2012 Grid Management Charge

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Purpose
Outline Structure
Grandfathering Provision
Administrative and Transaction Fees
TOR (Transmission Ownership Rights) Changes
Review New Settlement Charge Codes
Bill Determinants
Examples of the new GMC charges
GMC is the vehicle through which the ISO recovers its administrative and capital costs from the entities that utilize the ISO’s services.

– Creating a simplified and transparent rate design
– Increase clarity, predictability and simplicity
– Reduce the number of Service Categories
– Reduce the number of Settlement Charges
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)*
2012 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)**
2012 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
2012 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
2012 Grid Management Charge – Grandfathering Provision

- Under today’s GMC, a supplier that puts through the same volume as a load serving entity consumes pays approximately 60% less.
- For example, under the existing GMC, a base load generator pays $0.06 per MWh while an equivalent level of load pays $0.65 per MWh.
- The grandfathering approach is to help mitigate rate impacts on a finite number of customers.
- The proposed grandfathering provision would exempt units that meet the criteria from the System Operations charge until the first opportunity to renegotiate the contract or until the contract expires.
2012 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 will remain at the $1,000 per SCID, per month that have Settlements activity within a trade month.
2012 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
2012 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
2012 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.
2012 Grid Management Charge – Bill Determinants

• Market Services Billing Determinants:
  
  – Schedules and Awards (Absolute by Resource by Hour)
  – DA Generation Schedules (including MSS)
  – DA Import Schedules (including MSS)
  – DA Load Schedules (including MSS Gross Load) not net load
  – DA Export Schedules (including MSS)
  – DA Ancillary Service Awards
  – DA Ancillary Service Self Provision
  – Convergence Bidding Schedules
  – HASP Incremental and Decremental Energy (Non Dynamic)
  – HASP Incremental and Decremental Ancillary Service Awards

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2012 Grid Management Charge – Bill Determinants

- Market Services Billing Determinants..
  - HASP Incremental and Decremental Ancillary Service Self Provision
  - Real Time Optimal Energy
  - Real-Time Minimum Load Energy
  - Derate Energy
  - Real-Time Self Schedule
  - Real-Time Pumping Energy
  - Real-Time Incremental and Decremental Ancillary Service Awards
  - Real-Time Incremental and Decremental Ancillary Service Self Provision
2012 Grid Management Charge – Bill Determinants

Systems Operations Billing Determinants:
• Flow (Absolute by Resource by Settlement Interval)
  – Non Dynamic System Resource Deemed Delivered Energy
  – Dynamic System Resource Deemed Delivered Energy
  – Metered Generation Quantities
  – Metered Default and Custom LAP Load Quantities
  – Metered Pumping Energy
CRR Service Category

- CRR MWhs applicable for hours of each trading day through time-of-use (by Scheduling Coordinator by Financial Node)
  - Consider only source node (Pnodes/Apnodes/Trading Hub) per CRR holding

Many of the terms utilized for the above are defined in the appendix to the Market Operations business process manual at the following link: https://bpm.caiso.com/bpm/bpm/version/0000000000000109
Using proposed GMC rates and utilizing the grandfathering approach.

CC 4560 - Market Services rate: $0.0836  
CC 4561 - System Operations rate: $0.2899  
CC 4563 - System Operations TOR rate: $0.27  
CC 4562 - CRR Services rate: $0.0117  
CC 4515 - Bid Segment rate: $0.005  
CC 4512 - Inter SC Trade rate: $1.00  
CC 4516 - CRR Bid Segment Transaction fee: $1.00

*Please note that the SCID fee of $1,000 per month would apply to all activities listed in addition to the individual transaction charges.
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
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
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
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
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
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
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
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: $1.00

Total: $1.00 (each)
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
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
2012 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.
2012 Grid Management Charge

Questions?????????????
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Thank you for attending!

Additional Questions can be sent to:
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