

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

IMO AMENDING RULES RC_2010_03 MADE ON 30 March 2010
These Amending Rules commence at 08.00am on 1 April 2010

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:

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

Where

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

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

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

RCOQ(p,d,t) is 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 ~~over all of the Registered Facilities registered to Market Participant p~~ of the product of:
 - i. the factor described in clause 4.26.2B as it applies to Market Participant p's the Registered Facilityies; and
 - ii. the Facility's Reserve Capacity Obligation Quantity for each Facility

for all Market Participant p's Registered Facilities, excluding Curtailable Loads; in Trading Interval t of Trading Day d;

CAPA(p,d,t) is for Market Participant p and Trading Interval t of Trading Day d:

- (ac) 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;
- (bd) subject to paragraph (ac), 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 and ~~Curtailed 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 Curtailed Load or ~~Interruptible~~ 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
- (ee) subject to paragraph (ac), 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 and ~~Curtailed 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);

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

$MSQ(p,d,t)$ is a MW quantity calculated by doubling the MWh value of the sum over all of the Facilities registered by Market Participant p of the greater of zero and each Facility'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.

- 4.26.2E. For each Market Participant holding Capacity Credits, the IMO must determine the amount of the refund ("Capacity Cost Refund") to be applied for Trading Month m in respect of a Net STEM Shortfall as determined under clause 4.26.2 and a Capacity Shortfall as determined under clauses 4.26.2 or 4.26.2D during that Trading Month.

4.26.2F For each Market Participant holding Capacity Credits, the IMO must determine the amount of the refund (“Capacity Cost Refund”) to be applied for Trading Month m.

~~4.26.3 For each Market Participant holding Capacity Credits, the IMO must determine the amount of the refund (“Capacity Cost Refund”) associated with a generation system to be applied for Trading Month m. The Capacity Cost Refund associated with a generation system is the lesser of:~~

- (a) the Maximum Participant Refund determined in accordance with the Refund Table, less all Capacity Cost Refunds applicable to the Market Participant in previous Trading Months falling in the same Capacity Year as Trading Month m; and
- (b) the Participant Forced Outage Refund plus the sum over all Trading Intervals t in Trading Month m of the Net STEM Refund,

where the Net STEM Refund is the product of:

- i. the Off-Peak Trading Interval Rate or Peak Trading Interval Rate determined in accordance with the Refund Table applicable to Trading Interval t; and
- ii. the Net STEM Shortfall in Trading Interval t.

4.26.3A. The Capacity Cost Refund associated with a Curtailable Load is equal to the lesser of:

- (a) twelve times the Monthly Reserve Capacity Price multiplied by the number of Capacity Credits associated with the Facility, less all Capacity Cost Refunds applicable to the Market Participant in previous Trading Months falling in the same Capacity Year as Trading Month m; and
- (b) the sum over all Trading Intervals t in Trading Month m of:

$$12 * \text{Monthly Reserve Capacity Price} * S / (2 * H)$$

Where:

S is the Capacity Shortfall in MW determined in accordance with clause 4.26.2D in any Trading Interval; and

H is the maximum number of hours that the Facility was certified to be available in accordance with clause 4.10.1(f)(ii).