
Business Requirements Specification

2012 Grid Management Charge

Version 1.0

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 California ISO <small>Shaping a Renewed Future</small>	Program Lifecycle – 2012 Grid Management Charge		
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Introduction

1.1 Purpose


The purpose of this document is to capture and record a description of what the Users and Business Stakeholders of the project wish to obtain by providing high-level business requirements. This document establishes the basis for the bilateral agreement between the initiators and implementers of the project. The information in this document serves as input to determining the scope of Information Systems projects and to all Business Process Modeling and System Requirements Specifications efforts.

These requirements are intended for submission to the Information Technology Services (ITS) department and will serve as the initial set of business unit requirements for the appropriate software application/systems development effort. It is understood that ITS will perform additional requirements and systems analysis and may produce “To Be” Business Process Models, System Requirements Specifications, and Use Cases to serve as the set of requirements documents used by the ITS development teams to buy, modify, or build the necessary software and hardware systems. The Business Unit(s) involved in the project will have an opportunity to review and approve all ITS requirements documentation produced.

1.2 References

All references represent external requirements documents or stakeholder requests developed and submitted by the Business Units.

1. Policy-related documents, including the Draft Final Proposal and stakeholder comments are located on the “2012 Grid Management Charge” Stakeholder Initiatives web page at:
<http://www.caiso.com/281a/281ac7f165ad0.html>

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2. Details of Business Need/Problem


2.1 Description

The California Independent System Operator Corporation (the ISO) proposes to substantially revise the design of its grid management charge (GMC) beginning on January 1, 2012. The GMC is the vehicle through which the ISO recovers all of its annual administrative, operating and capital costs from the entities that utilize the ISO's services.

The current GMC formula rate structure includes seven cost categories (buckets) consisting of seventeen separate charge codes, and is based largely on a settlement agreement with stakeholders approved by the FERC on September 22, 2005 for the period January 1, 2004 through December 31, 2006, and has been extended annually since that time.

In redesigning the GMC rate structure, the ISO recognized that the current rate design lacked clarity, predictability, and simplicity among other concerns raised by stakeholders. Accordingly, the ISO reduced the number of service categories to three (Market Services, System Operations, and Congestion Revenue Rights (CRR) Services). In addition, there are several administrative fees. With these changes the ISO significantly reduced the need for the number of Settlement charge codes.

The GMC initiative will involve software changes to Settlement and Congestion Revenue Rights (CRR) systems. The ISO shall request services from the vendor Nexant to provide data from the CRR system to Settlements. These changes will commence once we receive Board of Governors approval.

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3. Business Process Impacts

3.1.1 Pros

By implementing this initiative, stakeholders will gain a greater GMC clarity, predictability and simplicity in the rate design.


3.1.2 Cons

N/A

3.2 Justification

The grid management charge (GMC), as the vehicle through which the ISO recovers its administrative costs, is a formula rate whereby the ISO's revenue requirement is allocated based on a matrix of percentages reflecting the activities of all the ISO cost centers to a set of GMC components, and then ultimately to GMC charge codes. The current rate structure expires December 31, 2011. After conducting a detailed cost of service study and an extensive stakeholder process, the ISO is proposing a simplified and transparent rate design.

The decision to redesign the GMC is based on five primary drivers: 1) corporate reorganization; 2) changes in debt structure due to the ISO's construction of a new office building; 3) imminent repayment of the bonds issued to fund the ISO's comprehensive market design that began operation on April 1, 2009; 4) implementation of the new market rules and procedures under the new market structure that began in 2009; and 5) requests by stakeholders for greater GMC clarity, predictability, and simplicity.

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4. Business Requirements


The sections below describe the Business Processes and the associated Business Requirements involved in the project. These may represent high level functional, non-functional, reporting and/or infrastructure requirements. These business requirements directly relate to the high level scope items determined for the project.

4.1 Business Process: Grandfathering Provisions

The ISO acknowledges that the new GMC design results in significant bill impacts to certain customers. The primary factor behind these potentially large impacts is that the current GMC does not charge for through-put (i.e. energy flow in MWh), but does assess charges based on behavior, particularly real-time uninstructed imbalance energy or deviations. Under the proposed 2012 GMC structure the billing determinant for System Operations will be total energy flow MWh, without regard to whether the flows were forward scheduled, instructed or uninstructed. The ISO proposes to implement a grandfathering approach to mitigate rate impacts on a finite number of customers.

4.1.1 Business Requirements

ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ001	Market Participants must submit the following information in order to be considered for grandfathering: 1). Effected timeline (Start/End date) 2). Resource ID 3). SCID or BAID 4). Effected MW	Core Tariff Requirement Appendix F Schedule 1 Part E	Finance, Legal, Billing & Settlements	ETerra
GMC-BRQ002	CAISO internal template must be able to specify data on a monthly basis.	Core	Finance, Legal, Billing & Settlements	ETerra
GMC-BRQ003	The GMC grandfathering provision shall exempt units that meet the criteria from the System Operations charge until the first opportunity to renegotiate the contract or until the contract expires.	Core Tariff Requirement Appendix F Schedule 1 Part E	Finance, Legal, Billing & Settlements	ETerra

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ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ004	An officer of the generation owner company will be required to provide the ISO a signed affidavit attesting to the information that demonstrates the contract's eligibility for grandfathering.	Regulation Tariff Requirement Appendix F Schedule 1 Part E	Finance, Billing & Settlements	ETerra, TBD
GMC-BRQ005	The criteria that will be used for determining units that are eligible for the grandfathering provisions are: 1). The contract precludes the supplier from recovering the additional GMC costs under the 2012 design from the buyer; 2). The contract must have been executed prior to 1/1/2011; 3). The duration of the contract must be three years or greater (until the first exit provision); 4). The generation owner must be the scheduling coordinator; 5). The contract may not be with another scheduling coordinator that has the same parent company as the generation owner; 6). The contract may not be with the same scheduling coordinator ID as generation unit;	Core Tariff Requirement Appendix F Schedule 1 Part E	Finance, Billing & Settlements	ETerra

4.2 Business Process: Treatment of Transmission Ownership Rights

Under the existing GMC, Transmission Ownership Rights (TORs) are granted a discounted rate due to the limited ISO services they require. TORs will continue to receive a discounted rate in the new GMC structure because the fundamental premise has not changed.

4.2.1 Business Requirements

ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ006	The ISO shall exempt 100% of TOR MWs from the Market Services charge code.	Core Tariff Requirement 11.22.4	Billing & Settlements	ETerra

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ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ007	The ISO shall apply a fixed \$0.27 System Operations TOR charge rate to TOR flow MWhs, but applying that rate only to the minimum of a Scheduling Coordinator's TOR supply MWhs or TOR Demand MWhs.	Core	Billing & Settlements	ETerra

4.3 Business Process: Market Services

The Market Services category includes awarded ancillary services MW, schedules and dispatch instructions of generation, imports, load, and exports.

4.3.1 Business Requirements

ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ008	The Market Services charge code shall be designed to recover costs the ISO incurs for running the markets.	Core Tariff Requirement 11.22.25.5.1	Billing & Settlements	ETerra
GMC-BRQ009	The Market Services charge code shall be applied to each scheduling coordinator's gross absolute value of awarded MWh of energy and MW per hour of ancillary services in the forward and real time markets.	Core Tariff Requirement Appendix F Schedule 1 Part A	Billing & Settlements	ETerra

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ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ010	The Market Services charge code must apply to the following bill determinants: <u>Schedules and Awards (Absolute by Resource by Hour):</u> DA Generation Schedules (including MSS) DA import Schedules (including MSS) DA Load Schedules (including MSS Gross Load) DA Export Schedules (including MSS) DA Ancillary Service Awards DA Ancillary Service Self Provisions Convergence Bidding Schedules (as specified by Pnode) HASP Incremental and Decremental Energy (Non Dynamic) HASP Incremental and Decremental AncillaryService Awards 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 AncillaryService Awards Real-Time Incremental and Decremental Ancillary Service Self Provision	Core	Billing & Settlements	ETerra
GMC-BRQ011	The Market Services system impact shall not be dependent upon whether the bid is virtual demand or virtual supply.	Core	Billing & Settlements	ETerra
GMC-BRQ006	The ISO shall exempt 100% of TOR MWhs from the Market Services charge code.	Core	Billing & Settlements	ETerra
GMC-BRQ012	MSS Load Following instructed imbalance energy shall be excluded from the Market Services GMC charge. The cost causation impacts of this function shall be recovered through the System Operations charge.	Core Tariff Requirement Appendix F Schedule 1 Part A	Billing & Settlements	ETerra


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4.4 Business Process: System Operations

The System Operations category includes all flow quantities for generation, load, imports, and exports. The fundamental purpose of System Operations is to reliably balance supply and demand. The System Operations charge code is designed to recover costs the ISO incurs for running the grid in real time.

4.4.1 Business Requirements

ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ013	The System Operations charge code shall be applied to each scheduling coordinators gross absolute value of actual real-time MWh energy flow excluding TOR.	Core Tariff Requirement 11.22.2.5.2	Billing & Settlements	ETerra
GMC-BRQ014	The System Operations GMC category shall be based on gross MW per hour (capacity) and MWh (energy).	Core Tariff Requirement Appendix F Schedule 1 Part A	Billing & Settlements	ETerra
GMC-BRQ015	The GMC shall be designed in a manner that provides symmetrical marginal costs regardless of the technology used to provide the service (load and generation).	Core	Billing & Settlements	ETerra
GMC-BRQ016	The marginal cost of the underlying technology must determine its competitiveness in the ISO market, not a difference attributed to GMC rate differential.	Core	Billing & Settlements	ETerra
GMC-BRQ017	The System Operations charge code must apply to the following billing determinants: <u>Flow (Absolute by Resource by Settlement Interval):</u> Non Dynamic System Resource Deemed Delivered Energy Dynamic System Resource Deemed Delivered Energy Metered Generation Quantities Metered Default LAP Load Quantities Metered Custom LAP Load Quantities (Including MSS Gross Load) Metered Pumping Energy	Core	Billing & Settlements	ETerra


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4.5 Business Process: Congestion Revenue Rights (CRR) Services

The CRR Services charge code is designed to recover costs the ISO incurs for running the CRR markets. The CRR Services category includes the total awarded MW per hour of CRRs.

4.5.1 Business Requirements

ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ018	<p>The CRR Services charge code shall be applied to each CRR Holder's net MW holdings of CRRs that are applicable to each hour.</p> <p>Business Rule: The ISO shall leverage ownership payload to send CRR daily netted amounts to be used in determining the GMC value.</p>	Core Tariff Requirement Appendix F Schedule 1 Part A	Billing & Settlements Market Information	CRR, ETerra
GMC-BRQ019	<p>The CRR Services charge code shall be based on the following bill determinants (annual and monthly auctions and allocations): <u>CRR MWs (Net by CRR Holder by CRR holding by Time of Use):</u> Daily Financial Node CRR Quantity</p> <p>Only the non-negative bill determinant quantity shall be used. The non-negative bill determinant quantity shall be multiplied by the number of applicable hours for each day as determined by the Time of Use of the CRR holding. Alternatively, a new bill determinant representing this product shall be used.</p>	Core	Billing & Settlements Market Information	CRR, ETerra
GMC-BRQ020	<p>CRR shall send nomination/bid id by CRR Holder and market to Settlements. This data shall be sent after the relevant CRR Market closes.</p> <p>Business Rule: Trade date shall be the first day of the following month (following the close of the auction or allocation).</p>	Core	Billing & Settlements Market Information	CRR, ETerra
GMC-BRQ021	CRR transaction fee shall be based on CRR nomination or bid (not at the bid segment level).	Core Tariff Requirement 11.22.6	Billing & Settlements Market Information	CRR, ETerra

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ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ022	The CRR bid transaction fee shall be designed to recover a portion of the CRR costs on a transactional basis. The fee will apply to the CRR allocation and auction processes.	Core	Billing & Settlements Market Services	CRR, ETerra
GMC-BRQ023	The CRR bid transaction fee shall be set at a rate of \$1.00 final accepted bid.	Core Tariff Requirement 11.22.6	Billing & Settlements Market Information	CRR, ETerra
GMC-BRQ024	CRR transaction fee data provided shall include BAID, Market Name, Trade Date, and Bid/Nomination Quantity.	Core	Billing & Settlements Market Information	CRR, ETerra
GMC-BRQ025	CRR transaction fee shall be based on final submitted nominations and/or bids used for the relevant market.	Core	Billing & Settlements Market Information	CRR, ETerra

4.6 Business Process: Administrative and Transaction Fees

There are several administrative and transaction fees which will be used in the new market design. These fees will be structured in a way that allows market participants to determine if it is economic to incur the costs associated with using the service in question while taking into consideration negative impacts to market participation if fees are too high.

4.6.1 Business Requirements

ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ026	The bid segment transaction charge shall be set at \$0.005 per bid segment and will be applied to all bid segments submitted.	Core Tariff Requirement 11.22.5	Billing & Settlements	ETerra
GMC-BRQ027	The inter-SC trade fee shall be designed to recover costs directly related to the scheduling and settling of inter-SC trades.	Core Tariff Requirement 11.22.7	Billing & Settlements	ETerra

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ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ028	A fee of \$1.00 per inter-SC trade (each side of trade) must apply to the following billing determinants: <u>INTER-SC Trade (Absolute by Trade):</u> 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	Core (Existing charge code 4512) – No change required	Billing & Settlements	ETerra
GMC-BRQ029	The station power fee shall not be a separate GMC charge. The full costs shall be recovered in the System Operations charge code.	Core	Billing & Settlements	ETerra
GMC-BRQ030	The Participating Intermittent Resource Process fee shall be terminated with the new GMC rate design	Core Tariff Requirement Appendix F Schedule 4	Billing & Settlements	ETerra

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4.7 Business Process: Revenue Requirement Cap

The GMC redesign initiative also establishes a new revenue requirement cap. The previous cap was set at \$195 million in 2004 and increased to \$197 million in 2006. One year extensions of the revenue requirement cap and current GMC rate design have been approved for each year thereafter, including 2011.

4.7.1 Business Requirements

ID#	Business Feature	Requirement Type	Business Unit(s) Affected	Potential Application(s) Impacted
GMC-BRQ031	A \$197 million revenue requirement cap shall be set as the baseline in 2012. The cap shall then be increased once in 2013 to \$199 million and remain at that level for 2013 and 2014.	Core Tariff Requirement 11.22.2.5	Finance, Legal	TBD
GMC-BRQ032	The ISO shall retain the same process currently included in the tariff with respect to the revenue cap so that as long as the ISO's annual budget for each year does not exceed that year's revenue requirement cap, and there are no GMC rate design or billing determinant modifications proposed for the next year, the ISO will not be required to make a section 205 with FERC seeking approval for the next year's revenue requirement.	Core Tariff	Finance, Legal	TBD
GMC-BRQ033	The revenue requirement caps shall "sunset" on December 31, 2014 and the ISO must make a 205 filing with FERC for the GMC that would become effective on January 1, 2015.	Core Tariff	Finance, Legal,	TBD