

Response to the IMO Ancillary Service Standards and Requirements Study

Thank you for the opportunity to provide a submission on the IMO Ancillary Service Standards and Requirements Study - First Draft Report, dated 17 April 2009.

Energy Response is an open access aggregator of Demand Side Response (DSR) for participants in the Western Australian Wholesale Electricity Market (WEM), the Australian National Electricity Market (NEM) and the New Zealand Electricity Market (NZEM).

Energy Response is highly experienced in sourcing, contracting and aggregating DSR and has extensive experience in the actual dispatch and settlement of DSR in three markets of operation for a range of market applications. These applications include DSR for Transmission and Distribution Networks, Retailers, Generators, IMO's and ISO's.

In the WEM, Energy Response is a participant and is a proven provider of aggregated DSR into the Reserve Capacity market

- 12 MW with Synergy
- 23 MW with IMO from October 2010
- Has offered 50MW to IMO from October 2011

Energy Response has also provided peak load reduction DSR to Verve to replace the use of oil during extreme peaks in demand in the SWIS.

In Broome, Energy Response has completed a successful trial with Horizon Power for DSR avoiding use of diesel during peak demand cycles with the aim of deferral of additional LNG generators for several years in Broome and other isolated power systems in WA.

In New Zealand, Energy Response provided 10 MW of DSR to Transpower for a highly successful winter Demand Side Participation Pilot in 2007 and 20 MW for further Trial in 2008. Energy Response currently provides DSR to the NZEM Ancillary Services (under frequency) market.

In the NEM, Energy Response has successfully supplied 125MW firm DSR for Reserve over the summer of 2005/06, and provided 50MW of firm DSR to help protect a wide area of NSW from power failures in the 2008/09 summer.

Based on this range of relevant experience, Energy Response is pleased to provide the following comments about of the Draft Report.

Overall Comment about the Draft Report

As a general comment, the IMO/SKM should be congratulated on developing a very good first draft of a discussion paper that addresses areas where the treatment of Ancillary Services could be revised to better meet the market objectives of the WEM.

The study addresses many of the key issues and barriers that impede the effectiveness and efficiency of Ancillary Services within the WEM. However, the Study concentrates on Generator (Supply Side) issues and solutions while the use and value of Demand Side options have not been fully identified and considered.

While the predominant requirement for Ancillary Services is traditionally provide by generation there is a significant role the Demand Side can play, especially for System Interruptible Load during under frequency events. This has been proven in the New Zealand Interruptible Load Market where, as outlined above, Energy Response provides a number of MW of firm DSR on an ongoing basis. We have the technology and systems to provide DSR to respond to under frequency events in the WEM now.

A significant part of the WEM's efficiency can be attributed to the Market recognizing DSM/DSR's role in the Reserve Capacity Market. This provides superior security of supply and cost control than we see in NEM or NZEM. We believe that the same recognition and even handedness should also be applied to DSR in the WEM's Ancillary services market.

The Energy Industry Act 2004 Part 9, in particular Clause 122.2 (c), states the WEM Rules must not discriminate against sustainable energy options and technologies. DSR is a proven economical sustainable energy option and technology, recognized in the WEM Reserve Capacity Market. DSR must be afforded an equal opportunity under the other sections of the WEM.

The changes to the rules must not inhibit how the services may be sourced so long as they meet the technical requirements as this could inhibit solutions that no-one has yet thought of.

Specific Comments about the “Resulting recommendations and key benefits” outlined in the Draft Report.

- 1) “No change to the Market Rules regarding the definition of Ancillary Services is recommended at this time. *Existing definitions effectively cover all Ancillary Services for the WEM as it exists today.*”

Comment: The existing definition covers the provision of DSR for Spinning Reserve. However, it should also make allowance for DSR to be provided for Load Following.

- 2) “No change to the Market Rules in the determination of Load Following is recommended at this time. *The existing determination criteria can adequately respond to changes in the market.*”

Comment: To enable a DSR provider to participate in the Load Following market the definition would need to change and a rule modified to accommodate smaller parcels of DSR to be used.

- 3) “The Market Rules on the determination of Spinning Reserve be revisited to reflect “Performance based” criteria as in the Technical Rules. *Although the current determination is the economically optimal and lowest technically acceptable volume of spinning reserve, this change will allow the determination of Spinning Reserve to be optimized as generation parameters on the WEM change.*”

Comment: Agreed

- 4) “No change to the Market Rules in the determination of Load Rejection Reserve Services is recommended at this time. *The existing determination criteria can adequately respond to changes in the market.*”

Comment: Agreed

- 5) “The Renewable Energy Generation (REG) working group review the use of common machines to supply Load Following and Spinning Reserve services in the context of increased wind generation within the WEM. *With the increase in wind generation penetration on the SWIS, the risk of a concurrent Load Following and Spinning Reserve event will increase.*

Comment: This review is required along with the use of DSR to address the issue of the instability caused by the increase of wind generation. DSR has the ability to address many of these issues and should be included in the rule changes.

- 6) “Develop the Ancillary Service procurement mechanism to ensure adequate quantities of Generation with the required capabilities are available. *Studies demonstrate that the introduction of a mid-merit generators (higher efficiency simple cycle gas turbines e.g. LMS100) would decrease the cost of the Optimized Dispatch Market by over \$30 million per annum and increase the security of supply. At the moment there are limited market mechanisms to support Non-Verve Energy Generators in the development of these technologies”.*

Comment: This recommendation is too narrow by only including generation. We believe that an appropriate procurement mechanism is also required to ensure that DSR will be utilized for Ancillary Services where it demonstrates it is the best option.

- 7) “Changes should be made in order to reduce the reinforcement of the dominance of Verve Energy in the provision of Ancillary Services. *Studies demonstrate that procuring Spinning Reserve and Load Following from all existing market participants will decrease the cost of the Optimised Dispatch Market by \$16 million per annum whilst improving system security. This would be achieved with no additional capital investment.”*

Comment: Agreed. Also, the procurement of DSR for appropriate areas of Ancillary services will create greater efficiencies and cost savings.

- 8) “A real time market for the procurement of Ancillary Services is not implemented at this time. *Evidence concludes that a full real-time market for Ancillary Services in the SWIS would result in a suboptimal outcome.*

Comment: To ensure the efficient and cost effective procurement of Ancillary Services, an effective market or contracting mechanism needs to be put in place for both the Supply and Demand side to create the appropriate level of competition.

- 9) “No recommendation has been made on the basis for setting the price for Ancillary Services (however alternatives have been provided); information received in the first round of public consultation will inform this recommendation. *Further stakeholder feedback is sought.*

Comment: An adequate price mechanism is essential to incentivize/compensate providers of Ancillary Services. The appropriate level and reliability of Ancillary Services is essential to maintain system security and reliability of the SWIS.

- 10) “A Standard Form Agreement with standard specifications for the provision of each of the Ancillary Services should be developed as soon as possible. *SKMs current view is that this likely to be the most cost effective solution.”*

Comment: Agreed. Such an agreement should be even handed and include both the Supply and Demand Sides.

- 11) “Implementation of a penalty regime for failure to provide a declared Ancillary Service is recommended. *Based on results of international comparisons.*”

Comment: Penalties need to in place to ensure quality and reliability. However the penalty needs to be commensurate with the rewards and not so heavy as to discourage participation. An example of fair and reasonable penalties for all parties is that used in the NZEM Interruptible Reserve Market.

In 14.2.4 of the Study it states: “The Spinning Reserve and Load Following components of the Spinning Reserve are provided by generators on the system whilst the System Interruptible Load (SIL) is provided by Synergy and Knowna.”

Comment: Energy Response has the proven technology, systems and providers to provide 10 MW DSR for SIL to the WEM. We are not aware of a mechanism to enable us to provide our DSR as SIL. We would like to explore what we need to do and what rules need to be amended to enable us to join Synergy and Knowna in providing SIL to the WEM.

Thank you again for the opportunity to provide this submission. If you require further information, please do not hesitate to contact me.

Rob Rohrlach
Manager Western Australia
15 May 2009