, at a testing interval of 12-24 months would be relatively low in the context of the overall DS3 framework and would offer significant assurance to the TSOs and therefore the end user. To correct the current mis-alignment of the reward for good behaviour incentive, and to balance/compromise with what currently exists, we propose that the service provider would decide at the end of the 24 month period whether to test the unit or enter the data poor decay multiplier – that the cost of a failed test would be for the service provider's account – and the cost of a successful test outcome would be for the System Operator. The test would be for an agreed set of services, depending on the asset and its performance, with not every service needing to be tested.

In conclusion, EAI seeks clarification on how the TSO's intend to assess the data poor issue and mitigate the risk of service providers finding themselves in a data poor scenario by virtue of them behaving as required, which would appear to be counterintuitive. Any proposed changes should acknowledge good performance and should not be undermined by inappropriate unintended market signals from the currently inverted market design of the data poor mechanism. We have proposed above an extension of the time period over which performance information should be submitted and proposals on how testing costs should be allocated. We also propose that the data poor signal is redesigned so as to target those providers who are not contributing to maintain the relevant performance required for those reserve services. We ask for further discussion in an industry forum of these suggestions before finalising the updated version of the Protocol.

Question 2: Do you have any comments on the proposal to change the method of assessment for the Ramping Margin products?

EAI is of the view that full consideration of these proposed changes to the assessment methodology is difficult without the benefit of any analysis, albeit that a move away from a straight "fail sync" assessment appears positive in principle. Analysis of the impact on the service provider and a demonstration that the market systems will be able to facilitate these changes is currently lacking from the proposals.

EAI proposes that the TSOs assess the financial and system impacts for service providers to ensure that this proposed change does not adversely impact existing service providers.

EAI would also ask the TSOs to further clarify the proposed tolerance levels, including an explanation/demonstration as to their appropriateness, in advance of taking a decision on this issue. EAI feel that more consideration needs to be taken to ensure units are not penalised for following the technical characteristics of their units e.g., droop. In addition, there are times when the unit cannot follow the technical characteristics and the TSO has been notified e.g., TOD changes, technical parameters impairment and testing, these types of events also need to be considered. All of the above issues could be addressed in our proposed industry workshop.

Question 3: Do you have any comments on the proposals to modify the performance assessment of the POR service?

EAI is generally supportive of this proposal to amend the methodology for the performance assessment of POR.

Further clarity is required from the TSO in relation to the intent of these proposals. In particular there is some confusion as to how this change incorporates the Inertial Response and Inertial Response Calculation Tolerance. We believe the intention is to apply the calculated Inertial Credit, which is calculated at the time at which the Maximum POR Frequency Deviation occurs in the POR period, to the final Expected POR value. The wording in the Protocol needs to be revised to make this clear so that the value of inertial credit response is appropriately recognised and remunerated.

EAI is also concerned that the TSOs sought to remove the Inertial Credit in the previous consultation on the Protocol and while it is included in this version, we wish to highlight the technical reasons as to why this POR Inertial credit still exists. It is EAI's view that no changes to Inertial credit should be proposed, in the future, without a complete and robust assessment of the impact to both the TSO's and services providers. In carrying out any assessment it is vital that the reasons for adopting the Inertial Credit are well understood.

Question 4: Do you have any comments on the minor modifications proposed to sections 5.25 and 5.26?

EAI is of the view that this proposal appears to result in a reduction of transparency. Whilst we understand the TSOs' concerns in relation to data poor EAI is not convinced that this proposal achieves that objective.

EAI would prefer to see the performance testing process fixed and remaining in the Protocol where consultation and appropriate governance are in place, such that it was fit for purpose and suitably transparent.

Other considerations

EAI asks that the current Dynamic Time Scaling Factor V_m be reviewed to ensure that it remains fit for purpose and provides appropriate signals to service providers to improve their performance. The current mechanism results in any performance incident impacting a service provider's revenue for a total of 5 months, the impact of a single performance incident has the potential to reduce system services revenue significantly over this 5 month period. Whilst EAI understands the need to incentivise good performance we are of the view that this is overly penal on service providers and undermines the value to the system of good performance by a unit in the months immediately after the month in which a poor performance occurred.

We request the TSOs review the weighting of this scaling factor, particularly with a view to reducing its impact in months 2 and beyond. This would allow the retention of the incentive to perform as required but would also reward and incentivise service providers appropriately for continually improving on their performance after such a performance incident. Consideration should also be given to linking the number of events in the month being assessed and the proportion of events passed to the triggering of a scalar.

Conclusion

EAI welcome this consultation and the information that has been provided by the TSO in relation to the future evolution of this programme. Our response has highlighted the need for analysis that supports the changes and sets out the potential impact on system services providers for all proposed changes.

We are available to discuss this response with you in greater detail and would welcome a further industry workshop to discuss our concerns above before finalising this updated version of the Protocol. We believe that the above issues warrant resolving and inclusion in this year's Protocol. Please do not hesitate to get in touch if you need any clarifications or further information.

Yours Sincerely,
Stephen Douglas
Senior Energy Policy Advisor, Electricity Association of Irela