



Energy for  
generations

[esb.ie](http://esb.ie)

Giniúint agus Trádála  
Two Gateway, Bóthar An Phoirt Thoir  
Baile Átha Cliath 3, D03 A995, Éire  
Fón +353 1 676 5831

Generation and Trading  
Two Gateway, East Wall Road  
Dublin 3, D03 A995, Ireland  
Phone +353 1 676 5831

## **ESB Generation and Trading Response:**

### **Consultation on System Services Future Arrangements High Level Design Consultation (SEM-21-069)**

**21<sup>st</sup> October 2021**



Energy for  
generations

esb.ie

Giniúint agus Trádála  
Two Gateway, Bóthar An Phoirt Thoir  
Baile Átha Cliath 3, D03 A995, Éire  
Fón +353 1 676 5831

Generation and Trading  
Two Gateway, East Wall Road  
Dublin 3, D03 A995, Ireland  
Phone +353 1 676 5831

## Contents

1. Introduction.....	1
2. Executive Summary .....	1
3. High Level Comments on Consultation Paper.....	3
3.1 Transitional Arrangements and End Goal .....	3
3.2 Internal inconsistencies with the other elements of the market .....	4
3.3 Investor confidence .....	6
3.4 The need to change current thinking (market segmentation) .....	7
4. Comments on Proposed Decision Paper SEM-21-027 .....	8

## 1. INTRODUCTION

ESB Generation and Trading (GT) welcomes the opportunity to respond to the Regulatory Authorities consultation on System Services Future Arrangements High Level Design Consultation (SEM-21-069). The purpose of this Consultation Paper is to seek the views of stakeholders on the possible High Level Designs for the System Services Future Arrangements, to apply from 1 May 2024. ESB GT's response is laid out in three sections; the first is an executive summary of ESB GT's response to the Consultation Paper, the second section lists ESB GT's comments on the High Level Design proposals and the third section lists ESB GT's answers to the Questions in the Consultation Paper.

ESB GT also welcomes the opportunities afforded by the RAs to engage with them on this matter as it continues to be developed and ESB GT recognises the challenge the RAs have to deliver a sustainable solution in a limited timeframe. ESB GT continues to commit to working with the RAs to develop effective proposals to support the transition to the low carbon world that the RAs' DS3 programme to date has ensured has been fast tracked.

## 2. EXECUTIVE SUMMARY

Firstly, ESB GT would like to acknowledge the RAs comments in the workshop in that they decided not to make any firm commitments in the High Level Design phase on the back of the industries responses to the scoping paper. As a result, the High Level Design is light on information and ESB GT has made assumptions about some of the details that may underpin the proposals for this response.

**An important feature when trying to design the Future System Service market is the identification of what the market is trying to solve i.e. what products, volumes and timing does the TSO require.**

Unfortunately, this information has not been provided in the Consultation Paper but we know that it will be affected by, network investment (or lack thereof), the uncertainty of wind and its significant impact on operationally balancing both the power demand and stability of the system across possibly very different timeframes. Once this is identified it is necessary to ensure the market design developed is based on a vision of the system services required in the 2030s with minimal time limited and targeted interventions until the end goal market design is understood and agreed even before it is considered fully implementable. In doing this, **there is a need to remain flexible with product definition so that we can accommodate system services not yet identified (such as congestion management) so to ensure that there are no inherent barriers to technologies that will be available in the future.** The Pathway to a Net Zero world should be designed with the view to future needs rather than being based on the current generation fleet, current experiences and any perceived concerns.

Another element of the high level needs to consider is how this system service market will interact with the other markets (RESS, CRM and Energy Market). This is a fundamental consideration that needs to be undertaken to **ensure the market as a whole is capable of working together and create the most efficient signals and the most economic outcomes through providing the relevant choices to those best placed to either invest in or manage this system.**

From the High Level Design proposed in the Consultation Paper ESB GT has concerns that the Future System Service Arrangements does not create a market that will provide clarity for investors or provide confidence to enter the market. While it may not be possible to provide investor certainty from the system service market the investor should feel confident that there is an opportunity to make a return on an investment. This confidence ultimately comes from the investment climate that the RAs create through their market design and how sustainable and forecastable its elements are. Whilst consumer value is an important criteria for assessment, **ESB GT would urge the RAs to reflect upon the alignment, Investor Confidence**

**and System Need/Commitment when assessing a proposed framework that will provide the foundation for the low carbon world with its related social benefits.** The cost to consumers now should not dilute these three criteria as it could result in a greater cost to the consumer in the future (i.e. lost investment and missed targets).

The current thinking that all revenue streams/products sold in the CRM, DS3, RESS, Cap & Floor/RAB and Energy Market are substitutes needs to be reconsidered. These products are separate with different values for the TSO and different consumer groups and can be provided by different single use technologies that do not necessarily provide other products. Therefore, **it is vital that each market can provide an investment signal for its own entrants and a cost approach to the total market is not used to drive investments into particular and perhaps known technology types alone.** ESB GT is concerned with the continued approach of including DS3 revenues in the BNE revenue calculation. The inclusion of DS3 revenues in the BNE Net CONE methodology / USPC process removes any incentive for participants to invest in DS3 products. ESB GT believes the design of any market (DS3, energy markets and CRM) must be done in a holistic approach and not in a silo. The current procedures for the calculation of the BNE Net CONE and USPC strips away the incentive to provide additional system services when the DS3 commercial advantage is removed from the potential capacity payment this is further magnified for plant that are being processed to get a USPC. If the net sum position of a plant's "allowable" cost recovery, due to BMPCOP, NIV tagging in the Balancing Market and BNE Net Cone/USPC less DS3 revenue, is zero the incentive to invest in other services no longer exists. The cost based regulation approach applied to I-SEM, DS3 and CRM means any DS3 investment decisions results in a zero sum game as any impact on revenues from a DS3 investment is offset in the CRM IMR bid determination for technologies that may efficiently service all markets. ESB GT believes a more holistic value based approach must be applied to I-SEM, CRM and DS3 in order to ensure customers get the full benefits from capital investment. For the reasons described above, **ESB GT does not believe that there is a single BNE Net CONE that can exist for both the DS3 and CRM market.**

We have only just gone through a recent market reform and to some extent are still in the transition years of the CRM. It is important that we learn from these experiences and incorporate them into the design of this market. For ESB GT one of the **key learnings from ISEM and CRM is the need for an efficient transition from an existing mechanism to a new mechanism.** Unfortunately, this is an area that the High Level Design Consultation Paper has missed and needs to be considered alongside the detailed design phase.

ESB GT believes the auction design should be one in which all the system service products are auctioned, as through auctions the true value of the product is determined, and that short term targeted interventions are minimised and the reasoning made transparent. **Considering the generation fleet that will potentially be available to the TSO well into the 2030s and what is currently available, and a desire to auction all products, a hybrid approach (unit commitment products pre DAM and reserve products post DAM) to auctioning the system service products is required.** Under such an approach it may be possible to reform the current system service to result in ex-ante markets that deliver clear signals to investors, reliably deliver the required services to the TSOs, and interact with the energy markets to deliver a close to final physical dispatch and ability to flex as needed.

Finally, ESB GT wants to highlight that this response is based on the detail that has been provided in this consultation paper and scoping paper. The views in this response could change based on any future information should it be provided by the TSOs or the RAs on the volumes and system services required going forward. ESB GT retains the right to change its views depending on the publication of the information on the TSOs' future requirements and future arrangements for other markets like the CRM.



### 3. HIGH LEVEL COMMENTS ON CONSULTATION PAPER

In this section ESB GT has highlighted some of its concerns with this consultation and areas of focus that the detailed design will need to address.

#### 3.1 Transitional Arrangements and End Goal

ESB GT is of the view that at a high level the end goal of the System Service Market is a 2030 framework that allows the operators to manage a more diverse and variable transmission and distribution network, facilitate the introduction of new investment/technologies capable of solving the system service needs of the operators, result in a clear set of current and emerging service requirements, an ex-ante markets that deliver clear signals to investors, reliably deliver the required services to the TSOs, and interact with the energy markets to deliver a close to final physical dispatch.

Clear and defined arrangements are necessary to provide sufficient certainty of process that should hopefully increase investor confidence and lead to the deployment of system services and technologies in the 2020s that will support the increasing levels of non-synchronous penetration in the 2030s. For this reason, it is necessary to ensure the market design developed now is based on a vision of the system services required in the 2030s with minimal short term targeted interventions until the end goal market design is understood and agreed even before it is considered fully implementable. In doing this, there is a need to remain flexible with product definition so that we can accommodate system services not yet identified so to ensure that there are no inherent barriers to technologies that will be available in the future. The Pathway to a Net Zero world should be designed with the view to the future needs rather than what the market should be for the current generation fleet. To be in a position to do this greater information from the TSOs in regards to their requirements is necessary. Until this information is provided participants are at a disadvantage in identifying the market design that is needed and how we transition to that design. Therefore participants may need to reflect on positions following the publication of such information.

In ESB GT's view this Systems Services Future Arrangements Project is about maximising the benefits to the future customer by evolving the current DS3 services so that the right signals are sent to ensure higher penetrations of non-synchronous generation are possible in the future, and not about achieving the minimal compliance with EU rules at the cheapest cost to the consumer today. This inter-generational transfer of value and how it is funded could be considered in network price control review or other funding methods but is key to ensuring that the journey proceeds at the right pace to ensure that the societal benefits of low carbon, as identified by COP26<sup>1</sup>, can be realised.

If the primary focus is on cost there is a danger that the system services market could experience similar issues with the failure of the Capacity market leading to a lack of efficient entry and exit signals and thus investments that are now being corrected by side contracts or emergency generation discussions. The most efficient approach is to design for the long term which may require some extra costs today but ultimately lead to greater benefits in the future rather than a false economy today to the detriment of the future and ultimately end up having to spend more over the long term trying to catch up on lost ground.

Alongside all of the above issues the High Level design should also consider the transition approach to moving from the current DS3 mechanism to the Future System Service Arrangements. We have only just gone through a recent market reform and to some extent are still in the transition years of the CRM. It would be foolhardy not to take the learnings from this experience. For ESB GT one of the key learnings from ISEM and CRM is the need for an efficient transition from an existing mechanism to a new mechanism. This is an area that the High Level Design Consultation Paper has unfortunately missed and needs to be considered alongside the detailed design phase. To not address the transition period may ultimately lead to years of

<sup>1</sup> [COP26 Goals - UN Climate Change Conference \(COP26\) at the SEC – Glasgow 2021 \(ukcop26.org\)](https://www.ukcop26.org/)

missed investment, inefficient exit, future inflated costs and a failure to achieve the decarbonisation and renewables targets in the future (2030s and further).

ESB GT believes a successful market design is one that;

- (1) Delivers a sustainable pathway to a net zero,
- (2) Delivers a market that can be invested in (investor confidence as well as clarity),
- (3) Secures a transition and prevents hiatus in investment before the future System Service Arrangements are implemented,
- (4) Delivers a market that creates physically feasible outputs that the TSOs can use,
- (5) Creates effective incentive signal and commitment obligations, and
- (6) Makes sure the right person pays the value of the products.

Considering all of the above, ESB GT is concerned that the proposed high level design in the consultation paper does not identify the needs of the future system service market and ultimately whether or not the proposed System Services Arrangements will achieve their goal.

ESB GT wants to highlight that this response is based on the detail that has been provided in this consultation paper and scoping paper. The views in this response could change on the information that should be provided by the TSOs on the volumes and system services required going forward. ESB GT retains the right to change its views depending on the publication of the information on the TSOs' future requirements and future arrangements for other markets like the CRM.

### 3.2 Internal inconsistencies with the other elements of the market

A missed element of the high level Consultation Paper is how this system service market will interact with the other markets (RESS, CRM and Energy Market). This is a fundamental consideration that needs to be undertaken to ensure the markets as a whole are capable of working together while being able to create the independent investment signals.

Below are a few thoughts on issues that may need to be considered when assessing the amalgamation of the future System Services into ISEM and can be defined as sequencing of markets with their interrelatedness, commitment with related payments and technical feasibility.

- Energy Market
  - How should the T&SC settlement of the Balancing Market treat a unit that has taken a System Service position but was unable to trade to an ex-ante position? Under the current rules the unit would be exposed to the Balancing Market price and as it has a FPN larger than its QEx it will receive the CIMB and no CPremium. This approach makes sense for a unit when considering the energy market in isolation however it is not clear if a unit that has taken a position in the system service auction should receive the same treatment. Further consideration may be required for this in the detailed market design phase.
  - The possibility of bidding caps was alluded to in the consultation paper. ESB GT believes the only form of price cap should be those provided for in the CEP/EBGL i.e. technical limits for IT systems. From the consultation paper it is clear that products that are deemed to be ready to be auctioned are competitive. Therefore, it is unclear why there is a need for bidding caps on participants. Additionally, once these system services are procured through an auction it is unclear if there will still be a need for a BCOP/BMPCOP as market power

concerns due to locational issues in the ISEM should be addressed via the System Service Auctions. Included in the detail design should be a review of the interacting markets and current restrictions and whether the restrictions are still proportionate or effective.

- The current proposal of a commitment requiring a provider to reflect the System Service auction position in the Final Physical Notification (FPN) needs to be considered in combination with the SEMC decision<sup>2</sup> *“that an obligation should be placed on participants requiring that their PN submissions should at all times be the participant’s best estimate of its intended level of generation and/or consumption, reflecting its intended metered quantities (excluding any accepted offers and bids) and technical characteristics, given also the requirement that the metered quantities (excluding any accepted offers and bids) reflect also the ex-ante contract position [emphasis added] at gate closure”*. It may not be possible for a generator (including non-conventional assets) to have a FPN that is reflective of the traded market position (QEx) and a system service position (SS). The timing of the auction and other aspects like the CRU decision on CEP Article 12 and Article 13 may have significant effects on the ability of generators to meet both obligations. It is not clear if an obligation to ensure the FPN is reflective of the SS auction position and the QEx is possible and it may be, for example, that the FPN must reflect the combination of the SS auction position and QEx i.e.  $FPN = QEx + SS$  rather than  $FPN = SS = QEx$ .
- CRM
  - The current mechanism in the CRM is that any unit providing replacement reserve should not be exposed to a CRM non performance charge (via a System Service flag). This was an appropriate measure for the unauctioned regulated tariffs that are currently in place as the System Service provider has no choice on whether it uses its unit to provide energy (MWh) or System Services (MVar). However, under the Future System Service Arrangements where all products are auctioned it will be the participant’s choice to provide either energy or system services or both and therefore the retention of the SS flag may no longer be warranted. There may be a need to treat system services procured via the System Service Auction and Balancing Market differently but also ensuring that there is no freeriding by the TSOs.
- RESS
  - The System Services Market design may want to consider the consequences of the CRU decision on the CEP Article 12&13. It is possible that this decision could influence the High Level Decision for the System Service Market and auction sequencing with the DAM.
  - For CEP article 12, it is unclear what approach should apply to dispatching down a non priority dispatch wind unit which is providing a System Services product, as per the auction outcome, and a priority dispatch unit not providing a System Service. Will the Non Priority Dispatch wind unit be dispatched down to a min level allowing it to provide the system service and then the priority dispatch wind unit takes the next MWh of dispatch down? Will the TSOs system be able to distinguish between this instance/tie breaking event?

---

<sup>2</sup> ISEM Energy Trading Arrangements Detailed Design Markets Decision Paper (SEM-15-065)



Alongside all of the above considerations, how this market (RESS, CRM, Energy and System Services) can be accommodated going forward needs to be reviewed by the SEMC as there are other issues that need to be addressed to ensure the market as a whole can operate;

1. CEP Art 12 scheduling and dispatching non priority dispatch wind units,
2. inability of the TSOs' systems to accommodate batteries into ISEM (not allowed to submit negative PNs),
3. unknown implementation of sync comp,
4. EBGL compliance,
5. Implementation of MARI & TERRE, and
6. over reliance on ABB where modifications can now take up to 12/18 months to be implemented,

The above is a quick review of potential internal inconsistencies (Alignment as referred to in the Consultation Paper) that may exist between all of the markets given the high level detail provided in the consultation paper. Clearly these comments are based on the level of detail in the consultation paper and ESB GT's assumptions and interpretation of some elements. If further communication is required on these, ESB GT are available to discuss the above in greater detail when the detailed design is further advanced.

### 3.3 Investor confidence

While it may not be possible to provide investor certainty from the system service market the investor should feel confident that there is an opportunity to make a return on an investment and contracts will be honoured. This confidence ultimately comes from the investment climate that RAs create through their market design and the level of interventions they may introduce. From the High Level Design proposed in the Consultation Paper ESB GT has concerns that the Future System Service Arrangements do not create a market that will provide clarity for investors or provide confidence to enter the market.

Below are some high levels comments on our concerns;

- **Risk allocation** - As identified by the TSOs in their response to the SEM-21-026 , "risks that are within the control of the investor should be managed by the investor". Unfortunately, through proposal in the Consultation Paper like firm access, obligations and lack of clarity on the product procurement the High Level design doesn't address these concerns and appears to be placing unmanageable risks on generators. The level of risk sharing between investors and society as a whole needs to be balanced to incentivise an efficient and dynamic outcome.
- **Segmenting the market** - ESB GT understands the RAs decided not to make any firm commitments in the High Level Design phase on the back of the industries responses to the scoping paper. As a result it is unclear what the layering and procurement of System Services may actually look like and therefore ESB GT have had to make some assumptions in identifying potential issues. On page 31 of the Consultation Paper, it references for the layered approach; "*it is noted that this builds upon the Fixed Contract framework set out in SEM-21-021, that is currently being explored by the TSOs with a view to procuring inertia and related services initially*". It is still unclear what this approach is and whether it will attract investment in the entire System Services market or segment the System



Services market by only procuring one product at a time. Consideration of this approach and the signal it sends for investment and whether it provides the best outcome for the TSOs is required.

- **Lack of commitment on TSOs/RAs** - ESB GT agrees that a commitment obligation (long term delivery and auction delivery) should be placed upon any participant that is successful in the daily auctions or longer term arrangements. However, there also needs to be an obligation on the bodies (TSOs and RAs) that are in control of the procurement and changes to the systems that enable higher levels of non-synchronous penetration. No investor should be left exposed to a lack of progress and commitment from the TSOs and RAs who have an asymmetric information advantage at any point in time.
- **Regulatory Interventions (Bidding Cap)** - The possibility of bidding caps was alluded to in the consultation paper. ESB GT believes the only form of price cap should be those provided for in the CEP/EBGL i.e. technical limits for IT systems. From the consultation paper it is clear that products that are deemed to be ready to be auctioned are competitive. Therefore, it is unclear why there is a need for bidding caps on participants. This approach would be a signal to investors that there is a disproportionate regulatory desire to push prices down making the investment environment more risky.
- **Regulatory Intervention (Budgetary Cap)** - If the intention of the RAs is to move the procurement of system services to a market based approach it is unclear how a budget cap can be applied. As per the CEP and EBGL the price of the auctioned products should be determined by supply and demand and should not be polluted by the imposition of a budgetary cap. If we are to deviate from market fundamentals, as per the CEP & EBGL, there needs to be a clearly defined and justified reason for doing so. In ESB GT's view this Systems Services Future Arrangements Project is about maximising the benefits to the future customer by evolving the current DS3 services so that the right signals are sent to ensure higher penetrations of non-synchronous generation are achieved in the future, and not about achieving the minimal compliance with EU rules at the cheapest cost to the consumer today. If the primary focus is on costs today there is a danger that the system services market could experience the shortcomings currently being displayed by the CRM. This would not be an investment signal for new participants. ESB GT does however appreciate that a balance of costs and transfer of charges does need to be considered.

### 3.4 **The need to change current thinking (market segmentation)**

ESB GT is concerned with the continued approach of including DS3 revenues in the BNE revenue calculation. The inclusion of DS3 revenues in the BNE Net CONE methodology / USPC process removes any incentive for participants to invest in DS3 products. ESB GT believes the design of any market (DS3, energy markets and CRM) must be done in a holistic approach and not in a silo. ESB GT is of the view that the current procedures for the calculation of the BNE Net CONE and USPC strips away the incentive to provide additional system services when the DS3 commercial advantage is removed from the potential capacity payment this is further magnified for plant that are being processed to get a USPC. If the net sum position of a plant's "allowable" cost recovery, due to BMPCOP, NIV tagging in the Balancing Market and BNE Net Cone/USPC less DS3 revenue, is zero the incentive to invest in other services no longer exists. The cost based regulation approach applied to I-SEM, DS3 and CRM means any DS3 investment decisions results in a zero sum game as any impact on revenues from a DS3 investment is offset in the CRM IMR bid determination for technologies that may efficiently service all markets. ESB GT believes a more holistic value based approach must be applied I-SEM, CRM and DS3 in order to ensure customers get the full benefits from capital investment. For the reasons described above, ESB GT does not believe that there is a single

BNE Net CONE that can exist for both the DS3 and CRM market. The investment signal needs to be effective in providing the investors with the choice to choose the most efficient technology to deploy in the most competitive fashion and to serve the markets where the product is most valued.

While previous SEM and ISEM market design thinking evolved around the substitutive ability of products provided by thermal assets there is a need to adopt a forward looking, technology neutral approach that remains agile. We are now moving into a market where new technologies, different to conventional assets, and system improvements to system services provided by existing assets are required to help achieve the high levels of non-synchronous penetration. With this new regime comes the need to think of products provided by assets as complementary rather than substitutes and in need of different revenue streams. Each independent market needs to be structured in such a manner that a signal is available to all technologies to either enter or exit or improve system service provisions. For example, sync comps are not capable of receiving revenues from the CRM or Energy Markets and therefore the system service market is the only remaining market left to provide an investment signal/ route to market. The current thinking of CRM (MW), Energy Market (MWh) and System Service (MVar) as needing to be substitutive will fail to deliver the signals for the newer technologies and improvements in existing assets. It is ESB GT's view that the signals from these markets need to be considered separately and not blurred together as it diffuses the true value of each product and their importance.

#### 4. COMMENTS ON PROPOSED DECISION PAPER SEM-21-027

In this section ESB GT has provided answers to the questions in the consultation paper.

**Question 1: Do stakeholders consider that the commitment to putting these arrangement in place on an enduring basis, at least to 2030, represents sufficient certainty of process?**

A firm non-wavering commitment from the RAs and TSOs to creating a system services market that ensures a secure operation of the electricity system with high levels of non-synchronous generation (>65%) is vital to achieving the Renewable Energy targets of not just 2030 but also the pathway to a Net Zero world. The decisions that we make now are not just about the cost to the present day consumer but more importantly the benefits that society will receive in the future and will have an impact on the constitution of the fleet that will exist in the 2030s. The focus of this question may be better targeted on the confidence in lead time that the TSO needs to deliver the necessary targets into the future. This in turn suggests that understanding the length of long term contracts for new assets (including investments to improve system services in existing asset), when it will be procured and the commitment given is key rather than restricting the term of the framework to six years (implemented in 2024 and finished in 2030).

ESB GT agrees that the putting in place clear and defined arrangements are necessary to provide sufficient certainty of process that should hopefully lead to the deployment of system services and technologies in the 2020s that will support the increasing levels of non-synchronous penetration in the 2030s. For this reason, it is necessary to ensure the market design developed now is based on a vision of the system services required in the 2030s with minimal "interim" interventions until the market design is implemented in its desired state. An element that was touched upon in the RA workshop, and one that ESB GT supports, is the need to remain flexible with product definition so that we can accommodate system services not yet identified.

While previous SEM and ISEM market design thinking evolved around the substitutive ability of products provided by thermal assets there is a need for a rethink of this approach. We are now moving into a market where new technologies, different to conventional assets, and system improvements to system services provided by existing assets are required to help achieve the high levels of non-synchronous penetration.



And with this comes the need to think of products provided by assets as complementary rather than substitutes and in need of different revenue streams. As discussed in section three of this response, the market needs to be structured in such a manner that a signal is available for all technologies and improvements in system service provisions and not closed out to assets who don't participate across all markets. For example, sync comp are not capable of receiving revenues from the CRM or Energy Markets and therefore the system service market is the only remaining market left to provide a signal. The current thinking of CRM (MW), Energy Market (MWh) and System Service (MVAR) as needing to be substitutive will fail to deliver the signals for the newer technologies and improvements in existing assets. It is ESB GT's view that the signals from these markets need to be considered separately and not blurred together as it diffuses the true value of each product and their importance.

At a higher level, whilst consumer value is an important criteria for assessment ESB GT would urge the RAs to reflect upon Alignment<sup>3</sup>, Investor Confidence and System Need/Commitment when assessing a proposed framework. The cost to consumer now should not dilute these three criteria as it could result in a greater cost to the consumer in the future (i.e. lost investment and missed targets with increased costs as deadlines and related societal risks and penalties tighten).

**Question 2: What are stakeholders views on the options and recommendations presented for qualification/registration? Are there further options that may be considered?**

At first glance option 2 (rolling application process) would appear to be a more favourable approach, however, ESB GT has concerns over the success of implementing this option. The experience to date on the gated windows process, for processing qualifications (CRM, ECP and DS3), has shown that this process delivers consistent and dependable timeframes that investors and existing participants can rely on. There would be concerns on the ability of the TSOs to resource a rolling application process compared to option 1 (gate tendering process – quarterly) and whether the cost/benefit of option 2 outweighs option 1.

Without insight from the TSOs on their view of either option and how they could achieve it, ESB GT is of the view that Option 1 Quarterly Gate Tendering Process is probably the more favourable and dependable approach.

**Question 3: What are stakeholders views on the proposed formalisation of the QTP?**

ESB GT supports greater transparency and engagement between the TSOs/RAs and Industry when determining the Qualification Trial Process (QTP). ESB GT would like to highlight that when considering a QTP a flexible and pragmatic approach is needed. Any QTP should not unfairly disadvantage a first mover as to do so could stifle a nascent technology or place an unnecessary administrative burden on the TSOs and participants.

ESB GT agrees with the TSOs view from the second workshop that greater clarity on the funding mechanisms for the QTP is required.

<sup>3</sup> As per the Consultation Paper; "the SEM Committee will seek to ensure appropriate alignment between the markets in energy, capacity and System Services, along with all other relevant revenue streams, to ensure an efficient overall outcome for consumers"



**Question : What are stakeholders views in terms of the introduction of a single System Services Code?**

ESB GT is supportive of the SEMC proposal for a System Service code to be developed to replace the current multiple System Services document.

**Question 5: What are stakeholders views on the options in terms of governance of rules changes?**

Considering the importance the System Service market will play in supporting a high non-synchronous penetration in the SEM, it is appropriate for industry to have the ability to proactively engage in the rules and any potential changes. Option 1 Current Approach with Additional Oversight retains the downside that participants are not encouraged to actively engage with the rules to improve the rules to further the objective of the market and this obligation ultimately falls on the TSOs.

From ESB GT's experience on the T&SC Modifications Committee, Grid Code Review Panel, SEMOpX Committee and involvement in the CRM modification consultation process, the panel approach as per Option 2 (System Service Code Panel) is the most suitable for the System Services market. This type of forum allows for greater engagement and discussion on modifications and ultimately places a greater obligation on participants (elected to the panel) to ensure rules changes are appropriate for the industry as a whole. It is ESB GT's view that this approach, which provides an industry position to the RAs, ultimately results in more efficient and rounded modifications.

The SEMC are correct to acknowledge the cost to the industry for such a panel and whether it is possible to merge some panels to reduce the burden, however, ESB GT believes it is too early to identify if this System Service Code Panel (SSCP) could be merged with either the Grid Code Review Panel or the T&SC Panel.

From experience to date, ESB GT is supportive of Option 2 (System Service Code Panel) as it is a more inclusive approach that should result in a more efficient set of rules and that it should be viewed as a stand alone panel until greater experience of the workload associated to the SSCP is determined and whether it can be amalgamated into the T&SC or Grid Code.

**Question 6: Do stakeholders have views on the potential to amalgamate different Panel meetings?**

Please see answer to Question 5.

**Question 7: What are stakeholders views on the funding arrangement proposals?**

To fully understand the potential impact and consequences of either option greater assessment of the options is required. ESB GT is unsure of Option 3a and believes greater detail is required before it possible to comment on the appropriate funding arrangement proposals.

**Question 8: What level of involvement should the DSO/DNO have in the governance process?**



The Clean Energy Package envisages an important role to be played by demand side response in facilitating the integration of renewable sources of generation. To do this wholesale market rules are required to facilitate the development of, and investment of, more flexible generation, including demand response and this should include the ability of demand side units (DSU) to freely participate and be dispatched in all available energy markets at all available timeframes. Considering this potential increase in distributed prosumers in the future it would seem a reasonable approach to involve the DSO/DNO to the level required that will enable these new participants to enter the market retaining a level playing field for all system service providers.

**Question 9: How should the interactions with distribution connected parties be governed?**

From a customer's (in this example that is a technology that can provide system services) point of view the approach that facilitates the customer, reduces the burden on the customer and enables the full participation in the System Services market should be implemented.

There is limited information as to how each of these options work so the following comments are high level. Even though Option 1 (provider led) does look like offering the provider greater flexibility it is questionable how much of a burden engaging with two bodies rather than one will have on small distributed providers trying to enter the market. If according to the Consultation Paper Option 3 (TSO-Led) has the potential to impede the DSO and DNO from operating the distribution networks securely, and this is an area of growth in the future markets, it would appear that Option 3 is not a feasible option either.

From ESB GT's view there is insufficient detail provided to fully determine the pros and cons of each approach and therefore we are not in a position to identify a preferred option.

**Question 10: Are there any further considerations for the High Level Design of the Governance Arrangements?**

Please see answer to question 9.

**Question 11: What are stakeholders views on the Auction Design options and SEMC Recommendation?**

ESB GT is of the view that the end goal of the System Service Market is a 2030 framework that allows the operators to manage a more diverse and variable transmission and distribution network, facilitate the introduction of new technologies capable of solving the system service needs of the operators, result in a clear set of current and emerging service requirements, an ex-ante markets that deliver clear signals to investors, reliably deliver the required services to the TSOs, and interact with the energy markets to deliver a close to final physical dispatch.

When discussing Auction Design options it is necessary to identify what the market and auctions are designed to deliver and the timeframes needed to deliver it. From the workshops provided by the Regulatory Authorities it was clear that a market design that was a long term solution that retained a level of adaptability for any future policy development and required little regulatory changes going forward was the most preferred. In the comments below, ESB GT has taken the approach the final auction design is one that

procures all system services via a market-based auction approach and that all of the competitive and structural (locational) issues with doing this have been solved. Cognisant that it might not be possible to have the market design starting point aligned to this, it is an appropriate approach to design the end market and apply necessary interim interventions at the start that will solve certain “constraints” within the market design and then remove these interventions, based on a set of measurable criteria, when possible. It should go without saying, such interventions should be minimal in their impact, targeted in what they are addressing and short term in nature.

From the three options provided, Option 3 looks the least appropriate for meeting the assessment criteria set out in the consultation paper, as per the SEMC’s comment, and one that ESB GT would not support. Considering this, the rest of the response will focus on assessing Option 1 and Option 2.

In light of the view that all products should be auctioned and this is what the design should be aiming to achieve and accommodate (and assumptions on other elements in the consultation paper), the following table of pros and cons for Option 1 (Post DAM Day Ahead System Service Auction) and Option 2 (Pre-DAM Day Ahead System Service Auction) was identified;

Auction Design	Pros	Cons	Interim Comments (non-auctioned products)
Option 1 (Post)	<ul style="list-style-type: none"> <li>Compliant with EBGL</li> <li>More accurate operating reserve requirement as LSI known from DAM</li> <li>Clear price signals</li> <li>Ability to adjust PNs for operating reserve products</li> <li>Market power concerns addressed by REMIT and longer term contracts</li> </ul>	<ul style="list-style-type: none"> <li>Possibility for more PNs than demand (SS winner has no one to trade with following DAM)</li> <li>Forecast risk for generator without SS unit commitment position known in advance</li> <li>Market still driving unit commitment decisions which may not align with system</li> </ul>	<ul style="list-style-type: none"> <li>Interim measure of “regulated tariff” for unit commitment products may not result in market schedules moving closer to physically feasible schedules</li> <li>If only auctioning reserves this is a more appropriate option</li> </ul>
Option 2 (Pre)	<ul style="list-style-type: none"> <li>Compliant with EBGL</li> <li>Clear price signals</li> <li>Market power concerns addressed by REMIT and longer term contracts</li> <li>Reduced risk as generators already know their physical system service requirements and may be better suited to match SS obligations to DAM PNs</li> <li>Possibility of unit commitment decisions aligning the market and system closer together</li> <li>System starting point for market and therefore more physically feasible PNs and less DBC for customer</li> </ul>	<ul style="list-style-type: none"> <li>Potential to over/under procure operating reserves as forecasts are in advance of LSI scheduling</li> </ul>	<ul style="list-style-type: none"> <li>Interim measure of “regulated tariff” for unit commitment products may not result in market schedules moving closer to physically feasible schedules</li> <li>If unit commitment system service products are not envisaged to be auctioned this approach is not suitable</li> </ul>



In either of the options there is a real need for any auction procurement to have a locational element when selecting winners. If there is no locational element (like a Locational Capacity Constraint Area) to the auction there is a real risk that the System Service Auction will not deliver on the TSOs requirements and ultimately leave the market in the same position that it is in today i.e. constraining down unit and constraining on other units and ultimately increasing the cost to the consumer.

Considering the pros and cons of each option, ESB GT has tried to understand the needs of the TSO for physically feasible PNs and how the auction design can achieve this. It is unclear if more or fewer of the 14 system services, currently identified by the TSOs, will still be required in 2030 so it is necessary to ensure that the auction design is flexible enough to deliver in an uncertain future. Of the 14 current system services, as shown in the figure below, some of these can only be provided by generating units that are on load whereas other services don't depend on the unit commitment status of the technologies (BESS, sync comp, technology not yet to market etc).

Table 1: DS3 System Services

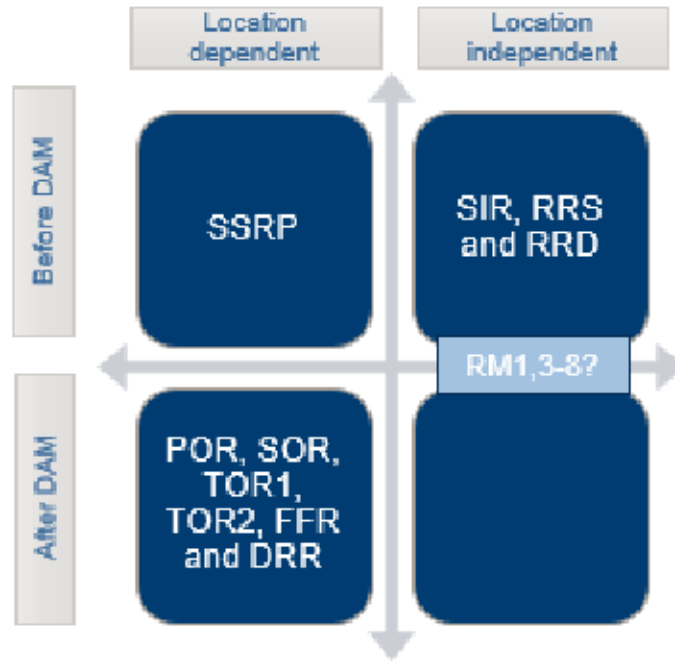
Service	Service Name
<b>SIR</b>	Synchronous Inertial Response
<b>FFR</b>	Fast Frequency Response
<b>POR</b>	Primary Operating Reserve
<b>SOR</b>	Secondary Operating Reserve
<b>TOR1</b>	Tertiary 1 Operating Reserve
<b>TOR2</b>	Tertiary 2 Operating Reserve
<b>RRD</b>	Replacement Reserve (De-Synchronised)
<b>RRS</b>	Replacement Reserve (Synchronised)
<b>RM1</b>	Ramping Margin 1 Hour
<b>RM3</b>	Ramping Margin 3 Hour
<b>RM8</b>	Ramping Margin 8 Hour
<b>SSRP</b>	Steady State Reactive Power
<b>DRR</b>	Dynamic Reactive Response
<b>FPFAPR</b>	Fast Post Fault Active Power Recovery

According to some consultant reports<sup>45</sup> the end goal of a net zero world envisage system service products being supplied by non-energy technologies. However, we may be some time away from achieving this and therefore the auction design must be able to procure the services in an efficient manner from the current generation fleet and with sufficient lead time when new technologies and the market have matured sufficiently. Therefore, it may be possible to view the 14 system service products in two strands; unit commitment driving products and PN adjusting products. ESB GT believes that this approach may give the TSOs the necessary reserve and also flexibility to secure the resilience in the face of forecasting errors that will exist. Additionally, a long term auction with contracts will be required to underpin investments in new system services capacity that the TSOs may require.

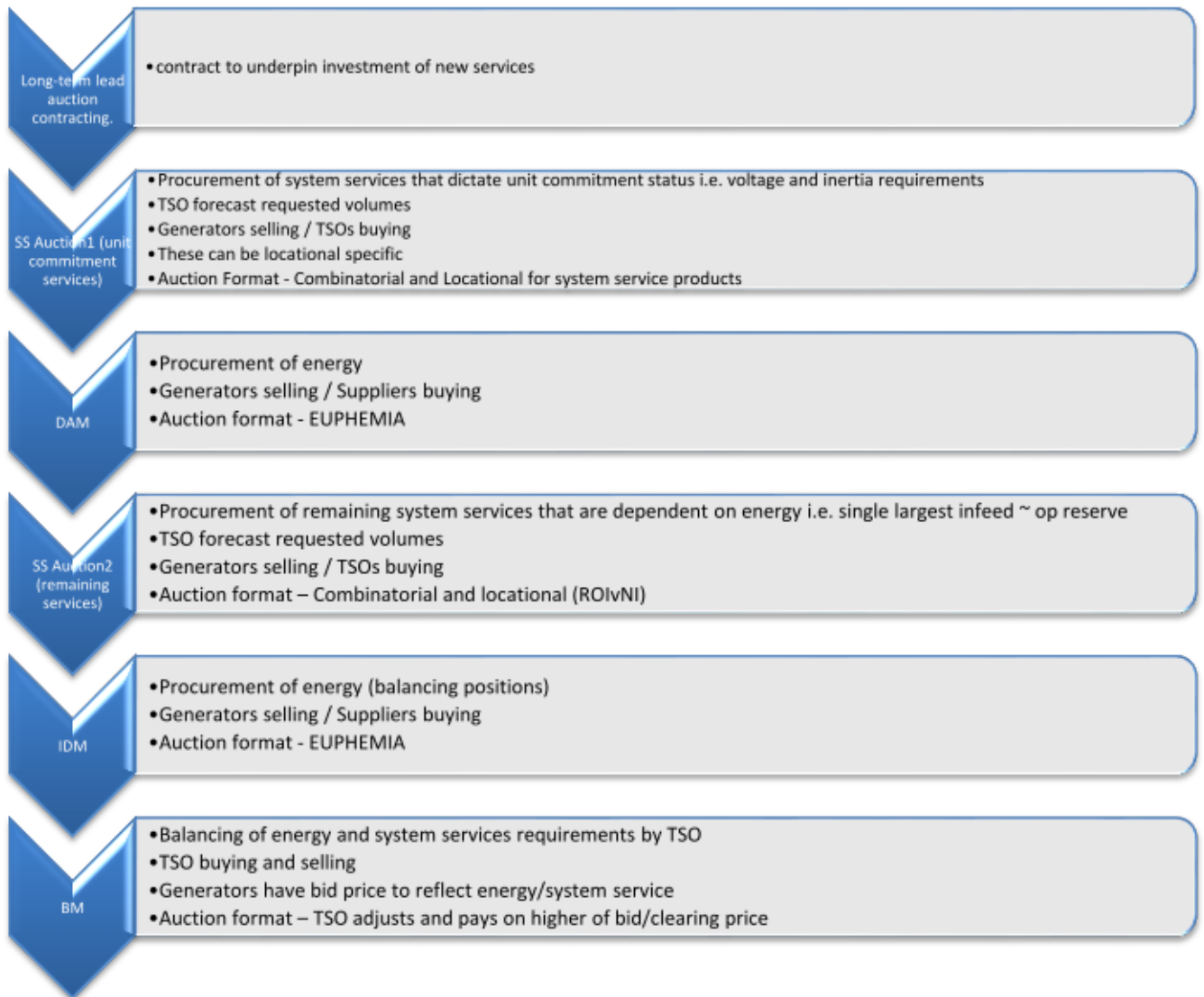
As shown in the figure below, the current products that could be viewed as driving/needing a unit commitment decision may be the likes of SIR, SSRP, RRD and RRS whereas the reserve products (POR, SOR, TOR1, TOR2, FFR and DRR) are products that can be provided following a unit commitment decision.

<sup>4</sup> [New report reveals endgame for fossil fuels in Irish power system \(windenergyireland.com\)](#)

<sup>5</sup> [Our Zero e-Mission Future - EA Ireland](#)



Additionally, the likes of the unit commitment system service products are locational dependent (at a granular and jurisdictional level) whereas the other products are not so location specific. Considering the interaction that some products may have with unit commitment decisions (and the implications it could have for the DAM), ESB GT believes a hybrid approach to the auctioning products may be more efficient. The figure below provides an illustration of how a hybrid approach may work within the Ex-ante markets.



ESB GT believes the auction design should be one in which all the system service products are auctioned, as through auctions the true value of the product is determined, and that short term targeted interventions are minimised and the reasoning made transparent. Considering the generation fleet that will potentially be available to the TSO well into the 2030s and what is currently available, and a desire to auction all products, a hybrid approach (unit commitment products pre DAM and reserve products post DAM) to auctioning the system service products is required. Under such an approach it may be possible to reform the current system service to result in ex-ante markets that deliver clear signals to investors, reliably deliver the required services to the TSOs, and interact with the energy markets to deliver a close to final physical dispatch and ability to flex as needed.

**Question 12: Are there any further considerations in terms of the Auction Design options?**

Abuse of Market Power has been noted as being of concern but has not been set out in terms of how it will manifest. Without knowing what any intervention is trying to address may lead to unnecessary, disproportionate and potentially market distorting consequences with additional unintended possibilities not



having been taken into consideration either. Where possible market dynamics and related signals and incentives should drive out any concerns that may be perceived to exist. The importance and strength of the existing REMIT regulations is a major mitigating tool already used by the RAs when managing any abuse of market power in any market. The RAs' concerns with competition within certain locations for specific products has been highlighted in the scoping paper, however, when a product is deemed to be auction-able it is with the view that the competitive and locational issues have been addressed. Therefore, the end goal of the auction design should be an auction where the value of the product can be realised free of unnecessary interventions. ESB GT does not believe that further market power mitigation measures, like bidding caps, are required on the auctions than the already sufficient REMIT legislation and longer term contracts.

How the system services auction design and market design aligns with the other elements of the energy market is critical to ensuring there is internal consistency (Alignment criteria) not just within the System Service Market but also between the System Services Market, RESS, CRM and Energy Markets. More detail on specific elements of linkage between the markets is provided in the answer to Question 18.

As per Appendix 4 of the Consultation Paper, greater discussion is required on the auction solving method. For example, will this be a combinatorial auction solving all system service simultaneously (Langragian Relaxation of Mixed Integer Programming), or will the products be via sequential auctions procured based on most important product first or locational constraints solved first then the full volume? At this high level design stage the combinatorial auction that allow bidders to submit multiple combinations of bids, allowing them to account for the interactions between products is the most attractive option available. As discussed above, and as identified by the TSOs in their response to the SEM-21-026 , "risks that are within the control of the investor should be managed by the investor" and if it possible to mitigate risks with the implementation of an efficient IT system than this approach should be seriously considered.

**Question 13: What information is required to get a full view of the volumes requirements for System Services?**

ESB GT strongly supports the SEMC's view on the importance of the TSOs providing accurate, detailed and timely analysis on volumes for system services and ESB GT believes that effective incentives need to be created to deliver this accuracy. Clarity and transparency on the volumes required for System Services are key for sending signals to investors, however, more importantly forecasted volumes needs to be underpinned by a commitment to procure these services and deliver on increasing the SNSP limits by the TSOs.

If there is a lack of firm commitment from the TSOs and RAs to move to SNSP targets (and relevant System Services volumes/requirements) it will undermine investor confidence in the market. Investors should only be exposed to risks that they have the ability to mitigate and future changes to the SNSP limits (with the associated impact on market conditions) are reliant on the TSOs and RAs. It may be necessary to review the step changed approach to increasing the SNSP limit to a more linear approach associated with volumes of system services procured. Such an obligation on the TSOs to commit to procure and deliver on a predefined pathway is key to achieving clarity for investors and also improving investor confidence.



**Question 14: What are stakeholders views on the development of Secondary Trading of System Services?**

ESB GT can see the benefits of having a fully functioning secondary market, however, it is difficult to see the immediate benefits of trying to design a secondary market at this stage and whether it is needed at the start when so many other elements are critical to a effective System Service market.

The complexity that could be involved in a secondary trading market is not yet know and more likely to be apparent in the detailed design phase. For example, for the system service market to be useful/efficient there is a clear need for a locational element in product procurement. But how such a locational element, or scalar product, if decided by the SEMC, could be applied in the auction and then facilitated within secondary trading is not clear. Additionally it is questionable what the liquidity in the market could be and whether it could reduce liquidity in the current IDC.

The facility to secondary trade and the potential for price caps needs to be carefully considered. If there isn't a secondary traded market participants need to be able to reflect this risk through their auction bids and not have this real risk regulated away through a price cap as this will be the only manner in which a participant can manage that exposure.

ESB GT believes it may be a more useful allocation of resources to focus on other elements of the auction design (like combinatorial solving) that may have a greater benefit to the TSOs, Generators and Customer than introducing a secondary traded market for go-live in 2024. However, without the measures to manage the risk any additional Regulatory interventions, like price caps, need to be accounted for and addressed.

**Question 15: What are stakeholders views on the proposals regarding Commitment Obligations and Scalars?**

ESB GT agrees that a commitment obligation (long term delivery and auction delivery) should be placed upon any participant that is successful in the daily auctions or longer term arrangements. However, as highlighted in the answer to question 14, there also needs to be a reciprocal obligation on the bodies (TSOs and RAs) that are in control of the procurement of service volumes and changes to the systems that enable higher levels of non-synchronous penetration. No investor should be left exposed to a lack of progress and commitment from the TSOs and RAs.

The consultation paper proposes a penalty would apply where an auction winner does not make its contracted volumes available at its FPN. It is proposed that this penalty would be made up of two parts, a fixed element and a scalar. ESB GT agrees that a penalty should apply in this instance. The fixed element is a simple approach that could be clear and transparent for an investor and existing participant, however, the scalar element would appear to be complex and an unnecessary excess punishment. Similar to the fixed element proposed in the consultation, in the Balancing Market the current penalty that a participant faces is the imbalance price which is an instantaneous penalty and reflective of the cost to the customer at that time. Experience to date shows that this approach has achieved the desired goal of incentivising participants to be balance responsible. The addition of the scalar element in the System Service Market is adding an increased layer of complexity where it is not needed. The proportionate approach to a lack of commitment is some form of fixed element only and the focus of the detailed design should be on what this fixed element is and not a scalar. Additionally, a level playing field is required for all technologies and how such a fixed element can be applied to non FPN technologies (new and priority dispatch assets) needs to be considered.



The current proposal of a commitment requiring a provider to reflect the System Service auction position in the Final Physical Notification (FPN) needs to be considered in combination with the SEMC decision<sup>6</sup> *“that an obligation should be placed on participants requiring that their PN submissions should at all times be the participant's best estimate of its intended level of generation and/or consumption, reflecting its intended metered quantities (excluding any accepted offers and bids) and technical characteristics, given also the requirement that the metered quantities (excluding any accepted offers and bids) reflect also the ex-ante contract position [emphasis added] at gate closure”*. It may not be possible for a generator (including non-conventional assets) to have a FPN that is reflective of the traded market position (QEx) and a system service position (SS). The timing of the auction and other aspects like the CRU decision on CEP Article 12 and Article 13 may have significant effects on the ability of generators to meet both obligations. It is not clear if an obligation to ensure the FPN is reflective of the SS auction position and the QEx is possible and it may be, for example, that the FPN must reflect the combination of the SS auction position and QEx that the participants wants to provide to the TSO i.e.  $FPN = QEx$  or  $SS$  rather than  $FPN = SS = QEx$ .

ESB GT does not believe that scalars should be applied to an auction product. The System Service Arrangements are now moving to a market based approach where products are auctioned and the product value should be realised through the auctions. It would be counterintuitive to layer a regulator intervention, such as the scalars, on top of the market design for auctions when no issue/barrier has been identified for needing a regulatory intervention.

Perhaps the detailed design phase will identify a need for scalars on auctioned products but at this moment in time it is not clear why a regulatory intervention is required. For unauctioned products there may be a need for some scalars (especially temporal scarcity scalars) but the first approach should be to design the market we want in the future and add on any short-term interventions in order to solve specific issues with a sunset clause that shows when any intervention will be lifted. The detailed design will need to go into how medium and long terms contracts can be provided now when certain products are not auctioned and still apply when the competition issues have been solved and the product is auctioned. More commentary is provided in the answer to Question 17 on the potential for scalars on non-auctioned products.

Under a contract scenario where regulated tariffs are applied, there may be a need for scalars to apply to the regulated tariff element of non-auctioned products. However, if scalars are to applied to auctioned products it is unclear from the consultation paper how these will be applied. For example, would it be;

1. Scalars applied to the settlement of auction winners, or
2. Scalars applied to the bid price in the auction (i.e. higher scalar ( $>1$ ) to make the unit less attractive in the merit order or a lower scalar ( $<1$ ) to make it more attractive in the merit order stacking in the System Service Auction.

Either of these approaches increases the complexity of the market, especially if the reliability scalar is the auction bid price and the other scalars are to settlement, and currently do not appear to be required for products that are auctioned.

Careful consideration is required if contracts with predefined/regulated tariffs are to be applied as there are concerns that regulated tariff based structures can dampening value identification and thus impact the investment signal. Therefore, if a regulated tariff is to be applied it would need to be value reflective (i.e. a peak max tariff) not a cost based tariff. Further consideration on this is need in the high level design.

<sup>6</sup> ISEM Energy Trading Arrangements Detailed Design Markets Decision Paper (SEM-15-065)





**Question 16: Do Stakeholders have views on the introduction of the concept of Firm Access to the System Services market?**

In this consultation paper a number of "levers" (firm access, locational scalars and long term contracts) have been suggested as a means to alleviate a locational issue to system service products. It is unclear why all of these levers would be necessary and whether or not this would be an excessive amount of intervention in the market.

The firm access idea appears to be addressing the symptom of the market (unconstrained auction outcome) rather than addressing the root cause (need for location of services in a specific area). To introduce an unconstrained auction for system services, which are locational by their nature, is to fall foul of the issues currently in the ex-ante market and ultimately what the System Services market is trying to solve. It would seem erroneous to create a market that is seeking to encourage new investment in System Services and then apply a regulatory intervention such as Firm Access that would place restrictions on the providers from participating in the auctions.

As identified in the answer to question 11, there is a need for the product procurement to have a locational element when selecting winners. If there is no locational element (like a Locational Capacity Constraint Area) in the auction there is a real risk that the System Service Auction will not deliver on the TSOs requirements and ultimately leave the market in the same position that it is in today i.e. constraining down dispatchable units and constraining on other units and ultimately increasing the cost to the consumer.

ESB GT is strongly opposed to the introduction of the concept of Firm Access to the System Service market. It would be a fairer and more transparent approach to procure based on locational requirements than to create even more layers of complexity to solve the locational barrier.

It would seem appropriate that the TSOs would use the Balancing Market as a fallback means to refine the volumes of system services procured in the System Services auction not to solve the failures of the auction, and would compensate such behaviour valued against the market value for the services. If the TSO is having to constrain units on and off due to the System Service auction not procuring capacity in correct locations this would point to a failure in the auction design.

ESB GT believes if the TSOs are procuring System Services outside of the auction, through the Balancing Market, then those providers of the System Service should be compensated accordingly. Once the System Service auction includes a locational element these providers should be paid the higher of their bid price or the auction clearing price.

**Question 17: Do stakeholders have views on layered procurement of System Services? What approach could be taken to support this?**

Ideally the future System Services market should be designed to accommodate new System Service not yet identified. Therefore, ESB GT can appreciate the flexibility that the proposed layered approach provides to the System Services Market being able to cater for all type of investments and a cross many timeframes. Any mechanism that is put in place must ensure that efficient investment signals are provided otherwise the renewable energy targets will not be obtained. It is unclear how the proposed layered procurement of System Services will work as there is insufficient information provided in the consultation paper.

When considering the layered procurement of System Services it is necessary to determine what the end goal is for the System Service Market and then layer on short term targeted interventions to address barriers that prevent us from reaching this position (if any). The Pathway to a Net Zero world should not start with what the market should be for the current generation fleet instead it should be designed for the long term which may require some costs today but ultimately lead to much greater societal benefits in the future.

For the layered procurement for System Services it is important that the investor has (1) a choice when investing and (2) should only be required to take on risk it can manage. Additionally, the current thinking that all revenue streams/products sold in the CRM, DS3, RESS, Cap & Floor/RAB and Energy Market are substitutes needs to be reconsidered. These products are separate with different values to customers and can be provided by different technologies that don't necessarily provide the other products. Therefore, it is vital that each market can provide an investment signal. For example, a sync comp at this moment in time would appear to be an important technology going forward but unlike the "current" BNE OCGT it only has one market for a revenue stream and it is important that the signal from the system services market is not polluted by other regulatory interventions from the other markets.

ESB GT is concerned with the continued approach of including DS3 revenues in the BNE revenue calculation. The inclusion of DS3 revenues in the BNE Net CONE methodology / USPC process removes any incentive for participants to invest in DS3 products. ESB GT believes the design of any market (DS3, energy markets and CRM) must be done in a holistic approach and not in a silo. ESB GT is of the view that the current procedures for the calculation of the BNE Net CONE and USPC strips away the incentive to provide additional system services when the DS3 commercial advantage is removed from the potential capacity payment this is further magnified for plant that are being processed to get a USPC. If the net sum position of a plant's "allowable" cost recovery, due to BMPCOP, NIV tagging in the Balancing Market and BNE Net Cone/USPC less DS3 revenue, is zero the incentive to invest in other services no longer exists. The cost based regulation approach applied to I-SEM, DS3 and CRM means any DS3 investment decisions results in a zero sum game as any impact on revenues from a DS3 investment is offset in the CRM IMR bid determination for technologies that may efficiently service all markets. ESB GT believes a more holistic value based approach must be applied I-SEM, CRM and DS3 in order to ensure customers get the full benefits from capital investment. For the reasons described above, ESB GT does not believe that there is a single BNE Net CONE that can exist for both the DS3 and CRM market.

ESB GT is still trying to determine what approach for medium term and long term contracts could achieve the balance of facilitating the short term issues of a lack of competition in auctioned products but still apply once the product is auction-able. Medium term contracts may be required for all existing participants until the products are auctioned and long term contracts for incentivising investment have been designed. It may be worth assessing such options in the detailed design. One such option could be;

- Tender for fixed contracts (medium and/or long) through an auction process (T+1, T+4 or something more relevant to the needs of the TSO)
- Winner of auction process receives a contract that pays a standard weekly rate based on availability and requires full participation of the services in the daily system service auction
- If the product is deemed to be available for auction, the holder of the medium/long term contract (step 1) must participate in the daily system service auction for the volume successfully tendered and if it clears it is paid the clearing price like all other participants
- If the product is deemed to be not available for auction, the holder of the medium/long term contract (step 1) will receive a predefined tariff (as set by the TSOs/RAs with industry consultation)



- For the non-auctioned products, the predefined tariff will operate similar to today's market where the participant is paid on the higher of the ex-ante position and dispatch position.
  - Whether these medium term and long term contracts are regulated tariffs still needs further consideration and should be considered carefully in the high level phases. There are concerns that regulated tariff based structures can dampening value identification and thus impact the investment signal. Therefore, if a regulated tariff is to be applied it would need to be value reflective (i.e. a peak max tariff) not a cost based tariff. Further consideration on this is need in the high level design.

### **Question 18: Are there any further considerations in terms of Market Design?**

We have only just gone through a recent market reform and to some extent are still in the transition years of the CRM. It would be foolhardy not to take the learnings from this experience. For ESB GT one of the key learnings from ISEM and CRM is the need for an efficient transition from an existing mechanism to a new mechanism. This is an area that the High Level Design Consultation Paper has unfortunately missed and needs to be considered prior to moving to the detailed design phase.

When considering the internal consistency of the System Service Market within itself and within the entire ISEM market (Energy, CRM and RESS), ESB GT has reviewed a number of items that may warrant consideration when deciding on the Market Design;

- How should the T&SC settlement of the Balancing Market treat a unit that has taken a System Service position but was unable to trade to an ex-ante position? Under the current rules the unit would be exposed to the Balancing Market price and as it has a FPN larger than its QEx it will receive the CIMB and no CPremium. This approach makes sense for a unit when considering the energy market in isolation however it is not clear if a unit that has taken a position in the system service auction should receive the same treatment. Further consideration may be required for this in the detailed market design phase.
- The possibility of bidding caps was alluded to in the consultation paper. ESB GT believes the only form of price cap should be those provided for in the CEP/EBGL i.e. technical limits for IT systems. From the consultation paper it is clear that products that are deemed to be ready to be auctioned are competitive. Therefore, it is unclear why there is a need for bidding caps on participants. Additionally, once these system services are procured through an auction it is unclear if there will still be a need for a BCOP/BMPCOP as market power concerns due to locational issues in the ISEM should be addressed via the System Service Auctions. Included in the detail design should be a review of the interacting markets and current restrictions and whether the restrictions are still needed.
- Should the Interaction with CRM and SS flag continue? The current mechanism in the CRM is that any unit providing replacement reserve should not be exposed to a CRM non performance charge. This was an appropriate measure for the unauctioned regulated tariffs that are currently in place as the System Service provider has no choice on whether it uses it's unit to provider energy (MWh) or System Services (MVar). However, under the Future System Service Arrangements where all products are auctioned it will be the participants decision to provide energy or system services and therefore the retention of the SS flag may no longer be warranted. There may be a need to treat system services procured via the System Service Auction and Balancing Market differently.



- The System Services Market design may want to consider the consequences of the CRU decision on the CEP Article 12&13. For article 13 it is not clear if this decision could influence the High Level Decision for the System Service Market and auction sequencing with the DAM.
- For CEP article 12, it is unclear what approach should apply to dispatching down a non priority dispatch wind unit which is providing a System Services product, as per the auction outcome, and a priority dispatch unit not providing a System Service. Will the NPD wind unit be dispatched down to a min level that allows to provide the system service and then the priority dispatch wind unit takes the next MWh of dispatch down? Will the TSOs system be able to distinguish between this instance/tie breaking event?
- Currently Priority Dispatch wind units are not required to submit PNs. Will Priority Dispatch assets be allowed to participate in the System Services market or does the priority dispatch status mean it is energy only and these assets are treated as non-firm? Are the TSOs systems capable of accommodating priority dispatch assets submitting PNs reflective of a System Service position but also seeking to be generated at the maximum remaining available capacity?
- If the intention of the RAs is to move the procurement of system services to a market based approach it is unclear how a budget cap can be applied. As per the CEP and EBGL the price of the auctioned products should be determined by supply and demand and should not be polluted by the imposition of a budgetary cap. If we are to deviate from market fundamentals, as per the CEP & EBGL, there needs to be a clearly defined and justified reason for doing so. In ESB GT's view this Systems Services Future Arrangements Project is about maximising the benefits to the future customer by evolving the current DS3 services so that the right signals are sent to ensure higher penetrations of non synchronous generation are achieved in the future, and not about achieving the minimal compliance with EU rules at the cheapest cost to the consumer today. If the primary focus is on cost there is a danger that the system services market could go down the route that we are now seeing the CRM.
- Further assessment is required to understand how the System Service market will interact with the grid code requirements and where the codes, in overall terms, can be refined.