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.

Question	*Response*
Determination of Capability Volume Requirements	
Do you agree with our proposed approach to determining the Capability Volume Requirements for the System Services? If not, please specify what alternative method you believe to be more appropriate.	AES understands the proposed methodology for determining the capability volume requirements for system services and welcomes the opportunity to comment on the proposals. In determining the capability volume requirements for system services AES is concerned that there is not a sufficient correlation with the Capacity Remuneration Mechanism and the associated Generation Adequacy calculation to determine if the capacity secured through that process can also deliver the levels of services required and in the correct time frame. It could be a possibility that plant successful in the CRM (both existing and new) will not have the required flexibility nor have the capability to be enhanced to provide the required flexibility due inherent design limitations. In general AES supports the methodology of detailed analysis for the 1st and 3rd years with interpolation in-between and based on plexos modelled portfolio scenarios. It is reasonable to assume that in the limited timeframe available for the 2017/18 scenario there would be little investment in enhanced capability due in some degree to the uncertainty created by the procurement mechanism itself and the general uncertainty created by the I-SEM transition process. In determining the required volumes AES agrees with the distinction between - capability volume and real time volume as it is important to recognise that significant amounts of capability may not be available in the required timeframe particularly if SNSP levels are high in real time. AES also welcomes the approach of securing prudent volumes, in this case the maximum volume in each scenario to achieve the maximum chances of achieving the required flexibility in real time capability. AES understands the proposed methodology to determine required volumes i.e. to remove zero or least utilised provider and/or add further service capability if not enough of a particular service to determine appropriate level as required and agrees this seems a reasonable approach. AES would like to understand how locational considerations for system services, as mentioned, are to be considered in particular in the absence of 2nd N-S interconnector in relation to the Northern Ireland jurisdiction and in relation to each of the

	specific products such as Steady State Reactive Power, Inertia, Fast Frequency Response etc. How is this to be addressed in any auction process? In determining system services volume requirements no mention has been made in the paper of accounting for long or short term loss of plant due to outages (i.e. an N-1 Criteria) in setting the capability volume. AES has a concern that if not considered, insufficient capability volume will be procured leading to reduced flexibility in real time provision. For DRR and FPFAPR services it has been assumed that it is only the volume of new non synchronous generation capacity that is required to be procured. However if the new non synchronous generation displaces synchronous generation in both capability volume and in real time volume, AES has a concern that there will be insufficient capability procured as not all new technologies are capable of providing these services and plant unsuccessful in CRM auction could well exit.
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.	AES welcomes the basic premise to treat all technologies and service providers in a fair and impartial manner and recognises that any portfolio scenario should be capable of meeting the real time service requirements to facilitate the desired increased SNSP levels. The portfolio scenarios are based on assumptions made which could turn out to be different than that expected such as – • The starting point of the 2015-2024 generation capacity statement may prove to be unreliable as the impact of the CRM auction could result in a change to the assumed level of plant due to potential uncontrolled exit. • The results of the RoCoF compliance studies could lead to a different outcome than that expected – i.e. not all plant successful in the RO auction is RoCoF compliant. • The 2nd North South Interconnector assumed to be built in 2019 – limited evidence that this would be the case. • A measurement of the real time capability of providers, especially if off load in a situation with high SNSP levels would be required at any given time. AES agrees with the rationale behind the portfolio one scenario i.e. based on existing service provider capabilities at (2017/18) with little expected enhancement due to the limited time

	available and with the proposed differences between the current plant portfolio and the 2017/18 portfolio. With regard to the 2019/20 scenarios, AES agrees that the scenarios could be very different depending on the available portfolio of providers and that the proposed enhanced and new service provider options seem to be a reasonable approach, although the reality could be some combination of all the options.. Two Portfolio scenarios based on 1. Enhanced and new capabilities (2019/2020) – enhanced capability from existing providers and also from wind farms and Interconnectors. 2. New service providers contribute significantly with interconnectors enhanced but lower from Windfarms and DSM. The enhanced scenario assumes that 6 of the existing CCGTS will be RoCoF compliant and will provide increased flexibility with shorter start up times, improved reserve capability with a reduction in minimum load. AES has concerns that the nature of the existing plants may not accommodate this enhancement and the uncertainty created by the current market reform process may discourage new investment in the required time frame. The new service provider's portfolio scenario assumes limited investment in enhanced capability occurs and therefore investment in alternatives must be found. AES considers this to be the more likely scenario with an increase in energy storage, synchronous compensation and some additional flexibility from existing CCGTs. The final position is most likely to be a combination of all options available.