



**Response by Energia to
SEMO consultation on
DS3 Enduring Tariffs and
DS3 Enduring Scalar Design**

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1. Introduction

Energia welcomes the opportunity to respond to the Single Electricity Market Operator (SEMO) consultation papers on DS3 System Services Enduring Tariffs (until at least 2019) and DS3 System Services Enduring Scalar Design. Energia has actively and constructively engaged with the RAs, TSOs, and industry in all aspects of the I-SEM project and related consultation process given the importance for everyone affected in any way by the electricity market in Ireland and Northern Ireland to ensure the new and complex I-SEM market is fit for purpose, and offers good value.

The stated intent of the TSOs to provide increased certainty to investors in DS3 services is to be commended. However the regime as outlined in the consultation papers by the TSO's unfortunately does not provide the required level of investor certainty and the reasons for its shortcomings are outlined in this response paper.

Given there are many alternative investment opportunities available to parties with international interests which have higher degrees of revenue certainty than that outlined in the consultation papers under review here for DS3, it is difficult to envisage how the required level of investment in DS3 services will occur in I-SEM if the TSO proposed regime is not modified. Without this investment, the system services frameworks will not deliver the expected benefits to consumers in terms of facilitating renewables deployment and cost savings.

Energia outline in this document their proposed amendments to the TSOs proposed regime in the hope that it will assist the RA's and TSO's in their analysis and decision making.

This response includes in Section 2 some concluding comments Energia would like to make and which we have placed at the beginning of our response given their importance. Section 3 details the key comments Energia wishes the RAs and the TSOs to note in relation to issues raised in the consultation paper, while Section 4 details specific comments on specific areas or issues. In Section 5 we attempt to outline a modification to the TSOs proposed regime and put forward arguments as to why it will better facilitate the range of desired outcomes required as part of the I-SEM market.

Please note that the comments outlined in this document are in addition to our responses to (i) the twelve questions raised by the TSOs in relation to the Enduring Tariff consultation, and (ii) the eighteen questions raised in relation to the Scalar Design. These latter documents have been completed using the templates provided by the TSOs, and are submitted along with this document to form our complete submission for this consultation process.

2. Conclusion

The stated intent of the TSOs to provide increased certainty to investors in DS3 services is to be commended. This reflects the importance that the RAs have placed on investor certainty as part of the DS3 programme. As referred to in both consultation documents, the SEM Committee's decision on the system services procurement framework (SEM-14-108) highlighted the importance of:

- Existing providers receiving clarity that they will receive appropriate remuneration; and
- New providers receiving clarity that there will be mechanisms that will allow them to make significant investment.

Enabling investors to make investment in system services provision with an appropriate level of confidence is vital for delivering benefits to consumers through lower costs and increased potential of meeting ambitious renewables targets. This then affects the ability of the system services framework to meet other aims set out by the SEMC such as providing clarity to Governments on support for 2020 targets, and meeting the duty to minimise curtailment of RES (under Article 16 of Directive 2009/EC/28).

However, the proposals put forward by the TSO lose sight of the importance of investment certainty, and in places demonstrate a lack of understanding of what 'investment certainty' actually means for commercial parties. For example, Section 4.2 of the Enduring Tariffs report is entitled 'Investment Certainty' – however, it focuses on certainty about base tariff levels, not certainty about the revenue expectations on which investment decisions are made. This confusion occurs despite the TSO earlier highlighting (in Section 2.2) the importance of revenue certainty (not tariff certainty).

We recognise that the TSOs have to consider a range of objectives in setting the system services framework. Therefore, they have to strike a balance between:

- Long-term signals for system service provision – i.e. tariffs
- Short-term signals for system service provision – i.e. temporal scarcity scalars to encourage plants to provide the service when most required. This has also the attraction of helping to control costs by targeting payments to periods in which the service is most needed.

The need for appropriate balance between short-term and long-term signals has been explored at length as part of the design of the ETA and the CRM under I-SEM.

Unfortunately, the approach taken in the TSOs' proposals on DS3 system services impact is unbalanced – because it places virtually all the emphasis on short-term signals. Although superficially attractive from a cost-control perspective, particularly when only focusing on static effects (e.g. how to get the required system services from the available capacity), this approach ignores the dynamic impacts on investment patterns. Effectively, providers are being asked to provide 'insurance' – i.e. to be there in case the TSO needs the service with limited guarantee in terms of return. Such a regime in practice is unlikely to produce the desired outcomes.

This approach seems to be based on a very narrow interpretation of SEMC information paper (SEM-17-07) which states that "tariff rates will not increase for services where there is no additional system needs and where additional investment is not required."

This approach uses scalars to make payments based on ‘hindsight’ – i.e. what was actually needed. However, investment decisions have to be made on foresight of ‘expected’ revenues, with financing typically based on ‘low’ expectations not on central or upside cases. That investment is what will then determine the plants that can respond to the short-term price signals from the scarcity scalar.

This imbalance between long-term and short-term signals in the system services market is worsened by:

- The fact that providers are facing a regulated demand for services whose value depends on level of investment in RES and level of investment by other service providers including in technical aspects such as RoCoF. Normally, there is a first mover advantage in making investment decisions to provide services. Under the proposed system services framework, first movers could be worse-off because the higher value is only achieved if enough other providers invest so that the TSOs can increase the SNSP limits.
- Impact on revenue expectations of uncertainties such as low wind years.
- Lack of opportunities to hedge the value as the market is trading with a monopsony (i.e. compared to forward trading opportunities in hedge).
- Cliff-edges in the scarcity values for DS3, compared to the patterns of scarcity prices in the energy markets as well as decisions by a monopsony (with uncertain/unknown incentives on DS3).

Given all this uncertainty, many investors are likely to look at the downside risks and only invest on the basis of revenue expectations from the base tariffs (e.g. ignoring the revenue for scalars, which would be seen as possible upside).

In such circumstances, the biggest risk for consumers is not of ‘over-paying’, rather that there is never enough investment to support increases in the SNSP limit (despite there being sufficient gaps between actual spend and the glide-path cap).

3. Key Comments

3.1 Contract Uncertainty

The proposed DS3 regime as outlined in the consultation papers fails to provide a meaningful degree of comfort in relation to revenues that may arise from DS3 services in the future, despite claiming to do exactly that. There is a four to six year contract, with what are considered low base tariff rates, and where a significant proportion of all service payments being linked to something as volatile and unpredictable as SNSP levels which participants cannot forecast accurately.

This, does not provide the appropriate level of certainty to encourage an appropriate level of investment in the provision of DS3 services needed to support further increases in the SNSP to facilitate the renewable ambitions on the island.

3.2 High SNSP level dependency of high RoCoF level.

The consultation papers fail to clearly outline the critical link between the achievement of high SNSP levels and the achievement of high RoCoF levels.

However, the reality is that there is this direct dependency as outlined in Section 6.1.3.

While the CER's Rate of Change of Frequency Project quarterly reports provide some details in relation to how the RoCoF project is progressing, it lacks significant information, is issued months in arrears, and does not provide the required level of comfort that the levels of RoCoF required for high SNSP levels will be achieved. It is imperative that additional, more up-to-date information is provided to industry about the progress and outlook towards achievement of high RoCoF and this detail should be provided accurately, monthly and in sufficient detail without delay. Otherwise, system service providers are being asked to make investment decisions with a high level of asymmetric information about future progress on RoCoF. This will discourage the investment required to support higher SNSP levels and hence higher renewables

3.3 Revenue uncertainty

In addition to the points made in Sections 3.1 and 3.2 above, there are other areas of the consultation paper which point to uncertainty for revenues from the provision of DS3 services. These factors further undermine the case for any investment in the provision of DS3 services. Such factors creating further uncertainty include:

(i) High SNSP may increase Demand: The formula for calculating SNSP has demand in the denominator. If on any day as wind levels rise, SNSP levels will rise, and increased SNSP levels are expected to suppress market prices given the tendency for wind generators to be price takers. If market prices are low (due to high SNSP levels or otherwise), it may encourage an increase in demand from various sources including recharging electric vehicles, and also battery storage units. Such an increase in demand will reduce SNSP levels, potentially suppressing DS3 payments if SNSP levels reduce below 60%. It is extremely difficult to forecast the occurrences of these events, but this will further reduce the overall amount of time that scalars are applied in I-SEM, introducing higher uncertainty of DS3 payments.

(ii) Application of the Performance Scalar: There is currently a performance scalar in operation in SEM which will continue into I-SEM. This Scalar which imposes costs on generators who are unable to fully comply with instructions from the TSOs, will restrict DS3 payments, creating further uncertainty for DS3 payments.

(iii) Lack of access to information: Participants in SEM do not have access to reliable data on historical SNSP levels, nor do they have access to details of how SNSP levels vary over time, nor do they know how much and when new non-synchronous generation will be connected to the system. This makes accurately forecasting SNSP levels extremely difficult.

(iv) TSO unforeseen circumstances: If unforeseen circumstances arise which challenge the TSOs perceived understanding of the operation of the system under I-SEM, the TSO has stated they may decide to operate the system at levels of SNSP below 60% for periods (until the issues are resolved) during such time scalars will not apply. Such a potential undermines confidence in the proposed regime.

Clarification is requested on how this decision might be made, what criteria might be used, what details will be shared with industry, and what regulatory oversight/approval there will be?

(v) Potential Grid Code Requirements: The TSOs suggest in the consultation papers that in the longer term there may be merit in exploring whether the provision of two DS3 services, namely FPFAPR and DRR, should become grid code requirements. Such a potential may, among other possibilities, lead to a change in the tariff arrangements for these services. Such potential will cause participants to fear investments in the provision of these services, and further fear such a potential may be considered for other DS3 services. The TSOs are asked to confirm what the potential “longer term” might mean, and also to confirm how investors will be protected if such an event were to occur.

3.4 High Scalars indicate incorrect base tariff rates

The analysis outlined in the consultation resulted in proposed temporal scarcity scalars of 6.2 and 8.5 (and higher). Such high levels of scalars are argued to logically indicate the base tariff rates are set at too low a level. Such high scalars it is argued also provide a distorted view of the value of DS3 services, and further brings into question the analysis work performed in 2013 by the TSOs on the relative value of the tariffs (such analysis the TSO claiming in the paper they feel does not require revisiting in 2017).

The high value of these scalars introduces large cliff-edge effects. The idea that a DS3 service has a certain value at 59.95% SNSP level and then has a value of 620% of that just by increasing 0.10% to an SNSP of 60.05% seems unreasonable. This strengthens the argument that the base tariffs may be too low.

These cliff-edge proposals do not reflect the uncertainty around forecasting the SNSP – for example, given the impact of interconnector flows, wind levels (with uncertainty around load factor, and capacity build-out) and demand, with smart meters changing the responsiveness of demand (e.g. potential for higher demand in high wind periods due to lower prices, which would reduce the SNSP). This means that investors will not invest if SNSP is expected to be at 60%, rather that they will put a substantial margin on what the expected SNSP needs to be above 60% before they will invest.

3.5 Proposed delay in SEM Committee payment regime

The SEM Committee has decided to pay DS3 revenues on the basis of the higher volumes arising from a unit's Market Position and their Physical Dispatch. The TSOs propose a minimum of a 12 month delay in implementing this decision thereby increasing the uncertainty for investors. The TSOs contend this is due to their view of the risk of over-expenditure as a result of forecast error relating to this change. Such a potential delay, and the uncertainty of its length, would send the completely incorrect signals to the market as a whole, with participants effectively at risk of being financially penalised through lower revenues as a result of responding to TSO requests for services which the system desperately needs. Such a situation cannot be allowed to occur, and thus such a proposed delay should not be approved.

3.6 Settlement in I-SEM and supporting information

The interim DS3 regime was introduced from October 2016, and this introduced a higher level of complexity to settlement of ancillary services in SEM than had been seen previously. Since 2016 a number of participants have experienced regular issues with incorrect billing, and further these participants have not always had access to the required information necessary to allow them to cross check invoices, thereby making issue resolution a harder, and a more lengthy, process. The level of complexity in the settlement process in I-SEM will be materially greater still than today, and given the issues experienced to date as outlined, there is a real concern that the settlement process in I-SEM will be extremely onerous on participants, given no reference has been made in the proposal that the TSOs will guarantee participants have access to all the pertinent details they will need to be able to cross check quickly and efficiently all invoices and statements. Having access to the required information in a timely manner will prevent unnecessarily costly cash flow implications, facilitate smooth operation of finances, and improve market confidence in the I-SEM systems and processes.

3.7 TSO Incentives

It is not clear from the consultation paper what incentives the TSOs have in relation to DS3 services, or in relation to other areas which may affect the DS3 area and how it operates or recompenses service providers. Any incentive the TSO has that may directly or indirectly affect the level of DS3 payments, or how DS3 payments are allocated, should be made known to industry, and fully and clearly understood by all concerned. Full clarity and transparency in this regard should be provided so as to guard against creating investor uncertainty unnecessarily.

As noted in our response to Question 9 of the template questionnaire submitted in conjunction with this response titled “DS3 System Services Consultation – Ending Tariffs”, the RAs and TSOs are asked to consider the potential for the TSOs to be conflicted in their decision making given they are the owner of the EWIC interconnector, and decisions related to flows on this asset can have a material impact on SNSP levels, imports/export volumes, and DS3 payments, given it is normally the largest import/export source in the system. It is imperative that the right operational decisions are made at all times for the safety, stability, security and integrity of the system. The RAs and TSOs are asked to provide comfort to industry that steps have been taken, and procedures are in place, to ensure operationally the TSOs will at all times make decisions in the best interests of the system as a whole, and that there is a robust, stringent monitoring and reporting regime in place to ensure this is always the case?

A related concern revolves around the fact that the TSO will seek RA approval in order to make investments in EWIC. In the case being made to support this investment application the TSO will have to outline forecast volumes, and like many investment decisions it is likely a prudent view will be taken concerning volumes. If approval is given for such investment, and the resulting volumes exceed those forecast in the business case (which it is assumed will also be used in setting tariffs and budgets), an over-expenditure may result primarily due to these prudent forecast volumes. The TSOs and RAs are asked to advise how they would guard against

such a situation, and/or how they would prevent adverse negative impacts on the market if such a situation were to arise?

Additionally the latest draft Grid Code provides for Reserve Sharing between TSOs. Any reserve sharing agreed between either TSO in I-SEM, and the TSO in GB, could have a material impact of the SNSP level in I-SEM. This creates a further uncertainty in the market in relation to DS3 payments, and the ability of market participants to predict same, and further strengthens the argument for less DS3 payments to be made via the application of Scalars, and more through the application of higher tariff rates, in order to provide the required level of investor certainty. Acknowledging this uncertainty, the TSOs in I-SEM should have a firm obligation to publish to the market in real-time decisions they make in relation to reserve sharing with other TSOs.

3.8 TSO day-to-day operations and reporting

Transparency in relation to the following items will improve investor confidence;

(a): The TSO proposal outlines that scalars will apply when SNSP levels exceed 60% and 70%. However SNSP levels will only be known after the event. The TSOs are requested to outline to industry participants what they will be using to make DS3 services decisions on a day to day basis, and how on a day to day basis they will operate the system when they will not have real time SNSP information and yet will be calling on DS3 service providers in response to changes in the system.

(b): On a daily basis the TSO will be making decisions in relation to whether interconnectors are importing or exporting, and to what extent. These decisions will have a direct and potentially very material impact on the SNSP levels in I-SEM given the materiality of the volume flowing across the interconnectors relative to the market as a whole. As a result, it is imperative that the TSOs publish on a regular basis, details of the decisions they are making in relation to interconnectors flows, and the basis for these decisions. Further, details relating to TSO to TSO trades should also be provided as these too may impact SNSP levels in I-SEM.

(c): The TSOs are asked to confirm what reports they will publish to the markets in relation to day-to-day activities and system details, and in particular SNSP levels. In addition, the TSOs are asked to confirm they will be publishing, as close to real time as possible, SNSP information, and how this will be reported.

3.9 Rolling Expenditure Regime

The TSOs have outlined in the consultation papers their desire to avoid any potential overspend on DS3 services, and have outlined multiple options to use if the potential of overspend were to arise. From an investor's point of view there is a greater fear of underspend on DS3 services given many of the risks outlined in this response document, and in particular multiple years of underspend vs forecast.

To improve the situation from an investor's perspective Energia propose that the TSOs operate the DS3 payments regime with a view to avoiding an overspend on a five year rolling basis. This would mean that any under- or overspend in any one particular year gets "rolled over" taking a view over a five year period, with adjustments or actions only taken if there is an overspend over the rolling five year

period. By way of example, if in year one if there was a €10m underspend, this would be taken forward to future year, where if in year two there was a €10m overspend no action or adjustment to the regime would be taken given the variations in the two years taking a five year view cancel each other out.

Such a regime Energia believes creates a better incentive for investors to assist in achieving the DS3 investments required by the TSOs, while at the same time guarding against any undue under- or overspend. It also negates against potential undesirable material volatility in DS3 payments on a yearly basis.

3.10 Market disincentives to invest in DS3 services

The TSOs have clearly stated that they wish to encourage generators to provide DS3 services and have done a significant amount of high quality work and in-depth analysis to get to a situation of being able to propose what has been outlined in these consultation papers. While the proposed regime is unlikely to achieve all it is aspired to achieve, some variation of it may, and suggestions in this regard have been made in this response document most notably in Section 5. However there are two market issues that will act as material deterrents to investment in the provision of DS3 services which the SEM Committee decisions on market rules have created in other areas. These significant deterrents create an effective double discount of potential DS3 revenues, potentially yielding a situation where DS3 services are being provided for very little return, thereby discouraging investment in the provision of same. Such a situation is not in the best interests of the system as a whole or parties that rely on it for their survival including end users. It is strongly suggested that these two deterrents should be relooked at and altered in some way so as to positively encourage investments in DS3 services.

Firstly, as part of the preparation for the new Capacity Remuneration Mechanism (CRM) auctions, existing generators can apply for approval to bid into capacity auctions a higher cost than the calculated auction price cap (APC). In their Unit Specific Price Cap (USPC) submission participants are obliged to deduct forecast DS3 revenues from their total revenue requirements in order to calculate the specific capacity auction cost cap for that unit. Such a regime pointedly discourages investment in DS3 services if a participant is going to have its forecast DS3 income deducted from its potential capacity revenues.

Secondly, in its decision concerning the Balancing Market Principles Code of Practice (BMPCoP), the SEM Committee have decided that rather than participants being obliged to bid into the balancing market the true cost of their energy, they have outlined that it is optional for such participants to deduct from such energy costs their forecast DS3 revenues from their bids into the balancing market. Such a regime will discourage DS3 investment if participants believe competition will erode the true value of DS3 revenues over time, by this forcing of the DS3 market and energy markets to compete in this way.

The fact capacity payments to generators will reduce given the limitation proposed by the TSOs in the capacity auctions, combined with the artificially imposed cap on DS3 payments, will generate savings for the benefit of customers. Introducing the uncertainty outlined in the above, which may further reduce the true total payments received by generators is not a welcome situation given the increased risk profile of the I-SEM market compared to other markets, and to SEM.

Further the two market disincentives outlined above are in marked contrast to the position held by the Department of Communications, Climate Action and Environment (DCCAE) in their recent paper “Renewable Electricity Support Scheme: Transitioning to I-SEM (Options Paper)” issued 23 May 2017. In section 7.4 of this paper in relation to the potential for the Department to deduct DS3 revenues from Total Market Revenues (TMR) when calculating REFIT payments, it outlines clearly that *“the Department are minded, at this stage at least, not to include potential DS3 System Service revenues to TMR on the basis that to do so would reduce or even eliminate any incentive on such wind generators to participate in the System Services market which would not be in the long term interest of the industry and indeed of the end customer”*. The RAs are asked to consider the Departments views as outlined when considering the points raised in this clause.

3.11 Exit Signals and Lack of Locational Signals

The continued lack of Locational Signals in the DS3 Design is of real concern, as it is in effect giving clear exits signal to generating plants that are essential for system security reasons. This is not in the best interests of any stakeholder in I-SEM. The TSOs have implemented a regime that provides them with the ability to introduce locational scalars but which appears to comply with the minimum requirement of the SEM Committee decision in relation to locational scalar design. However the TSOs have further stated that the locational scalar will be set equal to 1.0 now and “for the foreseeable future”. This failure to give meaningful locational signals via the DS3 design may have material negative implications on the system and its users, and may risk damaging Ireland’s good reputation for having a reliable electricity system which is a key factor in attracting many potential business investors to Ireland.

4. Specific Comments

In the following section Energia provide detailed responses to the parameters consulted on in this consultation paper, and the issues raised as part of this.

4.1 Detailed comments on Enduring Tariffs

Detailed comments on the “Consultation on DS3 System Services Enduring Tariffs” are outlined in Appendix A (Page 11 of this consultation response submission).

4.2 Detailed comments on Scalar Design

Detailed comments on the “Consultation on DS3 System Services Enduring Scalar Design” are outlined in Appendix B (page 29 of this consultation response submission).

5. Proposed Modified DS3 Regime

In the following section Energia outlines a proposed modification to the proposed regime outlined by the TSOs in their consultation papers, which we believe will more effectively deliver the results required in the I-SEM market.

Energia believe that the following modifications to the proposed DS3 regime should be implemented by the RAs and TSOs from I-SEM go-live to as to achieve the desired results for I-SEM and end users:

- A trajectory of increasing DS3 tariff rates should be implemented whereby there is an annual increase in the base rates starting in 2018/19 up to 2020/21. Such increases should be sufficient to provide the correct signals for DS3 investment. Our analysis suggests that to properly encourage investments the tariff rates should increase by c25% for 2018/19 and a further c25% for 2019/20, whereupon further analysis should be carried out in order to determine the increase for 2020/21 required to achieve more reasonable scalar values than those as high as 8.5 outlined in the consultation paper. Any impact of this proposed modification on the Scalar values will depend on actual SNSP each year, and what level of DS3 payments have actually occurred.
- As suggested in Section 2.9 above, the TSOs should implement a DS3 payments regime whereby no year is looked at in isolation but instead assessed over a five year rolling horizon. Such a regime would result in any over- or under-spend of forecast DS3 payments in any one year, not requiring any action to be taken unless there is an overspend in a five year period. This will prevent one potential cause of undesirable material volatility in DS3 payments each year, ensure payments are in line with targets, and still ensure against overspend in a five year rolling basis.
- There is no delay in the SEMC decision in relation to payments based on the higher volumes between a unit's Market Position and its Physical Dispatch.
- Participants are guaranteed access to reports on SNSP levels and other aspects of the market to assure them that they will be able to track SNSP levels and verify any invoices or statements from the TSO. This will avoid unnecessary cash flow difficulties, and ensure prompt settlement of invoices.
- Details are provided to market participants on a weekly or monthly basis of what decisions the TSOs have made concerning interconnector flows, and how these decisions were made including how such decisions were in the best interests of I-SEM market.

Appendix A

Comments on Specific aspects of the Consultation on DS3 System Services Enduring Tariffs

No.	Page	Section/Para	Comment	Questions
1	2	Exec Summary	The analysis performed by the TSOs considered two portfolio scenarios.	Why did the TSOs consider it appropriate to just consider two portfolio scenarios on which to base decisions?
2	3	Exec Summary	The paper proposes that the new temporal Scarcity scalars will apply when the SNSP exceeds 60%	When is it expected that the SNSP level will exceed 60%? Please confirm that even if the SNSP is officially set to say 65% during 2018, that in any Trading Period when SNSP exceeds 60% (e.g. 60.01%) then the new temporal scarcity scalars will apply in that period?
3		General	The TSOs proposal for DS3 is based totally on the level of SNSP, and the application of Scalars is dependent on SNSP exceeding either 60% or 70%	Energia believes there is a real risk of prolonged delay in the achievement of SNSP levels in excess of 60% or 70%. This is due firstly to the link between the achievement of high SNSP levels and the achievement of required RoCoF levels. Secondly it is due to the fact what is being proposed in SEM/I-SEM in terms of SNSP levels has not been done anywhere else so issues may arise. The TSOs are asked to comment on these concerns, and provide a view are they concerns they share.

4	11	1.5	The TSOs propose to run a further Regulated Tariff procurement process for the 3 new services, with a contract execution date of 1 September 2018	Section 3.6 (Pg. 36) confirms Start Date is 1st Sep 2018 i.e. it will only apply for 1 month on 2017/18 Tariff Year. It seems questionable to push to have this implemented for one month of 2017/18, and suggested that the start date of contracts should be 1st Oct 2018 when the new Tariffs are known and parties have comfort in relation to unchanged tariff rates for 12 months (at least).
5	17	2.2	The TSOs state the System service weightings should reflect the relative requirement and contribution each service will make to the TSOs ability to operate a safe, secure and reliable system	The TSO's are asked to confirm what the "System Service weightings" are and how they were calculated?
6	17	2.3	The papers suggest that it is likely to be a need for these new services to come from new or enhanced providers (as conventional plant is increasingly displaced from the system), and to also cover technical scarcities which were previously unknown as a result of this loss of plant.	Clarity is requested as to what the TSOs mean by Technical scarcities?

7	19	2.4 (and Section 3.4 Table 6)	The TSOs in their consultation paper initially propose to link scarcity scalars to the SNSP level of the system	Energia does not support the proposed application of scarcity scalars as outlined given the very low percentage of the time (outlined in Table 6 Page 34) when SNSP is expected to be above the TSO suggested thresholds. Further such an application method as proposed provides little certainty as to when or how much DS3 revenues may accrue and as such do not provide the appropriate signals for investment, which is argued to be undesirable and contrary to one of the desired outcomes of the application of the DS3 revenues.
8	19	2.4	The paper outlines that the TSOs intend only to implement scalars that would provide demonstrable benefits in terms of operational flexibility or savings for the energy consumer, and are relatively easy to implement and to understand	While it is understandable to want a regime which is easy to understand and implement, this should not in itself prevent a regime from implementing scalars based on the desired outcomes that the system needs. Thus the TSO is asked to confirm it did not exclude any Scalar for a service the system needed purely on the basis of its level of difficulty to implement?
9	19	2.4 note 14	The TSOs advise they "do not intend to apply scalars greater than 1 in the foreseeable future" and that in their modelling they assumed a value of 1	Clarity is requested from the TSO to confirm this comment related to locational scarcity scalars only?

10	20	2.4	It is proposed that when SNSP is below 60%, a scalar of 1 will apply to the 11 existing services, and a scalar of 0 will be applied to the 3 new services (FFR, FPFAPR and DRR)	(i) The analysis for this is based on historical TSO experience looking at a power system which was largely supplied by conventional generation plants. Such a situation is unlikely to reflect the power system of the future in I-SEM given the fundamental changes therein with reduced conventional plant, even more renewables, and increased new technologies. Hence it may not be prudent to assume a scalar value of 0 for the 3 new services, with SNSP levels below 60%, in particular FFR, from I-SEM go live. (ii) POR and FFR are quite similar, and thus at SNSP levels < 60% it appears inappropriate to have a scalar of 1 for POR but a scalar of 0 for FFR.
11	21	2.4	In the paper the comment is made that in the longer term there may be merit to exploring whether the provision of FPFAPR and DRR should become Grid Code requirements.	Energia would not support any move to make the provision of FPFAPR and DRR mandatory under the Grid Code given the likely risks and costs associated with the provision of such services. With the right commercial signals in place the TSOs will be able to contractually secure adequate FPFAPR and DRR services easily without having to make it a Grid Code requirement.
12	21	2.4	Assessment was made of two scarcity scalar implementation methods - stepped and linear	The TSOs are asked to advise if they have considered implementing a Linear regime where the starting point for the scalar is below 60% SNSP? Such a regime, assuming the maximum scalar may be unchanged, would give rise to a more gradual increase in Scalar values with increasing SNSP levels.

13	21 & 23	2.4 & Table 2	The TSOs propose to reserve €15 million from the €235m maximum pot to cover the additional expenditure that could arise as a result of the SEM Committee decision to pay based on the higher volumes arising from a units market position or physical dispatch position, and to cover the cost of the Qualification Trial Process	(i) €15m (6.3% of the potential pot) is a material amount of money that could potentially go unpaid in a certain year depending on outcomes. Hence, given the RA's (unlike market participants) are likely to have access to the calculations behind this, the RA's are urged to ensure this figure has a firm basis and is reasonable. (ii) Given a Qualification Trial Process will take place in the 6 months up to Sep 2017 is the paper suggesting the cost of this trial will be recovered in 2020?
14	21 & 23	2.4 and Table 2	The SEMC has decided to pay for DS3 on the basis of the higher volumes arising from a Units Market Position (deemed to be the FPN) and the Physical Dispatch	Energia requests the TSOs to confirm that the Physical Dispatch means the same as it does today i.e. what the physical meter reading is?
15	21 & 23	2.4 and Table 2	The TSO's suggest that the "Min Spend" scenario is calculated to require a Scalar of 3.1 or 4.3 for a stepped scalar process, and is noted to be "N/A" for a linear scalar process.	There is insufficient detail provided in the consultation paper to allow parties take an informed view about how the "Min Spend" was set/calculated, and the logic behind this and the assumptions made.
16	22	Figures 4 and 5	Fig.4 and Fig.5 outlines pictorially how Linear and Stepped Scalar Design work for full spend parameters	The figures show the Scalars being implemented for FFR at SNSP \geq 60% as opposed to the > 60% as per the draft wording in the paper and (ii) for FPFAPR and DRR at SNSP \geq 70% as opposed to > 70%. It is argued that what is outlined in the Figures is a cleaner approach, and the RA's and TSO's are asked to consider implementation on this basis for ease of understanding, and system implementation.

17	24	3.1.1	In the 2017/18 tariff year, assumptions have been made by the TSO as to the capabilities of existing service providers and a relatively small amount of new service providers.	Clarity of the full detail of the assumptions made by the TSOs are sought. Has an external view been sought on such assumptions to ensure there is no risk that the TSO's assumptions may create misleading results?
18	24 & 25	3.1.2	Two diverse 2019/2020 portfolios have been modelled by the TSO.	The extremes of (i) having one view assuming limited DS3 services from new service providers and most services provided from enhanced existing providers, and (ii) the other view of having a large amount of services provided from new providers (1,200 MW) and a limited amounts from existing providers, risks overlooking that the reality may be somewhere in the middle. The TSOs are asked to confirm why they have chosen two extremes, and also to provide an analysis of a "middle ground" regime as this would facilitate a sense check on the conclusions being put forward by the TSOs.
19	27	3.1.2	The base case assumes the 2009 wind time series, while the Low Wind Case assumes the 2010 wind time series, while the High wind case assumes the 2011 wind time series	No rationale has been provided as to why each of these wind time series have been chosen. The TSOs are asked to clarify this point
20	28	Figure 7	The figure 7 shows how RES-E % and Wind Curtailment % vary in 2019/20 depending on the selected simulation cases	The consultation paper suggests "System dispatch and the resulting system service remuneration volumes are fundamentally dependent on the portfolio". Thus one would expect different results for Enhanced Capability Portfolio and New Products Portfolio, yet Figure 7 appears to show the results very similar. The TSO is asked to explain why this occurred as such a result brings into question the value of the analysis.

21	29	Figure 8	Figure 8 are following the application of the Product Scalars but prior to the application of the scarcity scalars	Clarification is sought as to the units for the Volume figures in Figure 8?
22	30	3.3	The relative value of the services in the longer term is based on an analysis performed in 2013	Energia advocates this analysis is relooked at before any final decision is made in this regard. This is because it is argued that (i) the level of decisions in relation to I-SEM in 2013 was far less than it is today (ii) the level of analysis and knowledge of how the electricity system is expected to perform under I-SEM is vastly different in 2017 than it was in 2013. It thus appears wise to update the analysis performed in 2013 in relation to the relative value of system services.
23	31	Table 5	The paper outlines the Proposed Tariff Rates for Enduring Regulated Arrangements	The TSO is asked to explain why the tariff for FFR is so much less than that for POR. The tariff for POR at 50% more than that for FFR appears inappropriate given the expectation that the faster the response the more valuable it is to the system. (Note Figure 8 indicates that due to the higher Volume required of FFR the spend on FFR will be approx double that on POR).
24	31	Table 5	The paper outlines the Proposed Tariff Rates for Enduring Regulated Arrangements	The TSOs are asked to explain why the tariff for RM1 is less than that for either RM3 or RM8? Does this reflect view of the TSOs that a service is more valuable to them the longer it can be provided, rather than how quickly it can be provided?
25	31	Table 5	The paper outlines the Proposed Tariff Rates for Enduring Regulated Arrangements	Given the volume of DRR forecast to be required is second only to the volume required for SSRP, the TSOs are asked to explain why the DRR tariff is so low relative to other tariffs?

26	31	3.4	Due to the "availability" payment definition, some system services providers e.g. DSUs and Non-Synchronous Technologies, may qualify for payment for very large number of hours	A regime where new technologies appear to be deemed to be available 100% of the time may not reflect reality in the market. The TSOs are asked to provide assurances to the market that they will verify in real time on a continuous basis that such new technologies are actually available for the time they are deemed to be.
27	32	3.4	The paper outlines that the reduced or increased levels of SNSP have a knock-on implication for the quantity of time in the year when the scarcity scalar is increased	This suggests there is a real possibility there will be under payment of DS3 revenues in some years (especially when wind is lower than expected) the TSOs are asked to confirm what will happen to the unspent DS3 monies in such year? Will this feed into the DS3 review process?
28	33	3.4	One of the design goals of the scarcity scalar is suggested to be to aid in lowering the sensitivity of the system service total expenditure to uncertainties	Figure 11 shows a potential 29% variability in the revenue between the Base Case for 2019/20 Enhanced, and the Non-Synchronous Investment case for 2019/20 based on New Providers. This is still quite a material level of sensitivity. The TSOs are asked to advise that the level of variability might have been without the scarcity scalar regime?
29	34	3.3 (Table 6)	Table 6 indicates the Percentage of time at high SNSP levels (when Temporal Scarcity Scalars may apply)	The amount of time SNSP will exceed 60% is outlined in the paper to be between 7.8% and 29%. This potentially low number of periods in which Temporal Scarcity Scalars may apply, and the unpredictability of when they may occur, do not provide a strong incentive for investment. The TSOs are asked to provided details on what is driving the uncertainty in relation to the forecast for SNSP > 60%?

30	34	3.3 (Table 6)	Table 6 indicates the Percentage of time at high SNSP levels (when Temporal Scarcity Scalars may apply)	The TSOs are asked to provide the Profile of these revenues over the year period for the 2019/20 year as per the table outlining when such periods of SNSP exceeding 60% and 75% will occur.
31	34	3.3 (Table 6)	Table 6 indicates the Percentage of time at high SNSP levels (when Temporal Scarcity Scalars may apply)	The TSOs are asked to provide the same figures as outlined in Table 6 for 2019/20 year, for the years between now and then i.e. 2017/18 and 2018/19. The TSOs are also asked to provide the profile of these revenues for these two years outlining when such periods of SNSP exceeding 60% and 75% will occur.
32	34	3.4	SNSP levels. Energias initial forecasts suggest that both the base case and the low wind cases appear to significantly over forecast 70%+ SNSP. .	Can the TSO's confirm how they have forecast this, and confirm whether SNSP is calculated on the basis of an unconstrained system or dispatch curtailed?
33	36	3.5 Figure 13	Figure 13 shows the forecast revenues for each Technology type	The TSOs are asked to confirm these figures are for the 2019/20 year? Given the provision of DS3 services is to be provided on a technology neutral basis the TSOs are asked to explain how they calculated the numbers outlined in this Figure? The monetary amounts outlined in this figure appear to provide little incentive for investment by conventional plant and wind compared to greater incentive to invest shown for plant of newer technologies.

34	36	3.5 Figure 13	Figure 13 shows the forecast revenues for each Technology type	The revenues per MW between the two scenarios "2019/20 Enhanced Providers" and "2019/20 New Providers" appear to be the same for all providers except for DSU and SIR Network Developments. If the total expected requirement for DSU services is expected to be the same in each case, why have the DSU and SIR Networks values increased but none of the others have decreased?
35	36	3.5 Figure 13	Figure 13 shows the forecast revenues for each Technology type	The TSOs are asked to provide the actual figures behind this Figure 13. Further the TSOs are asked to provide the make-up of the revenues per technology type outlined in Figure 13 i.e. for each technology type what revenues are expected from the provision of each DS3 service?
36	37	3.6	The simulations of the "Min Spend" and "Full Spend" scenarios results in forecast spends of €87.5m and €102.5m respectively for capacity year 2017/18	This gives rise to a potential 17% difference in revenues (or €15m). Greater detail is requested as to the assumptions, calculations and drivers for this difference in the level of spend on DS3 in order to better inform investment decisions.
37	37	3.6	The simulations of the "Min Spend" and "Full Spend" scenarios results in forecast spends of €87.5m and €102.5m respectively for capacity year 2017/18	Even the "Full Spend" scenario outlined in this Table 7 falls short of the €115m expected for 2017 as per the Glidepath. The TSOs are asked to explain why there is still this difference?

38	38-40	4.2	There are numerous challenges to achieving investment certainty for new or enhanced system services providers, including length of contract, and price certainty for system services tariffs	Energia supports the TSOs stated position that there is a benefit to investors by having certainty in terms of contract length and tariff rates. Energia further supports the TSOs view that a contract duration of a minimum of four (4) years and tariff reviews only if certain specific criteria warrant it, would provide significantly improved investment certainty than otherwise. However utilisation of SNSP to decide when Scalars apply fails to provide the revenue certainty the TSOs claim they would like to achieve, and as such Energia cannot support the proposal to use SNSP as currently proposed.
39	41	4.3	The TSOs state that unforeseen circumstances may arise which challenge their perceived understanding of the operation of the system, and if this occurs the TSOs suggest it may be required to operate the system at levels of SNSP below 60% for periods.	If this occurs, a mechanism should be found to continue to pay out for DS3 system services as if the SNSP was operating above 60% to the same level normally expected (forecast) as to do otherwise will undermine investor confidence. Consideration needs to be given to the fact that investments may have already been made.

40	41-42	4.3	The paper states that there is currently no other synchronous system managing the same high level of wind and solar (in SEM)	While this is positive in regard to the SEM leading the way in this regard, it does create a huge degree of uncertainty in relation to the reliability and predictability of the system in the future. It also creates a huge degree of uncertainty in relation to the forecasts and predictions as outlined in this consultation paper. This may be a further deterrent to investment in the future. Thus it is suggested, more needs to be done to provide greater certainty on DS3 revenues than as outlined in this consultation paper if the required level of investment is to occur. The three potential mitigation options outlined on page 42 do little to reduce the perceived risk.
41	43	4.4.1	The Consultation paper outlines that DSUs and non-synchronous technologies could be available and eligible for payments for every hour of the year assuming they are not forced out or on maintenance	While these technologies may be "available" for a large number of hours the MW volume available may vary over time, so the potential revenue in each hour may not be the same over the year. As previously requested above the TSOs are asked to provide assurances to the market that they will verify in real time on a continuous basis that such new technologies are actually available for the time they are deemed to be.
42	43-44	4.4.1	A potential risk mitigation against over-investment suggested by the TSOs is to redefine "availability" for new entrants	Such a move may be discriminatory to new entrants in favour of existing providers. If "availability" is to be redefined it must be redefined for the entire market

43	44-45	4.4.1	The TSOs suggested potential ways to mitigate against DSU and non-Synchronous over-investment being to either (i) apply a volume scalar to trading periods to pro-rata payments per trading period (ii) impose volume limits on DSUs and Non-Sync Technologies in a variety of possible ways	Both of these options appear to be reasonable and logical in order to avoid the real risk of the over-investment as outlined. It is noted that further consultation on this would be required which Energia agrees with.
44	47	4.4.2	To mitigate the risk of over-expenditure as a result of forecast error relating to the variation between market and physical dispatch the TSOs propose a delay of a minimum of 12 months post I-SEM go-live of paying on the basis of the higher of the 2 values	Given the need to provide the market with revenue certainty Energia does not support this TSO proposal and suggests the SEMC decision is implemented from I-SEM go-live as expected by the market. In fact the TSOs have provided no justification for any delay. Energia propose a review of Tariffs after 12 months as proposed in Comment 43 would be preferred to a delay in implementing the SEMC decision.
45	48	4.4.3 Option 2	The TSO proposes not to perform a conditional review in a High Annual Wind Capacity Year arguing the over-expenditure will likely be negated by the decrease in energy prices in the year.	This proposal, outlined in Section 4.4.3 cannot be supported by Energia. Firstly the argument of reduced energy payments is argued to be irrelevant when viewed from the DS3 perspective. Secondly Energia supports the proposal set out by the TSOs in Section 4.2 that a conditional review would take place in the event of either an under-expenditure or over-expenditure over a number of years (or an over-expenditure in a certain technology in a certain year). This criteria must apply mechanically regardless of the reasons for the change in spend, as to do otherwise would undermine the entire process, whereby a return to mandatory annual reviews may be

				considered a better alternative.
46	51	4.5 (and also 4.2)	The TSOs recommend that the tariff rates be set once at the beginning of the regulated arrangements	While Energia supports the principle of greater certainty in terms of tariff level and duration, setting the tariff rates once at the start of a new market assumes perfect foresight by the TSOs for the new market which contains a great deal of uncertainty. It is suggested this is overly optimistic, and a more reasonable approach is to review the tariffs at the end of the first year of the market, and thereafter keep them fixed for a defined period subject to conditional review.
47	53	4.5 Q.8 (and 4.4.1)	The TSO propose a limit on the services that can be provided by new DSUs and Non-Synchronous Technologies (or any other technology that might qualify for payment for all hours of the year regardless of the TSO's requirements)	Energia support the use of a restriction on the volumes of new DSU and new technologies in this instance. Which of the 4 methods proposed (or alternatives) will be the subject to another detailed consultation and hence Energia reserves its views on these at this time. It is noted the TSO's least preferred option is Option 4 involving a tender process. Energia believes that Options 4 and 3 may be the most complex to implement regardless of how appropriate they are, with Option 1 appearing to be the most practical approach.
48		General	Settlement today under SEM is not working correctly with regular queries on payments	I-SEM will be a more complex scenario for DS3 than exists today for HAS in SEM. What guarantees can the TSOs give to the market that they will have in place from I-SEM go-live a robust, effective, reliable, prompt and accurate settlement system to deal with DS3 payments?? Can the TSOs guarantee participants that they will provide them with the required level of detail in sufficient time in order to allow

				participants to fully verify payments for DS3 services from the TSO??
49		General	What incentives does the TSO have not to spend the DS3 budget?	Is there any incentive (other than the incentive to reduce Constraint costs) that the Industry should be aware of?
50		General	If the TSO uses the Interconnectors to export non-synchronous generation (including wind) from Ireland and in so doing reduce the SNSP below the relative threshold percentages then the DS3 Product providers lose revenue.	How will the TSO report to industry the decisions it makes as to how the interconnectors will import or export? How Operationally will the TSOs decide what DS3 services it needs given they will not know actual SNSP levels until after the event, but will be making real time decisions? What criteria will these real time decisions criteria is also needed
51		General	Reporting SNSP levels	The TSO are asked to confirm they will be reporting SNSP levels to participants on a regular basis and to confirm to whom are they accountable to ensure the SNSP percentage is reported correctly.
52		General	It is not clear where the Scalar values sit in terms of the I-SEM arrangements	The TSOs are asked to confirm if the Scalars sit in the contracts signed between the TSOs and participants, or if they will sit in the Protocols? These should sit in the Contracts, and be subject to consultation in order to implement any change in a similar way to consulting on the tariff rates.
53		General	At the workshop in Dundalk the TSOs advised that there would be a three week consultation period in relation to the contracts to cover DS3 services between TSOs and participants	Three weeks is insufficient to have contracts of such importance properly analysed by internal and external legal teams and thereafter approved by senior management. Further it is contrary to the RAs commitments on consultations to give 4-8 weeks. The TSOs are asked to relook at this with a view of providing at least one extra week.

54		General	Potential changes in tariff rate weightings were suggested in a previous DS3 paper (Table 3 of the Interim Tariffs Consultation published on 8 April 2016) which it was assumed would cause reduction in tariffs for certain products in 2020, and an increase in other.	Can the TSOs confirm that the proposal as outlined in the consultation paper negates the potential outlined in the April 2016 paper, or does it in fact take these changing requirements into account in its calculations?
55		General	Small SIR providers, large SIR providers (cap on payments for SIR), current FFR providers are not being paid and SNSP levels have been increased therefore giving a reason to increase tariffs	The Tariff base rates should increase above their current level so as to reflect the incremental value of the services being provided to the system since SNSP levels increased from 50%
56		General	The SEMC stated in the SEM-14-108, that the existing providers are to receive clarity that they will receive appropriate remuneration and the new providers are to have a mechanism where they can make significant investment,	Neither of these stated outcomes is being met by the proposal as currently outlined.
57		General	The temporal scarcity scalar for DRR and FPFAPR is suggested to be aimed at encouraging investment in services from units which are on when SNSP is high, greater than 70%.	Given that the maximum SNSP level expected is 75% in may be very unlikely any investor will be encouraged to invest for the 4% of available enhanced payments
58		General	The TSOs claim in the consultation to wish to create a DS3 regime to encourage investment in DS3 services but given the unpredictability of SNSP levels the proposed regime may not deliver the level of investment required.	To improve the certainty in this regard the TSO should consider guaranteeing a minimum expected % of times the SNSP will be above certain levels and guarantee payments of at least this (such level may be the least value outlined from the scenarios run where the results are outlined in Table 6 page 34). This could be reviewed whenever there is a tariff rate review.

60		General	<p>The TSO have provided some modelling information during the consultation process.</p>	<p>Energia welcomes the additional datasets made available by the TSO during this consultation. However, we request more detailed information on the assumptions and methodology behind modelling of the non-synchronous technology class. Such information would relate to the operation of the energy limited storage units (i.e charging/discharging cycles) and if they are being used to participate in the energy market in addition to offering DS3 services. This would help in understanding any potential impact on the expected availability of non-synchronous technology to deliver DS3 services and the tariff/scarcity scalar dynamic</p>
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Appendix B

Comments on Specific aspects of the Consultation on DS3 System Services Scalar Design

No.	Page	Section/Para	Comment	Questions
1	7	2	It appears from the consultation paper that providers of the FFR service can potentially avail of 6 of the 10 proposed new scalars, 2 of which only FFR can avail of (Product and Temporal),	It is argued this appears to give providers of FFR undue preference in I-SEM over all other service providers of different services. The TSOs are asked to comment on this?
2	9	2.1	The TSO proposes to introduce a new concept of "Certainty of Service Availability" in relation to Reserve and Ramping Margin providers whereby they are incentivised to provide accurate forecasts for same over 6 hours, 6 hours ahead.	<p>The TSO is asked to confirm this concept is only being suggested for wind generators given there is no issue today for the TSOs from thermal generation units in terms of forecasting errors?</p> <p>Assuming the requirement is only being proposed for wind (subject to the REFIT decision in ROI) Energia view this could be a very harmful to any such generator given they are already incentivised in I-SEM through their obligation to be balance responsible. This obligation exposes them to the product of the difference between their FPN and final dispatch times the price difference between the DAM and BM. Given the unpredictability of these market prices this will act as an incentive to generators to forecast accurately.</p> <p>The TSO's have not outlined a strong argument as to why this scalar is necessary so further details in this regard are requested to be provided by the TSOs. However any such scalar should not be of a scale to unduly</p>

				penalise generators who are already exposed to the BM penalties as outlined.
3	9	2.1	Certainty of Service Availability. Responsibility for wind generators to provide an accurate forecast of availability to provide reserve and ramping is difficult to accept as reasonable.	<p>A unit's ability to ramp and provide reserve is a function of its unit commitment status. Given this dependency on dispatch which is outside its control it appears inappropriate that a market participant should be penalised.</p> <p>A further consideration is that requiring this forecast 6 hours out is likely to undermine the liquidity in the DAM and IDM given participants are likely to take a more prudent approach. It also leaves participants on the hook as a result of non-energy actions.</p>
4	13	2.2	The TSO proposes a scalar of 3 to apply if FFR can be delivered faster than 0.15 seconds, and a ramping scalar between 2.0 and 3.0 applies where FFR can be delivered faster than 0.5 seconds but slower than 0.15 seconds.	No details have been provided as to why a scalar of 3 reflects the value to the system of FFR responding in under 0.15 seconds, where a Scalar of just 1 applies if FFR is delivered in 2 seconds. The TSOs are asked for further details on this.
5	13-14	2.2	Performance monitoring mechanisms will assess whether the unit has responded within the contracted timeframe	Details have not been provided as to what these performance monitoring mechanisms are, who will pay for them, who will install and maintain them, etc. Further the data protection concerns surrounding this have not been discussed. Lastly no mention has been made as to the mechanism to monitor a faster response than that contracted for (less than 2.0 seconds down to 0.15 seconds). Details of these issues are requested.

6	22	2.3	<p>Product Scalars for Enhanced Delivery of FFR, POR, SOR and TOR1 will continue to use (i) A Trigger Scalar between 0 and 1 for frequency trigger of 49.3 to 49.985hz (ii) a Type scalar of 0.5 for static response and 1.0 for dynamic response</p>	<p>This is the only Scalar which does not provide a positive incentive mechanism for enhanced delivery. Instead it penalises for poorer delivery than expected given the best result you can get is a scalar multiplier of 1 which would result in you getting paid the full tariff rate. Multiplying the Trigger Scalar by the Type Scalar will in most cases give a value of less than one, and always give a value less than 1 for Static response. Thus it is argued this Scalar fails to meet SEM-14-108 which dictates all Scalars must be a minimum of 1. The TSOs are asked to outline why they believe it is acceptable to implements a scalar that does not comply with SEM-14-108?</p>
7	23	2.3	<p>The revised upper threshold of the Trigger Scalar is set to 49.985HZ</p>	<p>Removing the financial incentive for a unit to start reacting to a frequency variation event in the range 49.985-50.000hz may not be in the overall electricity systems interest given there is likely to be a time lag between when the unit starts to respond (now when the frequency hits 49.985HZ) and when the system starts to feel the benefit of such response, at which time the system frequency may be lower than 49.985HZ. Previously the unit had an incentive to start reacting at a value between 49.985-50.0 so that the system may not have reached 49.985HZ.</p>
8	24	2.3	<p>The TSO's acknowledge that the maximum scalar value of 1 may not align with the SEM Committees decision paper SEM-14-108 which states that scalars default to 1 and then increase</p>	<p>Energia support the SEM Committee decision of scalars defaulting to 1 and then increasing. Thus Energia do not support the TSOs proposal for Product Scalars which do not provide incentive for the provision of such services but rather penalise for non-performance.</p>

9	25	2.4	<p>The TSO are proposing a Product Scalar for FFR units to continue to provide Reserve for 2 seconds to 5 mins i.e. for all of FFR, POR, SOR and TOR1. A Scalar of 1.5 is proposed if reserve is continued to be provided all the way from 2 sec to 5 mins. A Scalar of 1.0 applies for all other situations.</p>	<p>The TSOs have not provided any details on the analysis performed for this, including why it is mandatory in their view that the service must be provided for the full range from FFR to TOR1.</p> <p>If the provision of Reserve from FFR to TOR1 justifies a Scalar of 1.5, it appears hard to rationalise how there is no additional value to the system of providing continual reserve from FFR to say SOR, or even FFR to POR, over and above simply providing FFR services. Logic would suggest there is a value, but it is understandable why the TSO would and the provision to extend from FFR to TOR1. It is suggested that a Scalar of [1.2] could be used if a unit provides reserve from FFR to POR and SOR, and a Scalar of [1.1] could be used if a unit provides reserve from FFR to POR. Otherwise there is no incentive for a unit to provide anything other than FFR, if it cannot supply Reserve to TOR1.</p>
10	27	2.5	<p>TSO's outline that they are working with the DSO on putting in place arrangements that would allow embedded generators provide SSRP Service and these arrangements will be communicated to stakeholders in advance of the procurement process</p>	<p>As this is a fundamental change to the concept of what was envisaged to be the provision of SSRP, if there is to be such a service it should be subject to a full consultation with industry and not simply communicated to industry as proposed. Industry needs to be sure SSRP providers to the DSO system are not being unduly favoured over other SSRP providers.</p>
11	27	2.5	<p>The Scalar of 2 is proposed when a unit provides SSRP with an AVR.</p>	<p>The TSOs are asked to provide details as to why such a high scalar is justified for this service.</p>

12	29	2.6	Following further consideration the TSO's consider that there is further benefit in incentivising the provision of SSRP right down to 0MW output levels.	The TSO's are asked to provide detailed information as to why their thinking on this changed given previously they were not being minded to implement this scalar. Further the TSO are asked to provide justification for setting this Scalar to 2 instead of something lower e.g. 1.5.
13	29	2.6	The upper Scalar (i.e. 2) would only apply when the TSOs dispatch a unit operating at 0MW output to provide SSRP.	The TSOs are asked to advise how they will know the Unit has responded once dispatched?
14	32	2.7	Proposed Scalar of 8.5 for Temporal Scarcity Scalar for DRR and FPFAPR when $SNSP > 70\%$, and 0 when $SNSP \leq 70\%$.	This Scalar was proposed to be 1 in the 2016 consultation. The TSOs are asked to provide justification for such a high level of Scalar now.
15	34	2.8	Proposed Temporal Scarcity Scalar for FFR of (i) 6.2 when $SNSP > 60\%$ but $\leq 70\%$, and (ii) 8.5 when $SNSP > 70\%$ and (iii) zero at other time	The TSOs are asked to provide information to justify such high Scalar values
16	36	2.9	Proposed Temporal Scarcity Scalar for all 11 existing services of (i) 6.2 when $SNSP > 60\%$ but $\leq 70\%$, and (ii) 8.5 when $SNSP > 70\%$	Energia supports the application of a Scalar above 1 for the 11 existing Services which is in line with the proposal of the SEMC in SEM-14-108. The TSO is asked to advise how the Scalar values of 6.2 and 8.5 were calculated.
17	37	2.9	The TSOs consider the provision of the existing 11 system services are important at all SNRP levels and thus propose a Scalar of 1 when $SNRP < 60\%$	Energia support the TSO in this assessment and proposal.

18	39	2.1	The TSOs propose a Locational Scalar of a minimum of 1, with the ability to set it higher in certain geographical areas. However it is not envisaged to have Scalars greater than 1 for the foreseeable future	Given the recent SEMC decision on Locational Constraints linked to Level 1 and Level 2 constrained areas, the TSOs decision not to implement Locational Scalars in excess of 1 for the foreseeable future appears at odds. The TSOs are asked to provide more details on why they have come to this decision, and also to advise how this links to the Targeted Contracted Mechanism as advised by the SEMC under the Locational Constraints consultation?
19	41	3.1	The TSOs do not propose to establish a Locational Scalar for SSRP alone, but one common Locational Scalar for all 14 DS3 services	Energia support the TSO in this decision on the basis that many of the DS3 services will be required at various locations in I-SEM by 2020 due to the changes expected in electricity flows in the system by that time
20	42	3.2	The TSO's do not propose to implement a Product Scalar for Enhanced Delivery of DRR with more reactive current	Energia support this stance as no rationale for its introduction has been provided by the TSO and thus it does not appear justified
21	43	3.3	The TSOs do not propose to introduce a Product Scalar for Enhanced Delivery of SSRP with a Power System Stabiliser (PSS) but instead deal with negative issues through the Performance Scalar	Energia agree with the TSO not to implement this Scalar as proposed. However, the TSO's are asked to advise how the introduction of such a Scalar would not meet the objective of a Product Scalar as set out in SEM-14-108 as the TSOs have suggested in this paper? If the logic for this is that as per SEM-14-108 such a Scalar should have a minimum value of 1 and thereafter increase, then it is argued for the same rationale the proposed implementation of the Product Scalar for Enhanced Delivery of FFR, POR, SOR and TOR1 should not be implemented in the current way it is proposed but rather with Scalar in excess of 1.

22	44	3.4	The TSOs propose not to introduce a Product Scalar for SIR with Reserve (at Min Gen or lower generation values) as this has the inherent potential to introduce the undesired outcome of providers not offering their true lowest possible Minimum Generation level.	Energia agree with the proposal not to introduce this Scalar. SIR and Reserve are two separate products and there is a high risk such a Scalar will negatively affect the potential offering for both of these services from providers (which will have negative results for the system potentially) by creating an artificial relationship between them via this scalar.
23	45-46	3.5	The TSOs are minded not to introduce a Product Scalar for Faster Response of FPFAPR due to the potential of diluting the revenue from the FPFAPR product away from non-synchronous providers that may have to make investment in order to provide the product.	Energia support the non-introduction of this scalar. However Energia's rationale for this is not in line with the TSOs. Our rationale is that firstly no strong argument has been made for introducing this Scalar. Secondly at a time when FPFAPR is required essentially the TSOs will be looking for all providers to do all they can, and this is best achieved but simply having a better base rate tariff for FPFAPR (and not a Scalar as proposed).
24	46-47	3.6	It is proposed by the TSO's not to implement a Temporal Scarcity Scalar for Reserve Products given the complexity of applying this to real time situations, and also due to the fact TSOs are introducing a common Temporal Scarcity Scalar for all 11 existing products, incl Reserve products.	The rational for such a scalar for Reserve as outlined in the TNEI/Poyry report has merit, but the complexity of operating same is a concern. Due to this Energia supports the non-introduction of this Scalar at I-SEM go-live but suggest the situation is re-evaluated after 12 months of I-SEM operation to determine if there is a reasonable case for its introduction, and if so if it can be implemented more simply. If this were to occur then Reserve products would move to this new Scalar and would no longer be eligible to receive the common Temporal Scarcity Scalar enjoyed by the other 11 existing products.
25	47-48	3.7	The TSOs do not propose to create a Temporal Scarcity Scalar for SIR	Energia support the non-introduction of this Scalar as the benefits of same are unclear

26	48-51	3.8	It is not proposed to implement a Volume Scalar at I-SEM go-live but this will be reviewed during the time of the Regulated Arrangements if required	Energia in principle agree with the TSO's proposal not to implement a Volume Scalar. If there is a concern in relation to over-spend, targeted action on specific Scalars, or on specific or all tariff rates, would be a more preferable alternative. The Energia proposal for a rolling payment regime will further help prevent an overspend.
27	52	Section 4 - Summary	Control Parameters, bespoke to providing units, are applicable to each FFR Frequency Response curve	Only 2 "curves" have been provided, one for Static Response and one for Dynamic response, and in neither case have any details been provided on the Control Parameters. The TSOs are asked for this details
28	53	Section 4 - Introduction	Frequency Response Curves are required to maximise the benefits of the Service to the System while also ensuring that system security is not compromised	Further details are requested from the TSOs as to exactly why two frequency response curves are required, as opposed to relying on the response curve unique to each service provider?
29	55	Section 4 – Proposed Curves	In both the Dynamic (Fig. 18) and Static (Fig. 19) curves provided, no value, or value range, has been suggested for the "y% FFR" value. Further the curves are very generic with little detail on the potential variation in each.	The TSOs are asked to provide details on the potential values for "y% FFR" as per Fig 18 and Fig. 19. Further the TSOs are asked to advise the variations possible in the indicative curves outlined.
30		General	The TSO proposal is to keep the DS3 Tariff Rates fixed for a period of time, and to allow the opportunity to hit the SEMC proposed DS3 revenue glidepath through the use of Scalars as outlined in these consultation papers.	The TSO's are asked to consider the possibility of increasing the base tariff rates (possibly along with new Scalar values) as a means of providing suitable incentives to more DS3 providers than that outlined in the current proposal.

31		General	The TSO proposal is to keep the DS3 Tariff Rates fixed for a period of time, and to allow the opportunity to hit the SEMC proposed DS3 revenue glidepath through the use of Scalars as outlined in these consultation papers.	The TSO's are asked to explain if the Base Tariff rates are to remain fixed, and the Glide Path with increasing revenues is to be followed, does the TSO envisage Scalars increasing over time, or do they simply envisage an increase in the volume of each DS3 services required over time? Back up information informing this view is requested.
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