ELECTRICITY INDUSTRY ACT 2004 ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY - MARKET) REGULATIONS 2004 Wholesale Electricity Market Rules

IMO AMENDING RULES RC_2013_11 MADE ON 18 September 2013 These Amending Rules commence at 08.00am on 23 September 2013

The following clauses are amended (deleted wording, new wording):

Appendix 5: Individual Reserve Capacity Requirements

This Appendix presents the method for annually setting and monthly adjusting Individual Reserve Capacity Requirements.

For the purpose of this Appendix:

- Steps 1 to 10 are repeated every month.
- All references, apart from those in Step 5A, to meters are interval meters.
- The Notional Wholesale Meter is to be treated as a registered interval meter measuring Temperature Dependent Load. This meter is denoted by Temperature Dependent Load meter v=v*.
- The New Notional Wholesale Meter, determined in accordance with Step 5A, is to be treated as a registered interval meter measuring Temperature Dependent Load.
- The meter registration data to be used in the calculations is to be the most current complete set of meter registration data as at the time of commencing the calculations.
- The values of RR (the Reserve Capacity Requirement) and FL (forecast peak demand associated with that Reserve Capacity Requirement as specified in clause 4.6.2) may be modified from their standard values in accordance with clause 4.28.11A.
- In the case of the first Reserve Capacity Cycle, the IMO may use meter data relating to periods prior to Energy Market Commencement as if the energy market had commenced prior to the time periods covered by that meter data.
- In Steps 1 and 5 the demand in a Trading Interval is measured as the Total Sent Out Generation in that Trading Interval.
- In Step 1 the maximum demand for a Trading Day is the highest demand measured for any Trading Interval in that Trading Day.

STEP 1: Define the 12 peak <u>SWIS</u> Trading Intervals during the Hot Season preceding the initial calculation of Individual Reserve Capacity Requirements for a Reserve Capacity Cycle (the "preceding Hot Season") as corresponding to the 3 highest demand Trading Intervals on each of the 4 Trading Days with the highest daily maximum demand, where demand refers to total demand, net of embedded generation, in the SWIS.

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STEP 5: When determining the Individual Reserve Capacity Requirements for Trading Month n identify meters that were not registered with the IMO during one or more of the 12 peak <u>SWIS</u> Trading Intervals in the preceding Hot Season but which were registered by the end of Trading Month n-3.

Identify the 4 Ppeak SWIS Trading Intervals of Trading Month n-3, being the 4 highest demand Trading Intervals in that Trading Month, where demand refers to total demand, net of embedded generation, in the SWIS.

For a new meter u that measures Non-Temperature Dependent Load set NMNTCR(u) to be 1.1 times the MW figure formed by doubling the median value of the metered consumption for that meter during the 4 Ppeak SWIS Trading Intervals of Trading Month n-3.

For a new meter v that measures Temperature Dependent Load set NMTDCR(v) equal to be 1.3 times the MW figure formed by doubling the median value of the metered consumption for that meter during the 4 $P_{\underline{p}}$ eak SWIS Trading Intervals of Trading Month n-3.

For a new meter w that measures Intermittent Load set IILRCR(w) in accordance with Appendix 4A to the value applicable to Trading Month n.

STEP 5A: When determining the Individual Reserve Capacity Requirements for Trading Month n.

Find the MW figure formed by doubling the median value of the metered consumption for the Notional Wholesale Meter v*, during the 4 Ppeak SWIS Trading Intervals of Trading Month n-3 ("Median Notional Wholesale Meter").

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STEP 7: Identify the set NM of all those new meters v that measured consumption that was measured by meter $v=v^*$ during the preceding Hot Season and set TDLn(v) for meter $v=v^*$ to equal:

 $TDLn(v^*) = TDL(v^*) - Sum(v \in NW, NMTDCR(v) \times d(v,q))$

Where

q denotes a Market Customer to which the new meter is associated.

d(v,q) is the number of days the new meter is registered to Market Participant q divide by number of days in the t_T rading mMonth n-3.

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Appendix 5A: Non-Temperature Dependent Load Requirements

This Appendix presents the method and requirements for accepting, in accordance with clause 4.28.9, a load measured by an interval meter in the list provided in accordance with clause 4.28.8(a) as a Non-Temperature Dependent Load.

For the purpose of this Appendix:

- the meter data to be used in any calculations is to be the most current set of meter data as at the time of commencing the calculations.
- <u>the 4 peak SWIS Trading Intervals in a Trading Month are the 4 highest demand</u> <u>Trading Intervals in that Trading Month, where the demand in a Trading Interval is</u> <u>measured as the Total Sent Out Generation in that Trading Interval.</u>

The IMO must perform the following steps in deciding whether to accept, in accordance with clause 4.28.9, a load measured by an interval meter in the list provided in accordance with clause 4.28.8(a) as a Non-Temperature Dependent Load:

Step 1:

- If, in accordance with clause 4.28.8(a), the IMO is provided by a Market Customer in Trading Month (n-2) with a list that includes an interval meter associated with that Market Customer that it wants the IMO to treat as a Non-Temperature Dependent Load from Trading Month (n); and
- If the list including the interval meter is provided by the date and time specified in clause 4.1.23; and
- If the load was treated as a Non-Temperature Dependent Load in Trading Month (n-8),

then the IMO must accept the load as a Non-Temperature Dependent Load if:

- (a) the median value of the metered consumption for that load was in excess of 1.0MWh, calculated over the set of Trading Intervals defined as the <u>four4</u> peak SWIS<u>Trading Intervals</u> in each of the Trading Months starting from the start of Trading Month n-11 to the end of Trading Month n-3; and
- (b) the load did not deviate downwards from the median consumption in paragraph (a) by more than 10% for more than 10% of the time during the period from the start of Trading Month (n-11) to the end of Trading Month (n-3) except during Trading Intervals where:
 - i. the consumption was 0 MWh; or
 - ii. consumption was reduced at the request of System Management; or

evidence is provided by the Market Customer that the source of the consumption was operating at below capacity due to maintenance or a Saturday, Sunday or a public holiday throughout Western Australia.

Step 2:

- If, in accordance with clause 4.28.8(a), the IMO is provided by a Market Customer in Trading Month (n-2) with a list that includes an interval meter associated with that Market Customer that it wants the IMO to treat as a Non-Temperature Dependent Load from Trading Month (n); and
- If the load is not treated as a Non-Temperature Dependent Load in Trading Month (n-1); and
- If the load was not treated as a Non-Temperature Dependent Load for any of the Trading Months in the Capacity Year in which Trading Month (n) falls,

then the IMO must accept the load as a Non-Temperature Dependent Load for Trading Month (n) if:

- the median value of the metered consumption values for that load during the 4 Ppeak SWIS Trading Intervals in Trading Month (n-3) was in excess of 1.0MWh; and
- (b) the load did not deviate downwards from the median consumption in paragraph (a) by more than 10% for more than 10% of the time during Trading Month (n-3) except during Trading Intervals where:
 - i. the consumption was 0 MWh; or
 - ii. consumption was reduced at the request of System Management; or
 - evidence is provided by the Market Customer that the source of the consumption was operating at below capacity due to maintenance or a Saturday, Sunday or a public holiday throughout Western Australia.

Step 3:

- If a load was not accepted under Step 1 as a Non-Temperature Dependent Load for Trading Month (n); and
- If the load was accepted under Step 2, or previously under this Step 3, as a Non-Temperature Dependent Load for Trading Month (n-1),

then the IMO must accept the load as a Non-Temperature Dependent Load for Trading Month (n) if:

 (a) the median value of the metered consumption for that load was in excess of 1.0MWh, calculated over the set of Trading Intervals defined as the <u>four4</u> peak SWIS<u>Trading Intervals</u> in each of the Trading Months commencing at the start of the Trading Month for which metered consumption values were used by the IMO to accept the load as a Non-Temperature Dependent Load under Step 2 to the end of Trading Month (n-3); and

- (b) the load did not deviate downwards from the median consumption in paragraph (a) by more than 10% for more than 10% of the time during the period from the start of the Trading Month for which metered consumption values were used by the IMO to accept the load as a Non-Temperature Dependent Load under Step 2 to the end of Trading Month (n-3) except during Trading Intervals where:
 - i. the consumption was 0 MWh; or
 - ii. consumption was reduced at the request of System Management; or
 - iii. evidence is provided by the Market Customer that the source of the consumption was operating at below capacity due to maintenance or a Saturday, Sunday or a public holiday throughout Western Australia.

Step 4:

Otherwise, the IMO must treat a load as a Temperature Dependent Load.

11 Glossary

Total Sent Out Generation: Means, for a Trading Interval, the sum over all Scheduled Generators and Non-Scheduled Generators of each Facility's Sent Out Metered Schedule for the Trading Interval or zero (whichever is higher for that Facility).