

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

**IMO AMENDING RULES RC\_2011\_07 MADE ON 15 August 2011**  
**These Amending Rules commence at 08.00am on 1 December 2011**

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

- 4.26.2. The IMO must determine the net STEM shortfall ("**Net STEM Shortfall**") in Reserve Capacity supplied by each Market Participant  $p$  holding Capacity Credits associated with a generation system in each Trading Interval  $t$  of Trading Day  $d$  and Trading Month  $m$  as:

$$SF(p,m,d,t) = \text{Max}(\text{RTFO}(p,d,t), \text{RCOQ}(p,d,t) - A(p,d,t)) + \text{Sum}(f \in F, \text{Max}(0, B(p_f,d,t) - C(p_f,d,t))) - \text{RTFO}(p,d,t)$$

Where

$$A(p,d,t) = \text{Min}(\text{RCOQ}(p,d,t), \text{CAPA}(p,d,t));$$

$$B(p_f,d,t) = \text{Min}(\text{RCOQ}(p_f,d,t) - \text{RTFO}(p_f,d,t), \text{DSQ}(p_f,d,t));$$

$$C(p_f,d,t) = \text{Min}(\text{DSQ}(p_f,d,t), \text{MSQ}(p_f,d,t));$$

$\text{RCOQ}(p,d,t)$  for Market Participant  $p$  and Trading Interval  $t$  of Trading Day  $d$  is equal to:

- (a) the total Reserve Capacity Obligation Quantity of Market Participant  $p$ 's unregistered facilities that have Reserve Capacity Obligations, excluding Loads that can be interrupted on request, plus
- (b) the sum of the product of:
  - i. the factor described in clause 4.26.2B as it applies to Market Participant  $p$ 's Registered Facilities; and
  - ii. the Reserve Capacity Obligation Quantity for each Facility for all Market Participant  $p$ 's Registered Facilities, excluding Demand Side Programmes;

$\text{RCOQ}(f,d,t)$  for Facility  $f$  and Trading Interval  $t$  of Trading Day  $d$  is equal to the product of the factor described in clause 4.26.2B as it applies to Facility  $f$  and the Reserve Capacity Obligation Quantity for Facility  $f$ .

$\text{CAPA}(p,d,t)$  is for Market Participant  $p$  and Trading Interval  $t$  of Trading Day  $d$ :

- (c) equal to  $RCOQ(p,d,t)$  for a Trading Interval where the STEM auction has been suspended by the IMO in accordance with clause 6.10;
- (d) subject to paragraph (c), for the case where Market Participant p is not the Electricity Generation Corporation, the sum of:
  - i. the sum of the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads; plus
  - ii. the MW quantity calculated by doubling the net MWh quantity of energy sent out by Facilities registered by that Market Participant during that Trading Interval calculated as the Net Contract Position less the shortfall as indicated by the applicable Resource Plan; plus
  - iiA if a STEM submission does not exist for that Trading Interval, the MW quantity calculated by doubling the total MWh quantity of energy to be consumed by that Market Participant including demand associated with any Interruptible Load, but excluding demand associated with any Dispatchable Load during that Trading Interval as indicated by the applicable Resource Plan; plus
  - iii. the MW quantity calculated by doubling the total MWh quantity covered by the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by the IMO for that Market Participant under clause 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - iv. double the total MWh quantity to be provided as Ancillary Services as specified by the IMO in accordance with clause 6.3A.2(e)(i) for that Market Participant corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - v. the greater of zero and  $(BSFO(p,d,t) - RTFO(p,d,t))$ ; and
- (e) subject to paragraph (c), for the case where Market Participant p is the Electricity Generation Corporation, the sum of:
  - i. the sum of the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads; plus
  - ii. the MW quantity calculated by doubling the total MWh quantity of the Net Contract Position quantity of that Market Participant for Trading Interval t, corrected for Loss

- Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
- iii the MW quantity calculated by doubling the total MWh quantity of the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by the IMO for that Market Participant under clause 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - iv. double the total MWh quantity to be provided as Ancillary Services as specified by the IMO in accordance with clause 6.3A.2(e)(i) for the Electricity Generation Corporation corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus
  - v. the greater of zero and  $(BSFO(p,d,t) - RTFO(p,d,t))$ .

$BSFO(p,d,t)$  is the total MW quantity of Forced Outage associated with Market Participant p before the STEM Auction for Trading Interval t of Trading Day d, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as provided to the IMO by System Management in accordance with clause 7.3;

$RTFO(p,d,t)$  is the total MW quantity of Forced Outage associated with Market Participant p in real-time for Trading Interval t of Trading Day d, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as provided to the IMO by System Management in accordance with clause 7.13.1A (b);

$RTFO(f,d,t)$  is the total MW quantity of Forced Outage associated with Facility f in real-time for Trading Interval t of Trading Day d, where this is the lesser of the Reserve Capacity Obligation Quantity of the Facility f for Trading Interval t and the MW Forced Outage of the Facility f for Trading Interval t as provided to the IMO by System Management in accordance with clause 7.13.1A (b);

~~$DSQ(p_f,d,t)$  is a MW quantity calculated by doubling the MWh value of sum over all of the Facilities registered by Market Participant p of each Facility f's Dispatch Schedule for Trading Interval t of Trading Day d;~~

~~$MSQ(p_f,d,t)$  is a MW quantity calculated by doubling the greater of zero and the MWh value of sum over all of the Facilities registered by Market Participant p of the greater of zero and Facility f's Metered Schedule for~~

Trading Interval  $t$  of Trading Day  $d$ , corrected for Loss Factor adjustments applicable to that Facility so as to be a sent out quantity;

F denotes the set of Scheduled Generators registered by Market Participant  $p$ , where " $f$ " is used to refer to a member of that set.

4.26.2B. The IMO is to set the factor described in the definition of  $RCOQ(p,d,t)$  and  $RCOQ(f,d,t)$  in clause 4.26.2 to equal one in all situations except for Scheduled Generators, Non-Scheduled Generators and Dispatchable Loads with Loss Factors less than one in which event the factor must equal the facilities Loss Factor.

4.26.5. To support the calculation of the values of  $RCOQ(p,d,t)$  and  $RCOQ(f,d,t)$  required by clause 4.26.2:

...