Grid Management Charge

Training and Readiness

Grid Management Charge - Agenda

- Purpose
- Outline Structure
- Administrative and Transaction Fees
- TOR (Transmission Ownership Rights)
- Examples of the GMC charges

Grid Management Charge - Purpose

GMC is the vehicle through which the ISO recovers its administrative and capital costs from the entities that utilize the ISO's services.

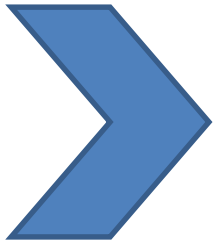
Grid Management Charge – Structure

- Three main categories or buckets:
  - Market Services
  - System Operations
  - CRR Services

*These categories will be allocated on gross MWh (capacity and CRR holdings) and MWh (energy)

Grid Management Charge – Structure

- Market Services category includes awards of:
  - Ancillary services
  - Schedules
  - Dispatch instructions



- Generation
- Load
- Imports
- Exports

**Please Note: This is excluding balanced TOR's (based on flow or etag)

Grid Management Charge – Structure

- System Operations category includes all flow quantities less balanced TOR quantities:
  - Generation
  - Load
  - Imports
  - Exports

System Operations will be total energy flow MWh, without regard to whether the flows were forward scheduled, instructed or uninstructed

Grid Management Charge – Structure

- CRR Services category includes:
  - Net MWh holdings of CRRs that are applicable to each hour
  - Designed to recover a portion of the CRR costs on a transactional basis

Grid Management Charge – Administrative and Transaction Fees

- Bid Segment Fee
  - Bid segment fee of $.005 will be applied to all bid segments submitted

- SCID Fee
  - This fee is $1,000 per SCID, per month (where there is Settlements activity within the trade month)

Grid Management Charge – Administrative and Transaction Fees

- IST (Inter-SC Trade) Fee
  - A fee of $1.00 per Inter-SC trade (each side of trade) will apply to the following billing determinants:
    - INTER-SC Trade (Absolute by Trade)
    - DAM TO-SC Inter-SC Trade Energy (Physical and Converted)
    - DAM FROM-SC Inter-SC Trade Energy (Physical and Converted)
    - DAM TO-SC Inter-SC Trade Energy (Financial)
    - DAM FROM-SC Inter-SC Trade Energy (Financial)
    - HASP TO-SC Inter-SC Trade Energy (Physical and Converted)
    - HASP FROM-SC Inter-SC Trade Energy (Physical and Converted)
    - HASP TO-SC Inter-SC Trade Energy (Financial)
    - HASP FROM-SC Inter-SC Trade Energy (Financial)
    - Ancillary Services TO-SC Inter-SC Trade Energy
    - Ancillary Services FROM-SC Inter-SC Trade Energy
    - RUC Obligation TO-SC Inter-SC Trade Energy

Grid Management Charge – Administrative and Transaction Fees

- CRR bid transaction fee:
  - Applies to the CRR allocation and auction process at a rate $1.00 per nomination or per bid (without consideration of the number of segments)
  - CRR nomination tiers and auctions are divided into time-of-use (TOU) periods per month and per season

Grid Management Charge – TOR (Transmission Ownership Rights)

- TOR (Transmission Ownership Rights) Fee:
  - Exempting 100% of TOR MWhs from the Market Services charge code
  - Apply a fixed $0.27 TOR rate to GMC TOR flow MWhs. Defined as the minimum of a SC's balanced TOR Supply MWhs and balanced TOR Demand MWhs

Examples of the GMC charges

Note: The GMC rates used in these examples are for illustrative purposes only and may not be reflective of today's rates.

Today's rates can be found on the GMC page

Grid Management Charge – Examples by Activity

Generation:

- Scenario: A generator submits a 4-segment energy bid in the day-ahead market and is scheduled for 100 MWh. The generator then submits a 4-segment energy bid to the real-time market and is decremented 10 MWh. Its real-time metered flow is measured at 90 MWh.

GMC charges would be:

- Market Services Charge (day-ahead schedule and real-time instructions): 110 MWh * $0.0836 = $9.20
- System Operations Charge (real-time metered flow): 90 MWh * $0.2899 = $26.09
- Bid Segment Fee: 8 * $0.005 = $.04

Total: $35.33

Grid Management Charge – Examples by Activity

Ancillary Services (1):

- Scenario 1: A generator submits an AS bid and is awarded 50 MW operating reserves in the day-ahead market for hour ending 9. No contingency event occurs in hour ending 9.

GMC charges would be:

- Market Services Charge (day-ahead and real-time schedules):

  50 MWh * $0.0836 = $4.18
- Bid Segment Fee: 1 * $0.005 = $0.005

Total: $4.18

Grid Management Charge – Examples by Activity

Ancillary Services (2):

- Scenario 2: A generator submits an AS bid and is awarded 50 MW operating reserve in the day ahead market for hour ending 9. The generator then submits a 4-segment energy bid in the real-time market and a contingency event occurs in hour ending 9 resulting in 50 MWh energy dispatch for 15 minutes.

GMC charges would be:

- Market Services Charge: 50 MW h * $0.0836 = $4.18
- System Operations Charge: (50 MWh / 4) * $0.2899 = $3.62
- Bid Segment Fee: 5 * $0.005 = $.03

Total: $7.83

Grid Management Charge – Examples by Activity

Load

- Scenario: Load self schedules 100 MWh in the day ahead market and its meter data shows that it consumed 100 MWh in real time.

GMC charges would be:

- Market Services Charge: 100 MWh * $0.0836 = $8.36
- System Operations Charge: 100 MWh * $0.2899 = $28.99
- Bid Segment Fee: 1 * $0.005 = $0.005

Total: $37.35

Grid Management Charge – Examples by Activity

Imports

- Scenario: An importer submits a 4-segment energy bid in the day-ahead market and is scheduled for 100 MWh. The importer then submits a 2-segment energy bid to the real-time market and is inc'd 10 MWh in HASP. The 110 MWh import schedule is then deemed delivered in real-time based on the final e-tag for the transaction.

GMC charges would be:

- Market Services Charge: 110 MWh * $0.0836 = $9.20
- System Operations Charge: 110 MWh * $0.2899 = $31.88
- Bid Segment Fee: 6 * $0.005 = $0.03

Total: $41.11

Grid Management Charge – Examples by Activity

Exports

- Scenario: An exporter submits a 4-segment energy bid in the day-ahead market and is scheduled for 100 MWh. The exporter then submits a 6-segment energy bid to the real-time market and is dec'd 10 MWh in HASP. The 90 MWh export schedule is then deemed delivered in real-time based on the final e-tag for the transaction.

GMC charges would be:

- Market Services Charge: 110 MWh * $0.0836 = $9.20
- System Operations Charge: 90 MWh * $0.2899 = $26.09
- Bid Segment Fee: 10 * $0.005 = $.05

Total: $35.34

Grid Management Charge – Examples by Activity

Convergence Bidder

- Scenario: A convergence bidder submits a 10-bid segment virtual demand bid in the day-ahead market for 100 MWh.

GMC charges would be:

- Market Services Charge: 100 MWh * $0.0836 = $8.36
- System Operations Charge: $0.00 (there is no real-time energy flow associated with virtual bids)
- Bid Segment Fee: 10 * $0.005 = $.05

Total: $8.41

Grid Management Charge – Examples by Activity

Inter-SC Trade

- Scenario: Scheduling Coordinator A schedules an inter-SC trade with Scheduling Coordinator B for 100 MWh.

GMC charges would be:

(for both Scheduling Coordinators A and B)

- Inter SC Trade Fee: 1 * $1.00 = $1.00

Total: $1.00 (each)

Grid Management Charge – Examples by Activity

CRRs

- Scenario 1: A Scheduling Coordinator bids and is awarded 100 MW CRR on peak or a LSE nominates and is allocated 100 MW CRR on peak during the October 2010 monthly process.

GMC charges would be:

- CRR Bid or Nomination Fee = 1 * $1.00 = $1.00
- CRR Charge: (100 MW * 416 hours) * $0.0117 = $486.72

Total: $487.72

Grid Management Charge – Examples by Activity

CRRs

- Scenario 2: A Scheduling Coordinator bids and is awarded 100 MW CRR on peak or a LSE nominates and is allocated 100 MW CRR on peak through the annual process and holds the CRR for all months of the year. Note that the number of hours in a month will be dependent upon the NERC calendar.

The GMC costs will be accrued monthly over the year.

We utilized October 2010 as a proxy to simplify the example:

GMC charges would be:

- CRR Bid Fee = 1 * $1.00 = $1.00
- CRR Charge: (100 MW * 416 hours) * $0.0117 = $486.72 per month

Total: $5,841.64

Grid Management Charge – Examples by Activity

- TOR Energy Flow

  TOR supply = 100 MWh, TOR demand = 60 MWh:
  TOR GMC is charged for 60 MWh.

  Minimum of a SC's balanced TOR Supply MWhs and balanced TOR Demand MWhs.

Additional Questions can be sent to:

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