

## Question S-9

### Question

For a load-following Metered Subsystem Aggregation (MSSA), the current business rules specify that an individual MSS (associated with an MSSA) cannot produce any net positive energy. Under MRTU, however, this rule will no longer apply. As a result, the MSS may be accounted for with net positive energy, as measured at its point of interconnection. Further, this positive energy may be in the form of negative net load, i.e. where the MSS' internal generation output exceeds its load.

- a.) Please describe how energy associated with negative load would be settled and the list of all applicable charges that would apply.
- b.) Similarly, please identify the applicable ISO charges that would apply for the condition where an MSS' internal generation perfectly matches its load.

### Answer

The following Charge Codes (CC) would apply to the indicated settlement scenarios

#### CC 6470 - RT Instructed Imbalance Energy Settlements

**Gross:** This is the same as any other non-MSS resource except that an MSS Load Following resource will also have MSS Load Following energy. Except for Residual Energy, Standard Ramping Energy, Instructed Imbalance Energy should be settled at the Resource Specific LMP.

Note that MSS Load Following energy is not settled at \$0, but at the Resource Specific LMP. Although this energy will be classified as load following energy, the energy would not be subject to GMC. Rather, consistent with the intent of Tariff GMC is assessed on net MSS basis.

#### 4.9.9.3 GMC Charges.

If the CAISO is charging Grid Management Charges for Uninstructed Deviations, and the Scheduling Coordinator for a Load-following MSS has Uninstructed Deviations associated with the MSS's resources, then the CAISO will net the Generation and imports into the MSS to match the Demand and exports out of the MSS, and will not assess GMC associated with Uninstructed Deviations for such portion of Energy that is used to match MSS Demand and net exports.

**Net:** For Net MSS, although resource specific instructions may be issued, the net energy including real-time instructed energy will be settled depending if the net MSS is a net supplier of energy or a net demand. If the MSS is a net incremental supplier of Energy in Real-Time then the net incremental supply of energy is settled at the weighted average price of the LMP of the resources in the MSS. If the MSS is a net incremental demand then the net incremental demand will be settled at the MSS specific LAP price.

The MSS may be a net supplier in RT, but a net demand incrementally (compared to DA), or vice versa. The DA Settlement (CC 6011) already nets the supply and demand schedules within the MSS and settles them accordingly to the following rule:

1. Day-Ahead net supply; Real-Time net supply: Net change in Real-Time deviation shall be settled at the weighted average price of RT nodal prices of generation nodes within the MSS.
2. Day-Ahead net demand; Real-Time net demand: Net change in Real-Time deviation will be settled at the RT MSS LAP price.

3. Day-Ahead net supply; Real-Time net demand: Net change in Real-Time deviation will be settled at the RT MSS LAP price.
4. Day-Ahead net demand; Real-Time net supply: Net change in Real-Time deviation shall be settled at the weighted average price of RT nodal prices of generation nodes within the MSS.

Please see the example in the document entitled "Response to S-9 Example" posted on the CAISO web site at <http://www.caiso.com/docs/2005/06/21/2005062113583824742.html> under the heading "MRTU Implementation Questions."

#### **CC 6474 - RT Unaccounted for Energy Settlement**

**Gross:** This will be settled at the CAISO LAP price regardless of the sign of the UFE

**Net:** This will be settled at the MSS-LAP price regardless of the sign of the UFE.

#### **CC 6475 - RT Uninstructed Imbalance Energy Settlement**

**Gross** This will be settled like any other non-MSS resource including Tier 1 and Tier 2 uninstructed imbalance energy settlement.

**Net:** If the MSS elects net settlement then there will not be an individual resource uninstructed imbalance energy settlement. Rather, uninstructed energy is netted already and the settlement for RT uninstructed Imbalance Energy is the same as the settlement for Instructed Imbalance Energy. Refer to CC 6470

#### **CC 6486 - RT Excess Cost for Instructed Energy Allocation**

These costs are Tier 1 costs associated with Exceptional Dispatches that are not allocated to the PTO directly and which are associated with modeling limitations.

**Gross:**  $\max(0, \text{Net Negative Uninstructed Deviations} - \text{Incremental Energy Bids Available in RT})$

**Net:**  $\max(0, \text{Net Negative Deviations} - \text{Incremental Energy Bids Available in RT})$

The above is consistent with Tariff Section 11.5.6.2.5.2 and is consistent with current practice in which the CAISO does provide some protection of these OOS above market costs so long as the entity is offering sufficient incremental energy in real-time to cover its Net Negative Uninstructed Deviations. This will also include the RT energy bids that are protected by Load Following Up Capacity.

#### **CC 6620 – Bid Cost Recovery Settlement**

Please see the document posted at and entitled "MSS Bid Cost Recovery Rules."

#### **CC 6678 - Real Time Bid Cost Recovery Allocation**

This represents Measured Demand for any Gross Non-LF MSS and applies to Net Measured Demand for both Gross and Net Load Following MSS and for Net Non-LF MSS. Please see the document entitled "MSS Bid Cost Recovery (BCR) Rules," posted on the CAISO web site at <http://www.caiso.com/docs/2005/06/21/2005062113583824742.html> under the heading "MRTU Implementation Questions."

b) Assuming MSS elects Gross Settlement and the MSS' internal generation perfectly matches its Load, the following Charge Codes would apply:

- CC 6470 Real Time Instructed Imbalance Energy Settlement

- CC 6620 - Bid Cost Recovery Settlement (applies when Load Following Deviation Penalty is not violated)