Agenda Item 5c: Net STEM Shortfall Calculation

1. PURPOSE & BACKGROUND

The purpose of this paper is to provide a summary of the comments received from the Market Advisory Committee (MAC) on the Net STEM Shortfall Calculation Concept Paper (CP_2010_01). The paper identified two issues with clause 4.26.2 which will, in certain circumstances, lead to different outcomes for Market Participants with:

1. Multi-Facility portfolios (including Curtailable Loads and Interruptible Loads); and
2. Facilities with outputs greater than their Reserve Capacity Obligations (such as Intermittent Loads)

One participant with a multi-Facility portfolio (including a Curtailable Load) has identified that it is negatively impacted by the current calculation of the Net STEM shortfall under clause 4.26.2. In particular if a facility in this participant's portfolio is undergoing a partial Forced Outage a shortfall will be calculated despite the energy associated with its Curtailable Load having been made available to the market. For further details of the issues identified with clause 4.26.2 please refer to: http://www.imowa.com.au/concept-papers

A number of potential solutions were presented in the paper circulated to the MAC following the February meeting, including an interim solution to issue one (noted above). The interim solution was the removal of Curtailable Loads from the Net STEM Shortfall calculation and separate treatment in the Capacity Shortfall calculation under clause 4.26.2D.

The Independent Market Operator (IMO) invited MAC members to provide comments on the two issues and potential solutions associated with the determination of a Net STEM Shortfall. In particular:

- Whether an interim solution would be appropriate, though noting that the issues around facilities with outputs greater than their Reserve Capacity Obligations would need consideration in the future; or
- Whether a comprehensive long term solution should be sought.

2. COMMENTS FROM MAC MEMBERS

The IMO received comments from Alinta, Landfill Gas & Power (LGP) and Perth Energy. A summary of the comments received follows:

Alinta:

- Supports the interim solution identified by the IMO, noting that it is clearly necessary to rectify a manifest error in the Market Rules which appears self-evident in the case of Curtailable Loads;
- Is not persuaded that the outcome of the current Market Rules, which may provide a benefit to Market Participants with a mixture of Scheduled Generators and Intermittent Loads, is a manifest error. In particular noting that if the market is not adversely impacted by the operation of the current Market Rules then it can not be a manifest error;
- Notes that it appears that clause 4.26.2 potentially provides an incentive to invest in Intermittent Generation as part of a diversified facility portfolio and that it is not clear that this incentive is not the intent of the current Market Rules;
- Considers that whatever the intent behind clause 4.26.2 when it was drafted, it is appropriate that the outcomes associated with the clause be reviewed and assessed against the Market Objectives;
- Considers that the longer term solutions identified in the IMO's Concept Paper should also be assessed against the Market Objectives, noting that to date it has been unable to conclude whether one option is more consistent with the Market Objectives than others; and
- Notes that its facility portfolio includes a mix of scheduled generation, Intermittent Generators and Curtailable Loads and that it has undertaken a preliminary review to determine the extent of the impacts of this clause (in terms of either a financial benefit or cost) and has not been able to identify any instances where is was materially affected by clause 4.26.2.

LGP:

- Supports both the interim solution and a broad approach for a permanent fix in the future;
- In particular, supports the principles that:
    - A portfolio should not suffer shortfall quantities (either directly or indirectly) when its Facilities and Loads performed properly according to their Reserve Capacity obligations;
    - A portfolio that contains Scheduled Loads and Intermittent Generators should not be permitted to use Metered Scheduled Quantities (MSQ) from its Intermittent Generators to mitigate shortfalls from one or more Scheduled Generators; or
    - Where a Market Participant is incurring material cost due to a manifest error, the Market Rules should be varied expeditiously to stop the losses, including by means of a temporary simple solution even if it does not address the wider implications and will required further revisiting.

Perth Energy:

- Supports a solution which would address all the issues, however should this prove difficult to implement considers that the interim solution proposed by the IMO would be appropriate;
- Considers that the unintended effects flowing from the current formulation of the Net STEM Shortfall calculation need to be addressed for the following reasons:

- The Market Rules as currently written seem to inadvertently discriminate between single and multiple facility portfolios;

- The current Market Rules clearly provide a significant disincentive to registering a Curtailable Load or Interruptible Load as all Capacity Credits associated with these facilities will over a year be repaid in the form of Capacity Credit refunds as a result of the shortcoming in the current formulation of the Net STEM shortfall calculation; and

- The beneficial impact of Intermittent Generator's output on a Market Participants total Net STEM Shortfall is not warranted. In particular, Intermittent Generators are allocated Capacity Credits and have at the same time a zero value for their Reserve Capacity Obligation Quantity (RCOQ) meaning in effect that no Capacity Credit refunds apply to Intermittent Generators. Intermittent Generators also do not incur penalties for not following a predetermined Resource Plan. Continuing to allow Intermittent Generators to offset net STEM shortfalls created by other facilities within a portfolio will continue to provide portfolios with Intermittent Generators an undue competitive advantage;

- Considers there may be merit in further investigating the following solutions:
  - Removal of all of clause 4.26.2; and
  - Amending clause 4.26.2 as suggested by the IMO to set the RCOQ in the calculation to be the lesser of DSQ and RCOQ removing the unwarranted capacity from MSQ and DSQ.
- Notes that if the solution of removing clause 4.26.2 altogether were to be adopted it may be necessary to investigate whether there is a need for any further changes to other parts of the Market Rules to ensure that all Forced Outages are always reported to System Management and therefore liable for Capacity Cost Refunds; and
- Considers that addressing the issue identified by removing the unintended consequences in the current calculation of the Net STEM shortfall would improve facilitation of the Market Objectives and in particular Market Objectives (b) and (c).

3. OUTCOMES

Given the support provided in submissions for progressing the interim solution (removal of Curtailable Loads from the calculation of the Net STEM shortfall) the IMO initiated the Fast Track Rule Change Proposal: Calculation of Net STEM Shortfall (RC_2010_03).

This is attached to this paper and further details of the Rule Change Proposal are available on the following webpage: http://www.imowa.com.au/RC_2010_03