

DS3 System Services Consultation – Volume Calculation Methodology and Portfolio Scenarios

This questionnaire has been prepared to facilitate responses to the consultation. Respondents are not restricted to this template and can provide supplementary material if desired.

Please send responses in electronic format to DS3@eirgrid.com or DS3@soni.ltd.uk

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Note: It is the TSOs' intention to publish all responses. If your response is confidential, please indicate this by marking the following box with an "x". Please note that, in any event, all responses will be shared with the Regulatory Authorities.

Response confidential

The closing date for responses is Wednesday, 25th November 2015. **Revised date – Friday 4th December**

<i>Question</i>	<i>Response</i>
Determination of Capability Volume Requirements	
<p>Do you agree with our proposed approach to determining the Capability Volume Requirements for the System Services?</p> <p>If not, please specify what alternative method you believe to be more appropriate.</p>	<p>At a high level the proposed approach seemed sensible and Coillte would have the following specific comments:</p> <p><u>System Services from Renewables</u></p> <p>Coillte believe that renewables can provide significant volumes of system services in the coming years. However, there are currently two obstacles which make it more difficult to do this.</p> <p>Firstly, while it has been agreed that long term contracts would be available through the auction, there is a risk that certain services will only be procured under tariffs with one year contracts available. This risk currently makes it impossible to provide a business case for the required investment.</p> <p>Secondly, there needs to be clarity regarding the treatment of system services revenues under the REFIT scheme i.e. confirmation that such revenue from such services is not included in the REFIT calculations.</p> <p>Given the significant volume of renewables which will connect to the system before 2020, timely clarity on these issues is needed to allow the required investment take place which will enable the provision of large volumes of system services in the coming years.</p> <p>This is particularly relevant for the provision of Dynamic Reactive Response and Fast Post Fault Active Power Recovery.</p>

General Approach for 11 services

In the Plexos modelling used to assess the scenarios the level of curtailment deemed acceptable by the TSO is 5%. Coillte would question if such curtailment levels satisfy the obligations of the TSO under Article 16 of Directive 2009/EC/28.

It is unclear from the consultation what level of Dispatch Balancing Costs constitute a need for additional services. Also, it is not clear if the Market SMP is taken into account in this analysis? Both of the above have a significant impact on the system services capabilities.

Steady State Reactive Power

As outlined in the consultation, the issues surrounding reactive power/voltage support are very local in nature. The proposed methodology is clear and logical, however, one concern would be in relation to the use of Statcoms in the modelling. A Statcom in a particular location on the network can provide a certain amount of reactive power to solve a problem. However, a much higher level of reactive power may be required from other sources to solve the same problem due to their different location(s).

Dynamic Reactive Power and Fast Post Fault Active Power Recovery

Coillte would agree that the provision of this service should be targeted from non conventional generation as all forms of conventional generation inherently provide these services. Based on this, if the volume requirement is to be set at this amount then both existing and future conventional generation must be excluded from bidding to provide these services.

Plant Portfolio Scenarios

Do you agree with the 2017/18 and 2019/20 plant portfolio scenarios and underlying assumptions presented as the starting point for carrying out the analysis of System Services Capability Volume Requirements?

If not, please specify what alternative scenarios you believe to be more appropriate, and why.

2017/18 Plant Portfolio Scenarios

Given the issues to date and the current position of the North South Project, the assumption that it will be built and operational before 2020 would seem very optimistic. A sensitivity check should be carried out to assess the impact of a later operational date.

The consultation does not provide the basis for the assumptions on the Fast Frequency Response capabilities. The validity of these assumptions should be assessed with current providers of POR.

2019/20 Plant Portfolio Scenarios

The Enhanced Capability Portfolio scenario includes two new OCGT's connecting to the system by 2019. While the Generation Capacity Statement 2015-2024 does state that there are five OCGT's with valid contracts in place, it is also stated that a number of these have almost lapsed. Also, none of the five OCGT's have a commissioning date. Finally, the base case in the Generation Capacity Statement 2015-2024 would appear to have one OCGT. Eirgrid should reassess the validity of this assumption and any potential impact on the system services requirements.

The assumption of 3,000MW of wind portfolio with Fast Post Fault Active Power Recovery and Dynamic Reactive Response seems credible. The basis for 600MW of Fast Frequency Response from wind is not explained but would appear to be 20% of the 3,000MW ? Again, effort should be made with industry to validate these assumptions.

In both the 2019/2020 scenarios it is assumed a large volume of services (1200 - 1400MVAR) will be delivered from Statcoms and Synchronous Compensators. Also in the New Service Providers Portfolio a further 1,000MW of flywheels are assumed. From a modelling

perspective this may be a useful assumption but in reality the connection of this number of devices in such a timeframe is highly questionable.

More generally, given the recent growth in solar, the total of 100MW for non-wind renewables may need to be reassessed.

Also, across all scenarios there is no differentiation between TSO and DSO connected service providers? Is it correct to assume no technical and/or regulatory differences between TSO and DSO connected service providers?