DS3: System Services Consultation –
Finance Arrangements

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".

Response confidential ☐

The closing date for responses is Wednesday, 13th February 2013.

Question	*Response*
Value of System Services to the Electricity System	
Do you agree that the proposed value based approach to informing the amount of funding available for System Services is necessary and appropriate to deliver the required services to achieve the renewable targets?	
Financial Modelling and Analysis Approach	
To what extent, if any, should the capital costs inform the decision regarding future system services?	
Do you agree with the proposed methodology for determining the aggregate available pot for System Services?	
Allocation of System Services Revenue	
Which of the four methods outlined to allocate the funds between the System Services products would you prefer or is there another approach which should be considered?	
Remuneration Approach	
Is the rationale for proposing dispatch-dependent payments clear?	
Is there further justification, not included in earlier consultation responses, for adopting a more capability-based approach?	
Proposed Contractual Arrangements and Payments	
Are the proposed general contractual and payment arrangements clear?	
Further comments	With regard to the current proposal for the Fast Frequency Response requirement, is energy provision restricted to the 2-10 second timeframe and recovery restricted to 10-20 seconds? In other words

	could a source provide the response for longer than 8 seconds and then request a larger energy recovery outside of the designated recovery measuring time? Would this leave the system vulnerable to a large energy recovery? The current wording of the FFR may incentivise a response of fixed magnitude to a frequency deviation from wind turbines providing an emulated inertial response, i.e. the size of the response will not be proportional to the system frequency deviation as only the sustained increase in power seems to be compensated for. This means that, for a significant system frequency event, instead of providing as large a response as possible to mitigate a large frequency drop, the FFR supplied may be capped at a certain value (the largest value which can be sustained for 8 seconds). In the absence of such a cap, sources of this FFR response might be able to give a response proportional to the frequency deviation and so a larger instantaneous increase in output (MW) might be available to the system during a severe event. It should also be noted that by sustaining a reduced response beyond 10 seconds a generator may require a significant energy recovery phase in the 15+ s time frame. In such a case the generator could actually be incentivised to provide a long, sustained power response before requiring a very large energy recovery, not entirely captured within the 10 – 20 s time frame mentioned. Has the potential impact of such a response been considered? Product volume is based on the minimum increase in output during the 2-10 second period, while the eligibility for payment depends on the "extra energy provided" during the 2-10 second period. Hence, it is not explicitly recognised that "all" of the extra energy delivered has value to the system. Is this considered a fair arrangement?

	The synchronous inertia constraint of 25000 MWs considered with the presented studies is based on the assumption that the maximum infeed remains constant throughout the year. However, during periods of low demand, or otherwise, the largest infeed may be reduced, decreasing the likelihood of large ROCOF events, and hence a variable inertial constraint could be more appropriate. 'Solving the ROCOF issue' may involve examining the ability of generators to cope with high rates of change of frequency and for islanding protection not to erroneously activate, however, low system inertia could still imply large changes in system frequency following a disturbance, which would remain of concern. In summary, while it is recognised that other sources of frequency response should be considered in the portfolio of future ancillary services, the system needs should come before the consideration of currently available technology. Before the FFR service is finalised, the needs of the system should be fully understood, and the implications of incentivising particular behaviour should be evaluated. Then, the response which is of most value to the system, independent of technology type, should be defined and all technology types can strive to meet this response.