



California ISO
Your Link to Power

Briefing on Cost of Service Study

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Stakeholder Meeting
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Agenda

Where we are

Timeline

GMC history

Guiding Principles

Activity Based Costing Overview

Functionalization

Cost Allocation of 2010 Revenue Requirement

Comparison to other ISO/RTOs

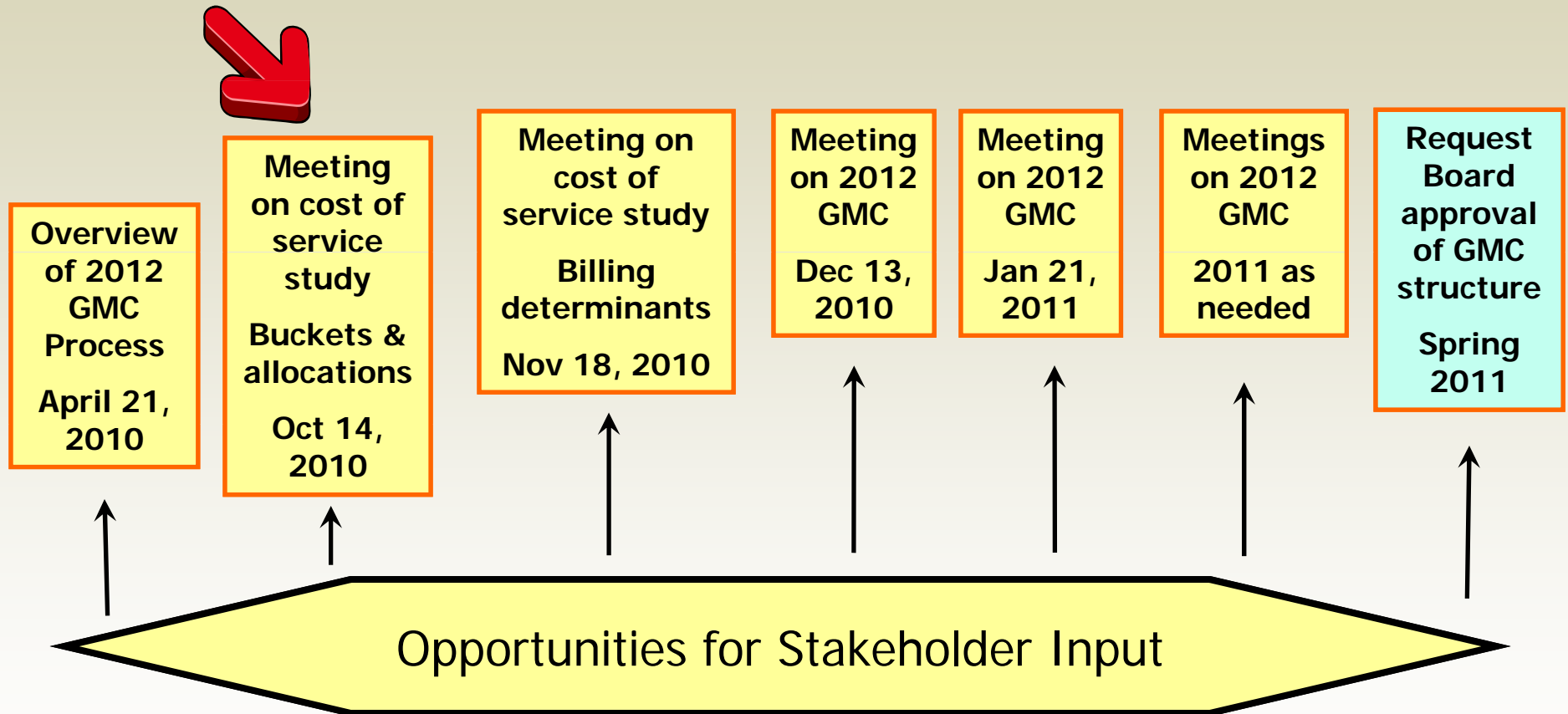
Potential Billing Determinants

Key Calendar Dates

Stakeholder Feedback and Discussion

Timeline for GMC 2012 Rate Structure

You are here



Timeline for 2012 GMC

■ Cost of Service Study

Current

- Define services (functionalization)
- Allocate costs (cost allocation)

Next steps

- Billing determinants (classification)
- Bill impact analysis

■ Subsequent steps

- Final rates and structure
- Revenue requirement cap
- Draft tariff
- Board approval and FERC filing

GMC History

- Basic structure is the same as 2004 with limited changes
 - Added Market Usage Forward Energy (MUFE)
 - Changed some billing determinants
 - Changes for convergence bidding
- Drivers for change
 - Corporate reorganizations
 - New office building debt
 - Retirement of debt for new market in 2013
 - Implementation of new market in 2009
 - Requests for clarity, predictability & simplicity from customers
 - Commitment to do cost of service study in 2010 MUFE settlement

Guiding Principles

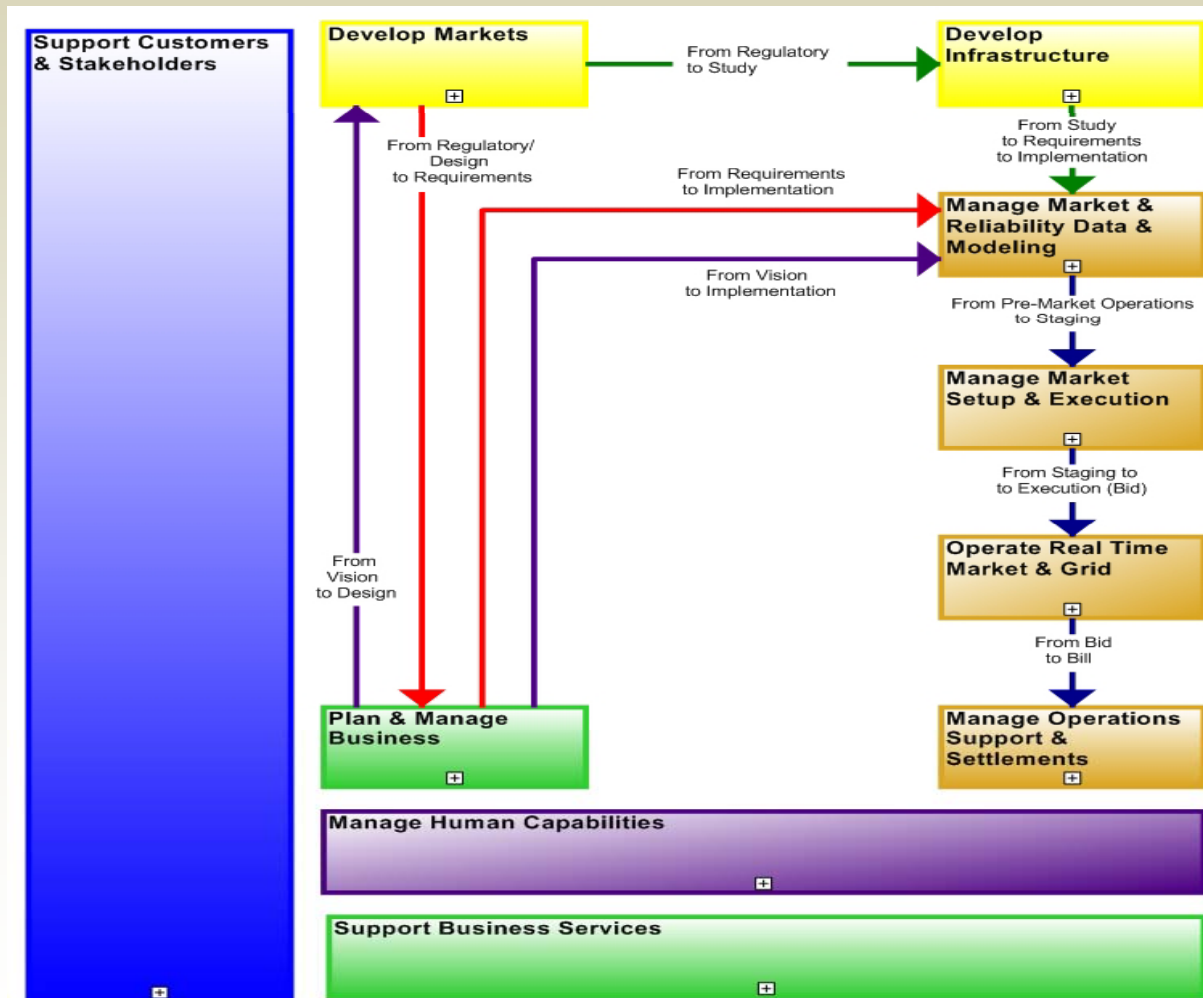
- Cost causation – properly allocate to category and charged to those who use or benefit
- Focus on use of services, not behavior – design fee structure to recover ISO's costs, charges that influence behavior should be in market structure
- Transparency – costs and determinants highly visible to customers
- Predictability – in advance Scheduling Coordinators (SCs) are able to determine what costs will be
- Forecastability – SC's & ISO's forecasts of determinants are more accurate resulting in fewer quarterly changes
- Flexibility – accommodate future market enhancements without new buckets or charges
- Simplicity – reduce current level of determinants and codes

Recent Issues With Existing GMC

- Implementation of convergence bidding – required new category and 2 new charge codes
- MUFE – original netting was challenged and mitigation implemented prior to moving to gross and new review of Inter-SC Trades (ISTs)
- Significant changes in rates – lower export volumes cause rate increases which leads to reduction in exports – vicious cycle
- Current design attempts to manage behavior – charge for imbalances – difficult to forecast & uplift charges through market provide appropriate incentive
- Congestion Revenue Rights (CRR) recovery – none currently
- Settlements, Metering & Client Relations (SMCR) under recovery – inappropriate way to recover indirect costs not related to cost of handling SCIDs

Activity Based Costing (ABC) overview

- Started in 2009
- 10 high level activities
- 125 sub (level 2) activities
- Tracking time for some level 2 activities now
- Level 2 mapping ongoing through 2011
- Time tracking on level 2 as mapped



Direct Level 1 Operating Activities

- Develop infrastructure – transmission planning
- Develop markets – design & implement wholesale market
- Manage market & reliability data & modeling - full network model
- Manage market setup & execution – scheduling & outages
- Operate real time market & grid – system operations
- Manage operations support & settlements – metering, settlements and market quality

Indirect Level 1 Support Activities

- Manage human capabilities – human resources
- Plan & manage business – CEO, planning & governance
- Support business services – IT, facilities, compliance & legal
- Support customers & stakeholders – client & external relations

ABC Functionalization Leads To Services

- Existing structure – little direct relationships
- Using products not practical – too many elements
- Using customers – similarities across customer classes
- New ISO market – common practice for all customers

**Customers
submit bids**

**Market systems
award schedules**

Energy flows

plus CRR management leads to three cost categories

**Market
Services**

**System
Operations**

**CRR
Services**

Mapping Activities & Software To Service Categories

- Mapped activities and software to four categories:
 - Market services
 - System Operations
 - CRR services
 - Indirect costs – no distinguishable attribute to either specific category
- Used following rules:
 - 100% or 0% if entirely in one category or not
 - 50% / 50% if supports both market services & system operations
 - or its split after 10% went to CRRs thus 45% / 45%
 - 80% / 20% if partially in one activity or the other

Cost Allocation of 2010 Revenue Requirement

- Selected 2010 as it is current, similar to 2009 & 2011 and can be used to measure effects of proposal

| Revenue Requirement | \$ in thousands |
|--------------------------------------|-----------------|
| O&M | \$162,695 |
| Debt service & out of pocket capital | 76,000 |
| Other income | (8,100) |
| Operating reserve credit | (35,500) |
| Total revenue requirement | \$195,095 |

2010 O&M Costs

- Broken down into two types: activity related & non-activity related
 - Mapped non-activity to indirect bucket
- Activity related types made up of
 - direct operating costs mapped to level 2 activities and
 - support costs mapped at level 1 to indirect bucket
- Used reported time from 1st quarter of 2010 to get % of costs centers time in the 10 level 1 activities
- For time in the 6 direct operating categories - interviewed managers and directors to get percentage breakdown of level 2 time
- Mapped costs to buckets using %'s developed previously

Other Components of 2010 Revenue Requirement

- Debt service & out of pocket capital
 - Mapped software and other capital costs to buckets using %s developed previously
- Other revenue & operating reserve credit
 - Mapped to appropriate buckets
- Results of allocation:

| Revenue Requirement | 2010 Budget | Market Services | System Operations | CRR Services |
|---------------------|-------------|-----------------|-------------------|--------------|
| \$ in thousands | \$195,095 | \$52,756 | \$134,883 | \$7,456 |
| % of budget | 100% | 27% | 69% | 4% |

Comparison to other ISOs

- ISO/RTOs with a nodal market
 - NYISO – 3 major buckets added new one for virtual bids
 - ISO NE – 3 buckets
 - PJM – 3 major buckets, 2 minor ones
 - MISO – 3 buckets
- Cal ISO – 7 buckets and 17 charge types
- All have generic market services & system operations
- 3 have bucket related to congestion
- All allocate indirect costs based on direct costs (salaries)

Potential Billing Determinants

- Allocation to demand -
 - load & exports or
- Allocation to supply and demand –
 - generation & imports
 - load & exports
- Transaction fees
 - Bid fee
 - Inter -SC trade fee
- Administrative charges
 - Monthly SCID charge

Key Calendar Dates & Next Steps

- | | |
|------------------------------------------------|-----------|
| ■ Stakeholder comments on discussion paper due | Oct 21 |
| ■ Discussion paper on billing determinants | Nov 11 |
| ■ Stakeholder meeting on billing determinants | Nov 18 |
| ■ Stakeholder comments on discussion paper due | Nov 29 |
| ■ Stakeholder meeting | Dec 13 |
| ■ Stakeholder meeting | Jan 21 |
| ■ Stakeholder meetings | as needed |