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18 May 2018

John Pierce
Australian Energy Market Commission

Submitted online: www.aemc.gov.au

Dear Mr Pierce,

CSR welcomes the opportunity to further comment on the ***Reliability Frameworks Review, Directions Paper 17 April 2018.***

CSR is a leading building products company in Australia and New Zealand which manufactures and supplies products including Gyprock™ plasterboard, Bradford™ insulation, Cemintel™ fibre cement, Monier™ roof tiles, PGH™ Bricks, AFS™ walling systems and Viridian™ glass.

CSR employs approximately 3,500 people across all states and territories. It manufactures or processes product in every state and territory. On the east coast the company purchases over 6 GJ of gas per annum and 300 GWh per annum of electricity. In addition, CSR has an effective interest in the Tomago Aluminium smelter of 25.2%.

CSR is strongly impacted by energy and carbon policies, market structures and supply. Over the last two years CSR Building Products national energy expenditure has increased by 20% to over $100m. CSR has taken a number of steps to actively reduce its costs including an increased exposure to both the wholesale electricity and gas markets and investments in a number of energy improvement projects such as on-site solar PV, energy storage and improved heat-recovery.

Demand Response and Day-ahead Market

CSR supports the development of wholesale "Demand Response" to work alongside power generation and to allow the market to determine the most effective cost. Across CSR's major manufacturing sites in NSW, VIC, QLD and WA there is potential for demand reduction of up to 75% at a price ranging from $1,000 to $30,000/MWh.

The time required to achieve Demand Response from CSR's manufacturing facilities varies from site to site due to the differences in manufacturing processes. For example, Demand Response can be achieved in a few minutes in a process that requires conveyor belts to be emptied before a ball-mill is stopped. Other processes such as an electric glass furnace requires an extended ramp-down in production that can take several hours to achieve. There also is also the opportunity for plant maintenance to be scheduled to coincide with periods of high electricity prices.

These Demand Response options while slower to "*dispatch*" can be effective over many hours and are complimentary to battery technology that are fast acting over shorter durations.

In the past 12 months, CSR manufacturing sites have actively participated in Demand Response during periods of high spot prices. CSR has found the variability of the pre-dispatch forecast during high prices (>$1,000/MWh) to be extremely unreliable resulting in a number of instances where production was curtailed or maintenance re-scheduled to later find the resulting electricity price lower than $300/MWh.

The AEMC's review to improve demand forecasting will not address this issue hence CSR's submission supports the development of wholesale Demand Response and Day-Ahead markets.

For Demand Response, CSR supports the ability to transfer the value of the wholesale Demand Response from the existing Financially Responsible Market Participant ("FRMP") to the aggregator. Key benefits include:

- Ability for third party to submit Demand Response bids to the wholesale market; and
- Enables Demand Response to be scheduled. This provides certainty and the aggregator becomes exposed to the wholesale price for the difference between the baseline level of consumption and actual level of consumption.

The design of the baseline mechanism and calculation methodology will be important and CSR would seek to better understand how this will be determined should this option be further developed.

CSR is also attracted to the design of the Day-ahead market as a mechanism that would better suit Demand Response participation from operations with an extended shut down duration. CSR supports the view that this will facilitate increased levels of load-side participation as bidding would occur at the Day-Ahead stage, improve price certainty and increase the efficiency on the demand-side.

Should you require clarification or further information, we would be happy to provide further consultation.

Yours Sincerely,

Andrew Cheah
Energy Manager
CSR Limited