



EirGrid and SONI
Implementation Proposal:
DS3 System Services
Tariff Rate Adjustment

9 August 2021

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2 Introduction & Background

The DS3 System Services arrangements have been designed to facilitate new and existing participants to provide services required to facilitate the maintenance of a resilient power system when up to 75% of demand is met by non-synchronous technologies. Since the implementation of interim arrangements in 2016¹, per forecast there has been a steady rise in expenditure with regard to the previous Harmonised Ancillary Services (HAS) arrangements. This expenditure increase, and in particular the impact of varying levels of wind, demand and connection rates on the cost of system services (including the associated risk of exceeding the budget glide-path set by the SEM Committee in 2017) has been highlighted to industry stakeholders, including in a publication on the TSOs' websites in September 2020².

SEM Committee Decision SEM-17-080 outlines the measures to be taken in the event that the annual expenditure is forecast to exceed the €235 million design guideline. In that context, EirGrid and SONI ("the TSOs") submitted a report to Regulatory Authorities (RAs) in June 2020 highlighting the trend in expenditure that would ensue as a result of the aforementioned increase in volumes. Following correspondence from the RAs in July 2020, directing that "*(i)n the event that a review (of the tariff rates) is required... the TSOs (should) commence such a review as soon as is practicable*", the TSOs continued to monitor the expenditure forecast and, in response to the 2022 forecast cost exceeding €235 million, the TSOs published a consultation paper proposing options to address this risk. The consultation paper showed the significant increase in DS3 System Services Expenditure driven by the high volumes of fast acting technologies forecast to provide system services at future procurement gates as well as options for reducing DS3 System Services expenditure to ensure that it stays within the regulatory guideline.

In this document, we summarise the responses received to the consultation, provide clarifications where necessary, and put forward our recommendations to the RAs for approval ahead of implementation.

¹ <https://www.eirgridgroup.com/site-files/library/EirGrid/DS3-System-Services-Protocol-Interim-Arrangements.pdf>

² <http://www.eirgridgroup.com/site-files/library/EirGrid/DS3-System-Services-Expenditure-Note-16092020.pdf>

3 Context: System Services Budget

Throughout our engagements with the RAs on this topic, the regulators have repeatedly emphasised the need to stay within the €235M budgetary allowance. The TSOs acknowledge this position, which derives from the maximisation of anticipated consumer benefits with the introduction of DS3 System Services, as determined in 2014³. Thus, as part of this process, the TSOs have taken an approach which sees the glide-path value of €235M (+€20M in a high-wind year) as an upper limit; any proposals that have been put forward have not sought to increase this allowance. It is important to note this starting point when considering the responses received to the TSOs' consultation.

In that context, the TSOs note that 18 of the 23 respondents have urged a review of the €235m budgetary allowance. By way of summary, the rationale for this position included the following views:

- Sufficient changes have occurred in both the market and system since the original 2014 decision that would indicate that a review of the €235M budgetary allowance should be undertaken. This would allow for recognition of the change that has occurred in the market, as well as allowing for the changes in government policy aiming to achieve higher levels of renewable generation to 2030 and beyond.
- There needs to be clear investment signals to support the development of a system that can meet the 2030 target of 70% RES-E and ~95% SNSP (with an interim 85% SNSP target by 2025), and that a reduction in tariff rates frustrates the investment signals required to deliver on these ambitious targets.
- If 2030 decarbonisation is to be achieved, working towards the €700m to €750m DS3 expenditure cap by then, demonstrates the need to revise upwards the current €235m budget cap, or a removal of the cap in its entirety.
- The budgetary allowance was made in nominal terms at the time of decision in 2014, and therefore did not take inflation into account via an indexed annual budgetary allowance. One respondent noted that, if this were to be applied retrospectively to determine the €235M cap, this would take the balance to €249M post-2020.

The TSOs recognise respondents' concerns. Nonetheless, the TSOs acknowledge that the €235M budget is currently in place and, throughout the ongoing dialogue with the RAs, there has been no indication that the RAs would consider a re-baseline of the point at which the

³ <https://www.semcommittee.com/sites/semcommittee.com/files/media-files/SEM-14-108%20DS3%20System%20Services%20Decision%20Paper.pdf>

consumer benefit is reduced and hence there is currently no appetite to consider a revision to this value. The TSOs must therefore take the steps necessary to introduce mitigation measures per the Consultation Paper, in the absence of RA approval of a revised budgetary allowance.

We remain at the disposal of the RAs for further discussions on the appropriateness of the €235M budgetary allowance, should the SEM Committee consider it necessary to revise this budget.

4 TSOs' Consultation Paper: Three Proposed Solutions

In the consultation paper, the TSOs presented DS3 expenditure forecasts for both regular and high wind scenarios. The results of the analysis showed that due to the high volumes of fast acting technologies forecast to provide system services at future procurement gates, the regulatory guideline of €235M would be breached in either scenario should mitigation measures not be put in place. Details of expenditure related to different technologies was also discussed as well as modelling assumptions.

Given that the RAs have directed that the regulatory guideline of €235M as set out in SEM 17-080 cannot be exceeded, the TSOs outlined three options in the consultation paper to manage the budget so that expenditure does not exceed the regulatory guideline.

Option 1 proposed to reduce tariffs for FFR, POR, SOR, TOR1 and TOR2 across all System Service Providers. Based on analysis from both regular and high wind scenarios it was proposed that a 10% reduction on tariffs be imposed for every 100MW of fast acting technology that is procured in future gates.

Option 2 proposed cessation of procurement of fast acting services. The TSOs were minded not to support this position as system service providers are in some cases currently in construction or well advanced in the planning process.

Finally, **Option 3** proposed reducing both tariffs and Temporal Scarcity Scalars (TSS), given that TSSs significantly increase System Services expenditure at times when System Non Synchronous Penetration exceeds 60%.

The consultation sought general feedback on these three options, as well as asking interested parties questions on any areas that they felt the TSOs had not addressed adequately, whether the TSOs should focus on rate amendments rather than a hybrid of rates and scalars and their overall preferred approach of the three options put forward.

5 Consultation Feedback

5.1 Respondents

The consultation ran from 28 May 2021 to 2 July 2021. In total, 23 responses were received with three responses marked confidential. Non confidential responses were received from the following parties:

BGE

Bord na Mona

DRAI

Dublin Waste to Energy

EAI

EDF

Energia

ESB GT

ESI

Exergy and JBIC

Federation of Energy Response Aggregators (FERA)

Hanwha Energy

IESA

Lumcloon

Moyle

Powerhouse

SPR

SSE

Strategic Power

WEI

All non-confidential responses are attached to this recommendation paper.

5.2 Respondents' preferred option

Respondents were asked to indicate their preference of the three options posed by the TSOs. These options were reducing FFR-TOR 2 tariffs for every 100MW of additional fast acting technology procured, cessation of procurement of fast acting services or a hybrid option whereby tariffs and Temporal Scarcity Scalars could both be reduced.

Of the three options proposed, ten respondents did not support any option and, more fundamentally, did not support a reduction in current tariffs.

Eight participants considered the reduction in tariffs proposed in Option 1 to be the most suitable ("least worst") option. Only one respondent supported Option 2, to cease procurement of fast acting services, stating it would be perverse to procure more services if sufficient reserves are already in place. Many participants did not consider this a viable option given that system service providers are in some cases currently in construction or well advanced in the planning process. Three respondents favoured Option 3 to reduce Temporal Scarcity Scalars (TSSs), stating that this would also result in a less volatile more predictable annual spend.

The TSOs understand the position of the ten respondents that did not support any option presented to manage expenditure; this should be considered in the context of an overriding preference from respondents for the regulatory guideline of €235M to be re-baselined to reflect the current market, rather than the 2014 forecasts.

In relation to Option 2, the TSOs note that many prospective projects are well advanced in their development and have made financial projections based on continued procurement of system services. As part of the TSOs' future outlook programme, work is on-going in determining

system service changes required to meet 2030 targets. These will be consulted on as part of that process.

The TSOs are also not in favour of Option 3 which involves reducing the Temporal Scarcity Scalars (TSSs) as we consider the TSSs as one of the drivers to incentivise system service providers to be available at times of high levels of generation from renewable sources when system services are most scarce. Conversely, payments are reduced at times when they were being over supplied and therefore of a lesser value to the system.

5.3 Views on whether the TSOs should focus on rate reductions rather than a hybrid of rates and adjustment of Temporal Scarcity Scalars

The consultation paper showed that the reduction in spend is significantly higher for a high wind year compared with a regular or low wind year. Respondents were therefore also asked if they considered a rate reduction to be more suitable than a hybrid approach whereby Temporary Scarcity Scalars (TSSs) and Rates could be reduced.

Three respondents favour adjusting TSSs due to the fact that they suppressed volatility in payments and made annual forecasting less difficult. While the TSOs acknowledge that reducing the TSS could be an effective means for reducing payments, we consider it more important to incentivise technologies available at times when System Non Synchronous Penetration is highest. This will become especially important for 2030 targets.

5.4 Areas which participants felt that the TSOs had not addressed adequately ?

Respondents were given the opportunity to raise any additional issues that may not have been addressed as part of the consultation paper. The general themes emerging from respondents' comments included that:

- the current tariff rates should at least be maintained
- the current budget should at least rise with inflation

- an urgent review of tariffs be undertaken to increase the DS3 expenditure budget to provide investor clarity and ensure attainment of 2030 targets

While the TSOs welcome these comments by respondents for consideration by RAs, both in terms of the procurement of system services under the extant framework and in the development of future arrangements, these views are outside the scope of the current consultation given that an increase in expenditure has not been directed by the RAs. As noted in the consultation paper, the key purpose of this consultation process is to determine the optimal means for mitigating a breach of the regulatory guideline of €235M.

5.5 Additional feedback

5.5.1 Expenditure & Volumes Publications

A number of respondents suggested that there should be more information published in relation to DS3 Expenditure and volumes. The TSOs currently update a monthly report on DS3 Expenditure⁴ but in light of consultation feedback, we will endeavour to publish a more detailed report on expenditure and associated volumes in the coming months based on what is practicable.

5.5.2 Additional Scalars

In addition to proposals put forward by the TSOs, a number of respondents proposed additional measures. Two respondents proposed the introduction of CO₂ emissions limitations on contracted parties aligned with those in the capacity market, while it was also proposed that a carbon scalar be introduced that would favour low carbon emitting technologies. Another respondent proposed reducing the fast acting scalars, which significantly increase DS3

⁴ EirGrid website: http://www.eirgridgroup.com/site-files/library/EirGrid/AS-OSC-Report_2020-21.pdf

SONI website: https://www.soni.ltd.uk/media/documents/AS-OSC-Report_2020-21.pdf

expenditure for fast acting technologies, while another expressed disappointment that there was no option targeted specifically at fast acting technologies . It was also proposed to amend the current implementation of locational scalars to compensate for lost DS3 System Services revenue.

The TSOs welcome proposals received by respondents. We agree that a scalar to benefit low carbon technologies provides incentive for cleaner technologies to provide system services. However, given that the increase in system services expenditure is arising due to fast acting technologies such as storage and DSUs that already benefit from high availability and fast response scalars, the introduction of CO₂ emission-related scalars may only serve to exacerbate the issue further and the TSOs consider a reduction in spend that impacts all technologies equally to be the most suitable and fair.

One respondent suggested reducing fast acting scalars, this however would be difficult to implement given that such scalars are already agreed technical parameters in existing system services contracts.

With regard to Locational Scalars, these were introduced by CRU in the Dublin Region to incentivise generation that provides system support, both in terms of entry and exit, which is important for the long-term security of supply in the region, in the context of unprecedented levels of forecast demand growth. Given that this is a separate budget to DS3 SS Expenditure, the TSOs do not at this point consider this a viable option at present.

5.5.4 Interaction with Fixed Contracts

Several respondents requested clarity on the interaction of proposals with Fixed Contracts. There is very limited interaction with Fixed Contracts as these were already accounted for when carrying out the analysis for the consultation paper, these were also stated to be out of scope in the consultation paper. In addition it is worth noting that their TSS is defined per a TSO published agreement in May 2019⁵ and cannot be amended.

⁵ <http://www.eirgridgroup.com/site-files/library/EirGrid/Temporal-Scarcity-Scalar-values-for-Volume-Capped-Arrangements.pdf>

5.5.5 Allocation of System Service budget

A small number of respondents queried the spend on “conventional” units and implied that their DS3 revenue more than doubled since original €60M HAS budget. It is important to note that the range of technologies providing system services has significantly diversified since implementation of the current arrangements with conventional units earning a lower proportion of total revenues than before. Given the technology neutral position adopted by the TSOs, all technologies are remunerated per same criteria and bias cannot be applied towards any proven technology in a procurement gate.

5.5.3 Unduly High Cuts to Rates

Given the volatility of SNSP and the associated difficulty in accurately forecasting DS3 expenditure, a number of respondents expressed concern that system services providers could be unduly penalised should the TSOs select a reduction in rates that is too high. The TSOs acknowledge this, but must also act in the context of the explicit instruction from the RAs “to ensure expenditure remains within the limits of” the budget.

5.5.6 Implementation of K Factors

It was suggested by one respondent that implementation of K Factors be used rather than a reduction in tariffs. This however is not in line with the expenditure controls set out in SEM 17-080, in addition the TSOs consider that due to the highly variable nature of SNSP, expenditure would be too volatile and not practical for System Services tariffs this is especially true for a high wind scenario where spend could be in the region of €400M.

5.5.7 Modelling Assumptions

A small number of respondents questioned the modelling assumptions presented in the consultation paper and considered that the availability and scalars associated with fast acting technologies to be conservatively high. It was suggested that an availability of 100% was too high and that an availability in the range of 97% would be more accurate. It was also argued that performance scalars might often be less than one and that the Fast Acting Scalar for FFR of 3 would not always be attained by fast acting technologies. The TSOs welcome feedback on

modelling assumptions, however when the models were rerun with lower availability and scalar values as suggested by some respondents, this had little impact on the scale of reduction required to prevent breach of the regulatory guideline.

6 TSOs' Recommendation & Next Steps

Following the consultation period, and the comments received as part of the consultation process, the TSOs recommend that Option 1, which will see a reduction tariffs for FFR, POR, SOR, TOR1 and TOR2 across all System Service Providers, be approved by the RAs. Specifically, it is proposed that a 10% reduction on tariffs be imposed for every 100MW of fast acting technology that is procured in future gates.

The TSOs are minded to prefer this option as we consider it to be the fairest approach to all System Service Providers. The impact per 100 MW of additional fast acting technologies on the rates reductions required for all technologies is detailed in the consultation paper. It is noted that the participants that commented on the appropriateness of this Option 1 considered this to be a “least-worst” option – there was a clear preference to re-baseline the budget by increasing it to a value that is reflective of the 2022 environment (including HICP increases and in acknowledgement of the changes in the SEM).

We make ourselves available to the RAs to discuss any aspects of this recommendation, including the comments received during the consultation process, should such discussion prove useful during the decision-making process. We note the short timescales associated with this proposal and the intention to implement the revised tariff rates in time for Gate 5, meaning that these would come into effect on 1 October 2021. For the avoidance of doubt, it is the understanding of the TSOs that any delay by the RAs to approve a reduction of rates, resulting in expenditure of more than the €235m (plus €20m in a high-wind year), would not lead to such expenditure being unrecoverable by the TSOs; contrary to the suggestion of the SEM Committee in its correspondence of 23 July 2020, there is not a *“maximum (cost that) the RAs will allow the TSOs to recover through tariffs”*.

Following approval of the reduction by the RAs, an explanatory document will be published on the TSOs' websites, detailing the rationale behind any changes and other relevant information for interested parties.