

# **Review of Grid Management Charge Historical Perspective and Future under MRTU**

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# Topics

- **GMC Themes**
- **History of Grid Management Charge (GMC)**
- **GMC under MRTU**
- **Conclusion**

## GMC Themes

- **Evolutionary process**
  - Less “peanut butter”
  - More detail and specificity
  - Partially litigation driven
- **Complexity weighed against**
  - Desire for simplicity
  - Cost effectiveness
  - Differential impact on customers

## History of GMC

- **Pre-Unbundling**                      **Apr. 1998 – Dec. 2000**
- **First Unbundling**                      **Jan. 2001 – Dec. 2003**
- **Second Unbundling**
- **2004 GMC Settlement**              **Jan. 2004 – Dec. 2007**

## Pre-Unbundling

- **Apr. 1998 – Dec. 2000**
- **Single charge GMC**
  - Assessed to load and exports
  - Discounted or exempted rate for certain flows over ETCs
- **Customer issues**
  - Paying for services not used
    - “Behind the meter” load
  - Paying new charges for the same service

## First Unbundling

- **GMC redesign project (1998-2000)**
  - Amendment No. 32 (ER01-313-000)
- **Jan. 2001 – Dec. 2003**
- **Three GMC Charges**
  - Control Area Services
  - Congestion Management
  - Market Operations
- **Control Area Services**
  - Managing transmission flows in the Control Area
  - Assessed to Control Area Gross Load
    - Load and exports
    - Estimate of “behind the meter load”

## First Unbundling (cont.)

- **Congestion Management**
  - Managing interzonal scheduling and congestion
  - Assessed to net final Hour Ahead scheduled interzonal flows (in MWhs)
  - Exemption for flows on ETCs
- **Market Operations**
  - Managing AS and RT markets
  - Assessed to purchases and sales of AS, Supplemental Energy, Instructed and Uninstructed Imbalance Energy (in MWhs)

## First Unbundling (cont.)

- **Customer issues**
  - Paying for services not received
    - “Behind the meter” load
      - Standby Load
      - Governmental entities
  - Paying new charges for the same service
  - More unbundling needed

## Second Unbundling

- **GMC redesign project (2002-2003)**
  - Under FERC direction
  - Filed in Oct. 2004 (ER04-115-000)
- **Began stakeholder process late summer 2002**
- **Focus on development of:**
  - Definitions and methodology
  - Data gathering
  - Alternatives to volumetric charges
  - Analysis of impacts

## Second Unbundling (cont.)

### ■ Functions

- Grid Reliability Services (reliable operation of transmission grid)
  - Core Reliability Services (minimum operating system)
  - Energy Transmission Services (variable, scalable)
- Market Services (operating, maintaining and improving ISO markets)
  - Forward Scheduling
  - Congestion Management
  - Market Usage
- Settlements, Metering and Client Relations (customer service function)

## Second Unbundling Filed Rate Structure

- **Grid Reliability Services**
  - Core Reliability Services (Non-coincident peak demand, per MW-month)
  - Energy Transmission Services
    - Energy Transmission Services – Net Energy (load and exports, per MWh)
    - Energy Transmission Services – Net Uninstructed Deviation (over settlement interval, per MWh)

## Second Unbundling Filed Rate Structure (cont.)

### ■ Market Services

- Forward Scheduling (Final hourly schedule submitted to CAISO, per schedule)
  - Load and generation
  - Import and export
  - Ancillary Services, including self-provided
- Congestion Management (Net final HA scheduled interzonal flows, per MWh)
- Market Usage
  - Purchases and sales of Ancillary Services capacity (per MWh)
  - Instructed Energy (per MWh)
  - Net Uninstructed Deviation (netted over settlement interval, per MWh)

## Second Unbundling Filed Rate Structure (cont.)

- **Settlements, Metering and Client Relations (fixed monthly charge by SC ID for settlement activity)**
- **Resulting in seven charge types**
  - CT 570                      CRS
  - CT 571                      ETS-NE
  - CT 532/572                ETS-UE
  - CT 573                      FS
  - CT 522                      CONG
  - CT 534/574                MU
  - CT 575                      SMCR

## Second Unbundling Filed Rate Structure (cont.)

- **Other important considerations**
  - “Behind the meter” load for recovery of Grid Reliability Services costs
    - No estimation of “behind the meter” load
    - Exemption for “behind the meter” QF load (standby load)
    - Metering requirement on load a compliance issue
  - Settlements, Metering and Client Relations charge
    - Average cost of approximately \$40,000 per SC ID per month
    - Charge set at \$500 per customer-month
    - Unrecovered revenue allocated to other charges
      - Allocation based on estimated use of settlements system

## 2004 GMC Settlement

- **Unintended consequence**
- **Bill impacts**
- **Accommodations**
- **Reserved issue**
- **Results**

# 2004 GMC Settlement Unintended Consequence

- **Impact of CRS demand on exports**
  - Disproportionate impact on intermittent exports
  - Disproportionate impact on Real Time exports during overgen conditions
  
- **Resolution**
  - Create separate volumetric export charge
  - CRS demand charge applies only to load, not exports
  - Impact on high load factor exporters relative to low load factor exporters

## 2004 GMC Settlement Mitigate Bill Impacts

- **Impact of CRS demand charge on certain Loads**
  - Disproportionate impact on SCs with low load factors
  - No differentiation between peak and off peak loads
- **Resolution**
  - Reduction in CRS revenue requirement
    - Increase in ETS-NE revenue requirement
  - Development of CRS peak and off peak demand charges
    - Peak period (HE07 – HE22)
    - Off peak period (all other hours)

## 2004 GMC Settlement Mitigate Bill Impacts (cont.)

- **Impact of FS on certain SCs**
  - Disproportionate impact on traders and marketer
  - Little or no GMC liability previously
- **Resolution**
  - Reduction in FS revenue requirement
    - Increase in CONG revenue requirement
  - Discounted rate for Inter SC Trades
    - Allocation to revenue requirement of other rates

## 2004 GMC Settlement Accommodations

- **Mohave export rate**
  - Discounted export rate for Mohave exports to Nevada Power and Salt River Project
  - Includes CRS and ETS-NE
- **MID fixed payment amount**
  - Fixed \$75,000 monthly payment for MID transactions scheduled under PG&E's PGAB SC ID
  - Required special manual procedure
- **PGAB Inter SC Trades**
  - Discounted Inter SC Trade rate under PG&E ID PGAB
- **Market Usage Charge Types**
  - Created separate Charge Types for each billing determinant under MU

## 2004 GMC Settlement Reserved Issue

- **Payment of GMC by APS and IID flows on the Southwest Power Link**
  - Ability of SDG&E to pass through CAISO GMC and market charges to joint owners
  - Settlement in separate sub-Docket
  - Requirement for separate refund accounting

# 2004 GMC Settlement Results

- **CRS**
  - Demand (load only)
    - Peak **CT 4501**
    - Off peak **CT 4502**
  - Exports (volumetric) **CT 4503**
- **Mohave exports** **CT 4504**
- **ETS**
  - Net Energy **CT 4505**
  - Net Uninstructed Deviations **CT 4506**
- **Forward Scheduling**
  - Schedules **CT 4511**
  - Inter SC Trades **CT 4512**
  - PGAB Inter SC Trades **CT 4513**

## 2004 GMC Settlement Results (cont.)

- **Congestion Management** **CT 4522**
- **Market Usage**
  - Purchases and sales of AS **CT 4534**
  - Instructed Energy **CT 4535**
  - Net Uninstructed Deviations **CT 4536**
- **SMCR** **CT 4575**
- **MID fixed payment** **CT 4576**

## 2004 GMC Settlement Results (cont.)

- **GMC reruns/refunds**
  - Preliminary 2004 rerun/refund
    - \$220 million rebilled
    - \$0.3 million in net interest paid
    - \$6 million net refund to customers
    - Outside settlements system
  - Jan.-June 2005 refund
    - \$80 million rebilled
    - \$0.1 million in net interest paid
    - \$2 million in additional GMC paid by customers
    - Using settlements system
- **MID fixed payment**
  - Quarterly true-up
  - Coordination with MID and PG&E

## 2004 GMC Settlement Results (cont.)

- **Term through Dec. 31, 2006**
- **Extended to Dec. 31, 2007**
  - Docket No. ER06-1282-000
  - Deleted MID fixed payment (MID no longer in Control Area)
- **Began GMC under MRTU stakeholder discussions in late summer 2006**

## GMC under MRTU

- **Agreement on:**
  - Minimizing changes to existing rate structure
  - Understanding and analyzing impacts of changes prior to agreement and implementation
- **“Baseline” rate structure**
  - Providing outline of potential GMC rate structure
  - Allowing coding in SaMC
- **Additional discussions to finalize**
  - Allocations
  - Rates

## GMC under MRTU (cont.)

### ■ MRTU driven changes

- Eliminate Congestion Management bill determinant
- Include additional new services (new bill determinants)
  - Forward scheduling
    - Awarded RUC schedules
    - Trades of IFM uplift obligations
  - Market Usage
    - Real Time purchases and sales of AS
    - Day Ahead net energy

### ■ Potential accommodation

- Deviations netted during month for PIRP resources
  - ETS-UE
  - Market Usage

## GMC under MRTU (cont.)

- **Other changes**
  - Eliminate Mohave export rate
  - Consider ETS charge for Injections (generation and imports)
- **Further discussions on:**
  - Analyzing cost of service
  - Developing allocations
  - Finalizing rate structure

## Observations

- **“Peanut Butter” no more**
- **Unbundling into more “discrete” services**
- **Detailed analysis provided to customers**
- **Mitigate or phase in charges to reduce impacts**