Decision 11-07-039 July 28, 2011

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company (U39E) for Review of Entries to the Energy Resource Recovery Account (ERRA) and Renewables Portfolio Standard Cost Memorandum Account (RPSMA), and Compliance Review of Fuel Procurement for Utility Retained Generation, Administration of Power Purchase Contracts, and Least Cost Dispatch of Electric Generation Resources for the Record Period of January 1, through December 31, 2009 and for Adoption of Electric Revenue Requirements and Rates Associated with the Market Redesign and Technology Upgrade (MRTU) Initiative (U39E).	Application 10-02-012 (Filed February 12, 2010)

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DECISION FINDING A REVENUE REQUIREMENT OF $18.3 MILLION FOR PACIFIC GAS AND ELECTRIC COMPANY AND APPROVING VARIOUS ACCOUNTS

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DECISION FINDING A REVENUE REQUIREMENT OF $18.3 MILLION FOR PACIFIC GAS AND ELECTRIC COMPANY AND APPROVING VARIOUS ACCOUNTS

1. Summary

This decision finds that Pacific Gas and Electric Company's (PG&E) administration of its Energy Resource Recovery Account (ERRA) power purchase agreements, its utility retained generation administration relative to fuel costs, its procurement least-cost dispatch activities, and its procurement-related revenue and expenses recorded in its ERRA for the 2009 Record Period were prudent. PG&E's administration of its allocated California Department of Water Resources contracts, conventional generation contracts, renewable energy contracts, Average Market Price demand response contracts, and non-QF contracts were prudent. PG&E should be authorized to recover in 2012 rates the $18.3 million revenue requirement applicable to Market Redesign and Technology Upgrade (MRTU) capital costs, subject to an audit.

2. Introduction

Pacific Gas and Electric Company (PG&E) submits this application for Energy Resource Recovery Account (ERRA) compliance review for the record period January 1 through December 31, 2009. PG&E requests the Commission to find that during the record period PG&E made appropriate entries to its ERRA as well as to its Renewables Portfolio Standard Cost Memorandum Account (RPSCMA), and complied with its Conformed 2006 Long-Term Procurement Plan in the areas of fuel procurement for utility retained generation, administration of power purchase contracts, and least cost dispatch of electric generation resources. Also, PG&E proposes recovery of the actual, incremental costs it has incurred to implement the California Independent System Operator's

(CAISO) Market Redesign and Technology Upgrade (MRTU) initiative. PG&E requests authorization of $18.3 million MRTU-related electric revenue requirement to be effective in rates on January 1, 2012.

The Division of Ratepayer Advocates (DRA) performed an examination which covered PG&E's administration of power purchase agreements, least cost dispatch, utility retained generation fuel expenses and operations, an audit of the ERRA and RPSCMA balancing account entries, as well as the revenue requirements and rates associated with PG&E's MRTU implementation costs. Other than MRTU issues, DRA recommended no adjustments. In regard to MRTU, DRA recommended that all implementation expenses and associated revenue requirement be deferred to an investigation which included the MRTU expenses of all three major electric utilities: PG&E, Southern California Edison Company (SCE), and San Diego & Electric Company (SDG&E). If the MRTU issues are not deferred, DRA would limit the revenue requirement to $932,012.

3. ERRA Background

In 2002, the California Legislature and the Commission established the regulatory framework for PG&E, SCE, and SDG&E (collectively, the utilities) to resume electricity procurement, beginning January 1, 2003. In Decision (D.) 02-10-062, we established the ERRA balancing accounts for PG&E and the other utilities, requiring them to track fuel and purchased power revenues against actual recorded costs,[1] and to establish an annual ERRA compliance review for the previous year and, in a separate proceeding, an annual ERRA fuel and purchased power revenue requirement forecast for the following year.

4. MRTU Cost Recovery

On June 7, 2007, Commission Resolution E-4093 approved the MRTU Memorandum Account (MRTUMA), in which PG&E is authorized to record the revenue requirements associated with incremental MRTU expenditures, less the amount previously approved in PG&E's 2007 general rate case (GRC) for MRTU. Under the MRTUMA, PG&E can recover any revenue requirements recorded in the memorandum account in rates after PG&E has demonstrated the reasonableness of the underlying expenditures in a Commission proceeding. Subsequently, on July 23, 2008, in response to Advice Letter 3281-E-A, PG&E was authorized to create a demand response

[1] The ERRA records energy costs associated with serving bundled electric customers. These costs include post-2002 contracted resource costs, fuel costs of PG&E-owned generation resources, qualifying facility (QF) and purchased power costs, and other electric procurement costs such as natural gas hedging and collateral costs. The ongoing Competition Transition Charge (CTC) forecast revenue requirement consists of the above-market costs associated with eligible contract arrangements entered into before December 20, 1995, and QF contract restructuring costs. Ongoing CTC costs are recorded in the Modified Transition Cost Balancing Account (MTCBA).

subaccount in the MRTUMA to track MRTU costs related to demand response effective July 30, 2008.

We also discussed recovery of MRTU expenditures in PG&E's 2010 ERRA forecast proceeding.[2] We said that the scope of our review of PG&E's MRTU costs is not necessarily a traditional reasonableness review, stating '[t]he MRTU project is a project mandated by regulatory and reliability requirements of the California Independent System Operator and Federal Energy Regulatory Commission. Therefore, the Commission expects the review of these costs to primarily focus on whether the costs can be verified and are incremental."[3]

An earlier ruling issued in the 2010 ERRA forecast proceeding had determined that the MRTU issues were outside of the scope of that proceeding, and directed PG&E to include the MRTU costs in "PG&E's next general rate case, ERRA *reasonableness review*, or other appropriate proceeding."[4] Consistent with that direction, PG&E has included its request for MRTU cost recovery in this ERRA compliance proceeding. In this application, PG&E requests a determination that PG&E's actual capital expenditures to implement the initial MRTU market launch on March 31, 2009 (Release 1) , are reasonable; a determination that PG&E's actual capital expenditures related to the Pre-Summer Release of the Markets and Performance (MAP) phase of MRTU (operative August 2009) are reasonable; and a determination that PG&E's actual

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[2] Application (A). 09-06-001.

[3] D.09-12-021, at 3, fn. 1.

[4] August 17, 2009, Scoping Memo and Ruling of Assigned Commissioner at 3. (Emphasis added.)

incremental expenses incurred for MRTU from June 7, 2007,[5] when the Commission authorized PG&E's MRTUMA, through December 31, 2009, are reasonable.

PG&E seeks recovery in 2011 rates of $18.3 million in revenue requirement associated with MRTU implementation expenditures. PG&E proposes to recover the non-demand response portion of this revenue requirement through the Utility Generation Balancing Account (UGBA), and the demand response portion of this revenue requirement through the Demand Response Revenue Balancing Account (DRRBA). The approved MRTU cost recovery will be consolidated with other approved electric revenue requirement and rate changes through the Annual Electric True-Up (AET) to become effective in rates on January 1, 2012.

5. Issues To be Considered

1. In 2009, did PG&E make appropriate entries to its ERRA?
2. Did PG&E comply with the recovery requirements of Renewables Portfolio Standard Cost Memorandum Account (RPSCMA) and be allowed to recover the balance in this ERRA proceeding?
3. In 2009, did PG&E comply with its Conformed 2006 Long Term Procurement Plan in the areas of fuel procurement for utility retained generation, administration of power purchase contracts, and least cost dispatch of electric generation resources?
4. Should the Commission approve PG&E's request to find reasonable PG&E's capital expenditures to implement the initial MRTU market launch on March 31, 2009 (Release 1); PG&E's capital expenditures related to the Pre-Summer Release of the MAP phase of MRTU (operative August 2009); and the incremental expenses incurred for

[5] July 30, 2008 for incremental MRTU expenses related to demand response.

MRTU from June 7, 2007,[6] when the Commission authorized PG&E's MRTUMA, through December 31, 2009?

5. Should the Commission approve PG&E's request to recover $18.3 million in 2012 rates, reflecting:
   a) The 2009 and 2010 revenue requirements associated with PG&E's actual capital expenditures to implement the initial MRTU market launch on March 31, 2009 (Release 1);
   b) The 2009, 2010, and 2011 revenue requirements associated with PG&E's actual capital expenditures related to the Pre-Summer Release of the MAP phase of MRTU (operative August 2009); and
   c) The 2008 and 2009 revenue requirements associated with PG&E's actual incremental expenses incurred for MRTU from Jun 7, 2007, when the Commission authorized PG&E's MRTUMA, through December 31, 2009?
6. Should the Commission approve PG&E's rate proposals associated with its proposed MRTU-related revenue requirement, to be effective in rates on January 1, 2012?
7. Should the Commission defer all MRTU issues to an MRTU investigation which includes PG&E, SCE, and SDG&E?

6. Discussion

6.1. ERRA Compliance Issues

PG&E's showing demonstrates that during the 2009 record period, PG&E made appropriate entries to its ERRA and complied with regulatory standards in the areas of fuel procurement for utility retained generation, administration of power purchase contracts, and least cost dispatch of electric generation

[6] July 30, 2008 for incremental MRTU expenses related to demand response.

resources. DRA proposed no disallowances. We approve PG&E's ERRA compliance proposals.

6.1.1. PG&E's Fuel Expenses for Utility Retained Generation

PG&E has shown its utility retained generation (URG) fuel expenses to have been in compliance with its approved procurement plan during the record period and that its administration and management of its URG was prudent and did not cause extraordinary fuel expense.

PG&E made an extensive showing on its URG fuel costs and also presented URG operational statistics and reports, including information about its outages, through Master Data Request (MDR) responses, which are part of PG&E's initial showing.[7] PG&E provided testimony related to generation fuel costs, supporting data, and tables, which describes in detail the actions taken by PG&E regarding generation fuel procurement for PG&E-owned gas-fired generation, California Department of Water Resources (CDWR) contracts, tolling agreements, and PG&E's Diablo Canyon power plant. The information is persuasive.

[7] Ex. PG&E-3, Ch. 1, at 1-4, fn. 8. PG&E and DRA reached a mutual agreement in A.03-08-004, PG&E's 2003 ERRA compliance review proceeding, to work together to provide the additional information DRA requests through an MDR. The MDR process has been used ever since with DRA providing PG&E its MDR questions 60 days before PG&E's filing deadline each year.

6.1.2. PG&E's Contract Administration Complied with Standard of Conduct 4

PG&E provided a detailed showing that it administered its QF and other must-take power purchase agreements, and its non-QF contracts in accordance with contract provisions. DRA has no objection to our finding that PG&E has complied with Standard of Conduct 4.[8] PG&E has administered its QF and non-QF contracts in accordance with the contract provisions and in compliance with Commission guidelines relating to those contracts.

6.1.2.1. PG&E's Agreement to Provide Additional Information on Compliance with the Commission's Gas Hedging Plan in CDWR Contract Gas Procurement

DRA found PG&E's showing on hedging to be unclear, and recommends that PG&E include an explanation of its internal controls for ensuring compliance with its Commission-approved Gas Hedging Plan in an ERRA application that includes gas procurement for CDWR contracts. PG&E does not object to DRA's recommendation, although PG&E noted that internal controls and procedures are commercially sensitive and thus, qualify for protection under Pub. Util. Code § 583.

PG&E agrees that future ERRA compliance applications should include discussions with DRA of its internal procedures and controls for ensuring compliance with Commission-approved hedging plans. In those discussions, PG&E will provide DRA with written information including detailed

[8] Standard of Conduct 4 provides that "The utilities shall prudently administer all contracts and generation resources and dispatch the energy in a least-cost manner. Our definitions of prudent contract administration and least cost dispatch are the same as our existing standard."

descriptions of its internal controls and procedures, under Pub. Util. Code § 583 confidentiality protection.

6.1.2.2. PG&E's Agreement with DRA on Future Provision of Additional Information on PG&E's Internal Audit Plan

The non-QF contract administration chapter of DRA's report recommends that the Commission establish an ongoing process of ratepayer input into the development of PG&E's annual internal audit plan, begun with sufficient timeliness in each ERRA cycle to assure public confidence. PG&E and DRA reached a stipulation to resolve these issues (Exhibit PG&E-7). PG&E and DRA request that we adopt the following language as part of our final decision:

> In support of DRA's efforts to learn about and understand PG&E's Internal Audit (IA) plan, and to allow DRA an opportunity to provide suggestions on the IA plan, PG&E's Internal Auditing Department will provide DRA its draft audit plan in or about November, and meet at a mutually agreeable time to review the draft IA plan as it relates to the ERRA subject matter. After reviewing PG&E's IA plan, DRA may provide suggestions regarding that plan as it relates to the ERRA subject matter. At any time during the year, DRA may provide such comments and suggestions on the IA plan as it relates to the ERRA subject matter because the plan is a living document and can be amended during the audit year. However, as DRA has stated in its testimony, DRA may "not exert any management control of PG&E's internal auditing program." (Exhibit PG&E-7.)

6.1.2.3. PG&E's Least Cost Dispatch Activities in Electric Procurement During 2009

PG&E described the least cost dispatch practices employed by PG&E to meet its customers' electric requirements in a cost effective and reliable manner during 2009. PG&E complied with Commission Standard of Conduct 4, which mandates that PG&E dispatch its portfolio of existing resources, allocated CDWR contracts, and purchases to meet its 2009 electric load obligations in a least cost manner. DRA's Master Data Request included numerous questions on least cost dispatch after which DRA propounded additional discovery requests. DRA did not recommend any disallowance.

6.1.2.4. PG&E's ERRA and RPSCMA Balancing Account Entries During 2009

PG&E presented the accounting entries made to its ERRA balancing account during year 2009, showing a $71.8 million ERRA undercollected balance as of December 31, 2009. DRA's review took the form of an audit, performed by a financial examiner who is a certified internal auditor. DRA's report concluded that no adjustments to PG&E's ERRA balancing account were required.

The RPSCMA was established to track third party consultant costs incurred by the Commission and paid by PG&E in connection with the Commission's implementation and administration of the Renewables Portfolio Standard, as authorized in D.06-10-050. Specifically, PG&E requested approval to transfer the end-of-year 2009 balance of $385,772 from RPSCMA to the ERRA for recovery. DRA does not object.

7. Background on MRTU and Its Implementation Timeline

PG&E's MRTU implementation activities were driven by CAISO's Federal Energy Regulatory Commission (FERC)-mandated implementation of MRTU. Therefore, an overview of MRTU and its implementation timeline provides a

necessary backdrop for evaluating the reasonableness of PG&E's implementation expenditures.

Following the California energy crisis, FERC ordered a comprehensive redesign of the California electricity market structure.[9] In response to FERC's order, CAISO developed the MRTU initiative. On September 21, 2006, FERC approved the implementation of the MRTU initiative.[10] This mandated that all participants in the CAISO markets, including PG&E, make the necessary changes required to participate in the newly redesigned markets.

MRTU fundamentally changed the manner in which energy is procured and sold by energy market participants. The new market design changes necessitated major changes to CAISO's underlying technology systems. These changes, as well as the market design changes themselves, required significant changes in PG&E's systems as well as modifications to PG&E's business processes to support the requirements set by CAISO.

The initial implementation of MRTU occurred on April 1, 2009, and was the beginning of a part of a multi-year process that CAISO has undertaken to implement additional market design features as part of the FERC-mandated MRTU initiative.

7.1. Basic Structure of MRTU

The processes required to support MRTU are dramatically more complex than the previous processes that CAISO used to balance electric demand and generation on the transmission grid under its control. Implementation of MRTU

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[9] *See, e.g., San Diego Gas & Electric Co. v. Sellers of Energy and Ancillary Services, et al.* (2001) 97 FERC ¶ 61,275 at 62,245.

[10] *In re California Independent System Operator Corp.* (2006) 116 FERC ¶ 61,274.

required PG&E to significantly modify the systems and business processes it uses to procure, schedule, and deliver electricity to its customers. Significant changes in the CAISO process compared to those used prior to MRTU include:

- The move from three zonal areas (zones) to approximately 3,000 nodal price points (nodes), including the move from pricing for the three zones to pricing for each of the nodal price points.
- The re-introduction of a centralized day-ahead energy market, which has been non-existent since the California Power Exchange filed for bankruptcy in January 2001.
- Co-optimization of three markets simultaneously – energy, ancillary services (operating reserves), and grid congestion – which prior to April 1, 2009 were managed separately by CAISO.
- Introduction of a Residual Unit Commitment (RUC) market to commit additional generation resources in the day-ahead market if insufficient resources had been committed by the day-ahead market to meet CAISO's forecast of the next day's demand.
- The introduction of an entirely new financial mechanism, called Congestion Revenue Rights (CRR), designed to enable market participants to better manage their congestion costs.

The primary changes that most affect PG&E's operations include Locational Marginal Pricing (LMP), the Full Network Model (FNM), the Integrated Forward Market (IFM), the RUC Market, Hour-Ahead Scheduling Process (HASP), the Real-Time Market (RTM), and CRR. Each of these changes has a significant impact on how PG&E manages its scheduling, procurement, and settlement of energy transactions.

7.2. MRTU's Implementation Timeline

MRTU's redesign of the California energy market entailed a significant increase in complexity to PG&E's energy procurement operations. The changes

required the development of entirely new business processes and policies, significant Information Technology (IT) software and hardware changes, and the creation of new risk management models – all while maintaining the existing energy market model on a parallel basis. Many of these components involved changes for which details were not fully understood at the outset of the project in 2006. This drove the CAISO to propose a series of evolutionary changes to the MRTU structure that PG&E was required to implement.

On September 21, 2006, FERC approved CAISO's MRTU proposal. Subsequent to September 21, 2006, FERC issued over 50 orders addressing various aspects of MRTU design. In fact, FERC issued nearly 20 orders between the beginning of 2009 and the MRTU go-live date of March 31, 2009.

Given the number of follow-up and clarification orders issued by FERC relating to MRTU, the MRTU implementation timeline included a significant number of rescheduled Release 1 (initial) go-live deadlines. CAISO's original go-live date for Release 1 of MRTU was November 2007. After establishment of the initial go-live date, CAISO changed the go-live date six times.

The overall impact of CAISO resetting this deadline was a 17-month increase in the duration of the project, which increased the cost of the project. As it worked to implement MRTU, CAISO issued Business Practice Manuals (BPM) addressing key areas of MRTU. The BPMs reflected the business policies and procedures that market participants would be required to adhere to in order to participate in the newly redesigned markets. These procedures provided the basis for the business requirements that drove new PG&E business functions and technology changes to support those requirements. Over the course of the implementation, both the BPMs' content and release deadlines changed on a frequent basis. For example, certain BPMs were modified up to 11 times.

7.3 Timing of MRTU Releases

As originally envisioned by CAISO, MRTU would be fully implemented in three releases. Release 1 was to be the initial implementation. Release 1A, which was to include convergence bidding, was to be implemented within 12 months of Release 1. Release 2, including any remaining features of MRTU, was to be implemented within three years of Release 1. The initial implementation of MRTU, Release 1, was March 31, 2009, for trade day April 1, 2009. However, CAISO has substantially modified its vision for subsequent releases. CAISO now envisions a much more complex set of "Market and Performance" (MAP) phases of releases, occurring several times per year over the next several years. Each MRTU MAP phase release includes a number of initiatives with a specific scope of effort.

7.3.1. MRTU Releases Operative by the End of 2009

The initial implementation of MRTU, Release 1, went live on March 31, 2009, for trade day April 1, 2009. The only release from the MAP phase that became operational in 2009 is the Pre-Summer Release. On the CAISO side, the 2009 Pre-Summer release included certain patches or fixes to resolve variances or to implement system improvements, and changes to improve the flexibility of the Automatic Dispatch System (ADS) including a new client (front end). There were also certain changes to the MRTU participant portal and modifications to Open Access Same-Time Information System (OASIS) to streamline processing and enhance reporting. PG&E is not seeking recovery of costs incurred in connection with the subsequent releases of MRTU in this proceeding.

8. The MRTU Memorandum Account (MRTUMA)

The revenue requirements that PG&E proposes to recover as a part of this proceeding flow through the MRTUMA, approved in Resolution E-4093.

Among its many findings within Resolution E-4093, we stated:[11]

- Market participants, including PG&E, are required to comply with the FERC-approved MRTU tariff as part of the FERC regulations and agreements with CAISO.
- CAISO has targeted MRTU Release 1 to be implemented by February 2008, and MRTU Release 2 in 2009 to address subsequent directives provided by FERC in adopting MRTU.
- The Commission supports CAISO's MRTU initiative.
- The Commission expects the investor-owned utilities (IOUs) to be fully prepared for MRTU and to have the resources necessary to be able to participate in the new market design, LMP, and a day-ahead market.
- Currently, there is a large uncertainty about the MRTU-related costs that the IOUs will incur.
- This Resolution does not prejudge or determine what costs the Commission will allow PG&E to recover in rates associated with complying and participating in CAISO's MRTU initiative.
- Cost recovery associated with the amounts recorded in PG&E's MRTU MA is subject to a future Commission order in PG&E's ERRA reasonableness proceedings or some other formal proceeding where reasonableness of amounts recorded in this account are reviewed.
- PG&E's proposal to establish an MRTUMA is justified in order to meet the objectives of CAISO's MRTU initiative.

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[11] See Resolution E-4093, at 11-13.

Resolution E-4093 further provided that "PG&E should reduce its actual recorded MRTU expenditures by any previous Commission-authorized MRTU expenditures reflected in PG&E's rate levels to ensure that PG&E does not double-recover its MRTU expenditures."

9. The Review of PG&E's MRTU Implementation Costs Should Not Be Deferred

DRA proposes that we should defer review of PG&E's MRTU implementation costs. PG&E argues to the contrary. PG&E says nothing is served by deferral of the review; the projects for which PG&E seeks review are complete and no new information about these projects will become available in the future. Nor is deferral justified, according to PG&E, by any need for the Commission to adopt standards for review. In PG&E's opinion, the Commission has already adopted the standards to be applied to the review of these costs. Because the project is mandated by CAISO and FERC, PG&E believes the review should focus primarily on whether the costs can be verified and are incremental, and there is no basis for deferring review to a yet-to-be-instituted joint utility proceeding.

9.1. The Projects for Which PG&E is Seeking Review are Complete

DRA recommends that review of MRTU reasonableness costs should be deferred until after full implementation because CAISO has continued to add additional functionality to its markets after the initial implementation of MRTU. PG&E counters that while future projects to implement additional MRTU functionality should be reviewed later, the projects for which PG&E is seeking review have been completed, and so should be reviewed now. We agree with PG&E. PG&E's capital expenditures for the initial implementation of MRTU (Release 1), capital expenditures for the 2009 Pre-Summer Release of MRTU, and

Operation and Maintenance (O&M) expenses recorded in the MRTUMA through December 31, 2009, all reflect costs associated with phases of MRTU that are complete and in operation. No new information about the reasonableness of PG&E's actions in implementing these projects will become available later. From an accounting perspective, the books are closed on both of these projects, and their costs are known. From an operational perspective, these projects have gone into service. From a regulatory perspective, these projects are being utilized. Further delay in review and recovery of costs further separates the recovery of costs from the customers benefiting from MRTU. Therefore, from a regulatory perspective, review is appropriate now.

9.2. No Further Proceeding to Develop Review Standards is Necessary

We discussed recovery of MRTU expenditures in PG&E's 2010 ERRA forecast proceeding, stating "[t]he MRTU project is a project mandated by regulatory and reliability requirements of the California Independent System Operator and Federal Energy Regulatory Commission. Therefore, the Commission expects the review of these costs to primarily focus on whether the costs can be verified and are incremental."[12] PG&E's records show that the costs recorded to PG&E's MRTU capital projects (or as MRTU-related expenses) were spent for MRTU activities and are properly accounted for, and that these costs are incremental to costs recovered through other proceedings. PG&E has provided an analysis of related cost recovery proceedings to show that there is no cost recovery overlap.

[12] D.09-12-021, at 3, fn. 1.

DRA argues that the Commission should order the development of standards for the qualification of MRTU implementation costs. DRA also states that accounting standards alone are not sufficient to determine the reasonableness of MRTU for California ratepayers. PG&E disputes DRA's assertions.

We agree with PG&E for two basic reasons. First, this proceeding is not to review the reasonableness of MRTU. MRTU was ordered by FERC; CAISO had no choice but to comply. In Resolution E-4093, the Commission stated that it "expects the investor-owned utilities (IOUs) to be fully prepared for MRTU and to have the resources necessary to be able to participate in the new market design, [Locational Marginal Pricing], and a day-ahead energy market."[13] In order to be in compliance with Commission directives, PG&E must meet its utility obligations within the MRTU framework. Second, to the extent DRA is suggesting that accounting standards alone are not sufficient to determine the reasonableness of PG&E's MRTU implementation expenditures, PG&E has not relied on accounting standards alone to make its reasonableness case. PG&E has presented evidence in addition to accounting standards, to support the reasonableness of its MRTU implementation activities.

9.3. Review of PG&E's MRTU Implementation Costs Should not be Deferred to a Three-Utility Consolidated Proceeding

DRA recommends deferring cost review until the Commission establishes a consolidated proceeding to address MRTU cost recovery for the three IOUs. PG&E says this recommendation for delay should be rejected. We

[13] Resolution E-4093, at 5.

note PG&E sought review of its MRTU implementation costs in its 2010 ERRA forecast proceeding, and the Commission declined to review the MRTU expenditures in that proceeding, stating "this decision . . . defers the issue to PG&E's ERRA Compliance filing (or separate application)."[14] PG&E has complied with the Commission's directive in this proceeding.

Furthermore, there are also real costs associated with DRA's proposal. Adoption of DRA's proposal would defer review of PG&E's implementation activities for an undetermined amount of time, which could be a year or more. MRTU went into effect over two years ago, on April 1, 2009; DRA's proposal would require another Commission proceeding, with associated administrative overhead. Use of the existing ERRA compliance proceedings reduces that administrative overhead.

10. The Costs to be Recovered Via the MRTU Memorandum Account are Incremental

PG&E considered incremental costs to be those labor, equipment, material, and contract costs associated with MRTU implementation that have not been approved by the Commission in any prior proceeding. PG&E identified two proceedings in which recovery of MRTU-related costs might have been previously authorized: the 2009-2011 Demand Response program (A.08-06-003), and the 2007 GRC Phase I (A.05-12-002). PG&E showed that there was no overlap in the costs requested for recovery in this proceeding and costs recovered in those proceedings.

[14] D.09-12-021, at 3, fn. 1.

10.1. PG&E Established Specific Orders to Track MRTU Implementation Costs

To ensure that it is not seeking recovery of costs already approved in other proceedings, PG&E established specific orders to track incremental capital costs and expenses associated with the MRTU project. PG&E instructed all relevant business areas to record only those costs that are related to MRTU and incremental to work authorized in PG&E's 2007 GRC (D.07-03-044), and work authorized in PG&E's Bridge Funding for 2009 Demand Response Programs (D.08-12-038) and PG&E's 2009-2011 Demand Response Programs (D.09-08-027). To determine which MRTU-related activities and costs would fall under the definition of MRTU expenses, PG&E followed a systematic process. Meetings were held with each business area impacted by MRTU, and the types of MRTU-related costs (PG&E labor, non-labor, and contract labor) were discussed.

10.2. There is no Overlap Between MRTUMA Cost Recovery and Cost Recovery in Demand Response Proceedings

Focusing first on demand response costs related to MRTU, D.08-12-038 adopted bridge funding for the 2009 demand response program year that allowed PG&E to continue certain 2008 demand response programs and implement certain pilots until final programs for 2009-2011 were adopted. D.09-08-027 approved the demand response program application for the 2009-2011 program years. Other than those demand response programs and pilots, D.09-08-027 did not authorize the recovery of costs associated with any MRTU-related demand response programs. Therefore, PG&E has excluded all costs associated with 2009-2011 demand response programs from the MRTUMA. PG&E has established specific orders to track incremental demand response

MRTU costs and has included those costs in the demand response sub-account of the MRTUMA.

10.3. There is no Overlap Between MRTUMA Cost Recovery, and Cost Recovery in PG&E's General Rate Case

Turning to non-demand response costs related to MRTU, the only proceeding in which such costs were authorized for recovery is PG&E's 2007 GRC. No Information Systems Technology Services (ISTS) capital projects relating to MRTU were included in the 2007 GRC. Therefore, PG&E determined that the revenue requirements associated with all of the incremental MRTU capital projects described in its testimony are appropriately reflected in the MRTUMA. PG&E established specific orders to track the project capital expenditures and project expenses associated with each release of the MRTU initiative.

PG&E requested some expense increases associated with the MRTU initiative in its 2007 GRC. Therefore, PG&E further reduced the total expenses associated with MRTU implementation activity by subtracting $1.0 million per year from the expenses recorded in the MRTU orders, to take out the MRTU expense dollars that were authorized for recovery in the 2007 GRC.

Resolution E-4093, which authorized the MRTUMA, recognized this needed reduction. In the findings of fact, the resolution states, "in its 2007 GRC, PG&E included a forecast of approximately $1.8 million in expenses associated with an additional six full time employees [FTE] and new hardware and software to support the CAISO's MRTU. Of this amount, PG&E believes $1.0 million was

approved by the Commission on March 17, 2007, in D.07-03-044, which adopted the 2007 GRC settlement."[15]

11. The Costs to be Recovered by the MRTU Memorandum Account are Verifiable

PG&E incurred and is requesting review of $50.56 million in capital expenditures for the initial implementation of MRTU, and $0.09 million in capital expenditures for the 2009 pre-summer release. PG&E incurred MRTU expenses of $11.96 million from June 7, 2007, when the MRTUMA was authorized, through the end of 2009. In managing the initial MRTU implementation capital project PG&E points out it had to deal not only with the complexity of the project, but also with its continually evolving nature. CAISO modified the project timelines and project scope many times from when FERC issued its September 21, 2006, order approving MRTU until MRTU was finally implemented on April 1, 2009.

11.1. Overview of PG&E Departments Incurring MRTU Implementation Costs

Several PG&E departments have been involved in implementing MRTU. The departments discussed below incurred incremental MRTU capital expenditures and/or expenses through the end of 2009. DRA did not take issue with any of the expenditures.

11.1.1. Project Management Office

The Project Management Office (PMO) is responsible for the overall program management of MRTU implementation. The PMO's responsibility includes coordinating and providing oversight to the overall program, including tracking progress, identifying and mitigating ongoing risk issues, resource management, and budgeting cost control.

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[15] Resolution E-4093, at 12.

11.1.2. Energy Policy Planning and Analysis

The Energy Policy Planning and Analysis group is responsible for the policy formation related to market design, market monitoring, and avoided costs. The function of this group is to oversee and provide policy insight into the changes in market designs mandated by FERC. This group is responsible for the policy formation and calculation of avoided energy and capacity costs.

11.1.3. Front Office

The Front Office is responsible for meeting PG&E's electric load obligations in a least cost manner. With the introduction of the LMPs, the IFM, RUC, the HASP/RTM, and CRRs, the Front Office had to change the manner in which it forecasts PG&E's supply and demand; it also performs resource optimization, and trades electricity.

11.1.4. Middle Office

The Middle Office is responsible for carrying out PG&E's risk management control objectives, which are designed to mitigate aberrant trader activities, minimize business operational risks, enable portfolio managers and traders to comply with risk management policies and procedures, facilitate setting of control and limits, and provide decision makers with reports to manage the portfolio market and credit risks. Risk and portfolio management systems and processes were significantly redesigned to support the expanded number of positions at potentially thousands of LMPs, and to model CRR risks at these LMPs.

11.1.5. Back Office

The Back Office is responsible for the maintenance of electric contracts for generation that serves PG&E's service area, invoicing and settlements, disputes, and charge code reconciliation with CAISO.

11.1.6. Information Systems Technology Services

The ISTS organization is responsible for supporting the MRTU business changes that are driven by the Front, Middle, and Back Office functions, as well as demand response activities.

11.1.7. Demand Response

The Demand Response Department is responsible for managing most aspects of PG&E's retail demand response programs, including program design and development, customer marketing and enrollment, customer notifications for events, and post-event evaluations.

11.1.8. Other Areas of PG&E's Business are also Affected by MRTU

Other areas of PG&E's business are also affected by MRTU. For example, MRTU requires PG&E's transmission operation departments to modify the manner and timing in which they provide transmission information to CAISO to ensure CAISO's FNM accurately depicts PG&E's system.

12. PG&E's MRTU Capital Expenditures

PG&E is seeking reasonableness review of two capital projects: the initial implementation of MRTU (Release 1); and the 2009 pre-summer release. Both are IT projects carried out by PG&E's ISTS Department. The initial implementation of MRTU required modification to a wide range of PG&E systems used by PG&E's Front, Middle, and Back Office. The systems to be modified involved everything from "bid to bill." That is, they included everything from the systems PG&E's Front Office used to bid load and supply into the CAISO market, as well as the systems the Middle Office used to carry out its risk management control objectives, to the systems the Back Office used to settle with the CAISO and others. As discussed above, the timeline of the MRTU project was continually

evolving, and business specifications were continually changing literally up until April 1, 2009, when MRTU was implemented. ISTS had to manage those changes.

12.1. Overview of the IT Process for Developing Capital Projects

PG&E employed a methodology, called the PG&E Delivery Method (PDM), to ensure proper quality of deliverables and to ensure that systems efficiently met the defined requirements. MRTU program management employed controls to ensure that forecasts were properly established and maintained; actual costs were accounted for in an accurate and timely fashion; all cost or schedule variances were explained; and any necessary corrections were made. PG&E used PDM to manage both the initial implementation of MRTU (Release 1) and the 2009 pre-summer release.

12.2. Initial MRTU Implementation Capital Expenditures are Verifiable

The majority of the ISTS capital expenditures incurred for the MRTU program were labor costs to plan, develop, test, and implement MRTU software and related processes. The remainder of the capital expenditures was for newly purchased software and computer hardware, including servers, networking devices, and system operating software.

12.2.1. The Complexity of the Initial MRTU Implementation

MRTU required modification of PG&E's business and systems processes to support the requirements established by CAISO, affecting Front, Middle, and Back Office activities. For the first several of the IT-related projects (i.e., software development-related activities), the primary units of effort are RICEFs (Reports, Interfaces, Components, Extensions, and Forms). IT departments commonly use RICEFs as a mechanism to organize and track defined units of work associated

with software development. Likewise, PG&E defines plans, forecasts, scheduled tasks, and status reports for these software development-related work streams in terms of RICEFs.

The Front Office projects that required ISTS support were:

- Forecasts, Bidding, and Scheduling System;
- CAISO MRTU Scheduling System (CAMSS), also known as GenManager; and
- Resource Optimizer.

This work stream involved 93 RICEFs, 57 of which were identified as high priority for initial implementation and the remaining 36 considered secondary regarding the timing of completion.

Middle Office projects that required ISTS support were:

- LMP Forward Price, Volatility and Correlation Modeling Tool;
- Deal Capture Systems;
- Power Plant Model;
- Open Position Model;
- To-expiration Value-at Risk Model; and
- Portfolio Reporting Application.

Each of the 77 RICEFs in this work stream resulted in multiple technical design documents and intensive development efforts.

Back Office projects that required ISTS support were:

- Market Settlement System for CAISO Settlements; and
- Qualified Facilities Information Center (QFIC) Settlement System for Electric Settlements.

Any changes CAISO made required PG&E and vendors to make changes to the appropriate systems and to perform additional testing, which caused schedule delays and increased costs.

In addition to the work just described, there were four major functions required to implement the MRTU program. These functions included the Middleware Team, whose deliverables involved the management of data transferred between or among applications or entities (e.g., between CAISO and PG&E). This work stream implemented the majority of the interfaces needed for MRTU. This work stream involved 24 RICEFs.

12.2.2. ISTS and the MRTU Program

The PDM is the standard approach to system development at PG&E and was the methodology employed during the MRTU initiative. Not only were project plans developed by each PDM phase, but actual labor costs and effort were also tracked using these same phases. Table 1 below presents, by PDM phase, the total spent (in dollars) and effort (in hours), along with associated support categories. The figures in the table illustrate the complexity and significant effort associated with PG&E's MRTU implementation.

Table 1
Pacific Gas and Electric Company
MRTU Phase 1 Initiative
ISTS Labor by Project Phase – Recorded Figures
(000s of Nominal Dollars)

Line No.	A Phase	B Total Actual Spend 2006-2009	C % of Total Actual Spend 2006-2009	D Total Actual Hours 2006-2009	E % of Total Actual Hours 2006-2009
1	Plan	$379	1.0%	2,293	0.8%
2	Analyze	930	2.5	8,824	3.2
3	Design	4,672	12.3	41,661	15.1
4	Build	5,851	15.4	41,355	15.0
5	Test	10,002	26.4	74,881	27.2
6	Deploy	2,510	6.6	14,074	5.1
7	Stabilize	1,120	2.9	8,776	3.2
8	Project Management Office (PMO)	5,802	15.3	36,800	13.4
9	Technical Architecture	6,678	17.6	46,977	17.0
10	Total	$37,944	100.0%	275,641	100.0%

MRTU project labor was incremental to PG&E's existing work. PG&E did not have an adequate supply of IT employees with the appropriate skill sets to complete the MRTU project as well as other necessary IT projects. Therefore, it was necessary to retain outside contractors to provide the bulk of the staff for the project.

12.2.3. Purchased Software Costs

Approximately $0.8 million of the total IT capital costs was purchased software needed to meet the MRTU objective set forth by CAISO. PG&E's Front Office was required to purchase CAMSS (GenManager) software to communicate with and receive data from CAISO's new MRTU systems. It was also required to purchase Resource Optimizer software to determine the optimal manner in which to schedule/bid the MRTU markets. PG&E's Middle Office

was required to purchase PowerGen Federal Executive Agencies (FEA) software to provide portfolio management functionality and open position calculations. Finally, PG&E's Back Office was required to purchase a new version of Market software to pull in data for approximately 3,000 nodes that replaced the three primary electric power delivery zones used prior to MRTU.

12.2.4. Hardware Costs

Approximately $2.5 million of the total IT capital costs were for purchased hardware infrastructure needed to support the new software applications, such as servers, network cards and cables, laptop computers, desktop computers, and computer monitors.

12.2.5. Energy Procurement Consulting

Approximately $4.1 million of the total IT capital costs relate to consultant costs to support the MRTU implementation effort. These consultants worked closely with the PMO, Front Office, and Back Office personnel in connection with their respective components of the ISTS MRTU program.

12.2.6. Overheads

Approximately $5.1 million of the total IT capital costs relate to overheads, such as material burden, capitalized Administrative and General (A&G), and Allowance for Funds Used During Construction (AFUDC).

12.3. 2009 Pre-Summer Release Expenditures

Following implementation of the first phase of MRTU, PG&E joined CAISO and other market participants in the next MRTU-related major effort. This phase, commencing in mid-2009, is called the MAP phase. It has been organized around several releases, each with a number of initiatives with a specific scope of effort, and with specific planned go-live dates.

The only release of the MAP phase that became operational in 2009 is the pre-summer release. Its scale was orders of magnitude smaller than Release 1. On the CAISO side, the pre-summer release included fixes to resolve variances or to implement system improvements, and changes to improve the flexibility of ADS (Automatic Dispatch System) including a new client (front end). As with the work for MRTU Release 1, the MRTU MAP pre-summer release followed the PDM. The total spent (in dollars) and effort (in hours), along with the associated support categories, during the pre-summer release of the MRTU MAP phase was $80,000.

12.4. PG&E's Revenue Requirement Determination

12.4.1. PG&E's Revenue Requirement Request for 2012 Rates is $18.3 Million

PG&E determined its incremental MRTU implementation annual revenue requirements for this project based on the incremental MRTU expenditures PG&E made. Based on when the expenses were incurred, and when the capital expenditures were put into rate base, PG&E derived associated revenue requirements for the years 2008, 2009, 2010, and 2011. However, MRTU implementation cost recovery through rates will not begin until 2012; therefore, the amount PG&E is requesting to recover in 2012 rates, $18.3 million, is the sum of the following:

- Release 1 Capital Project: 2009 and 2010 annual revenue requirements of ($8.1) million, and $17.3 million, respectively.
- 2009 pre-summer release Capital Project; 2010, and 2011 annual revenue requirements of ($0.1) million, $0.1 million, and $0.1 million, respectively.

- Non-Demand Response Expenses: 2008 and 2009 annual revenue requirements of $2.4 million and $6.4 million, respectively.
- Demand Response Expenses; 2008 and 2009 annual revenue requirements of $0.1 million and $0.1 million, respectively.

12.4.2. PG&E Used its Results of Operation Model to Derive its Requested Revenue Requirements

PG&E used its Results of Operation model to carry out its revenue requirement calculation. This calculation takes into account whether expenditures are capital or expense-related. Among other things it takes into account depreciation schedules, rate of return, income, and tax depreciation assumptions. DRA raised two issues with PG&E's revenue requirements calculation. As discussed below, DRA's concern is misplaced. PG&E's revenue requirements calculations should be adopted.

12.4.3. DRA's Proposed Revenue Requirement

On page 4 of DRA's Supplemental Opening Brief, DRA states:

> The record indicates that PG&E recorded an incremental revenue requirement of approximately $932,000 for the discrete Record Years 2008 and 2009. PG&E's request for a revenue requirement of $18.3 million includes its estimate of the revenue requirement equivalent of MRTU implementation costs for 2010 and 2011, costs which cannot have been booked for purposes of memorandum account verification and reasonableness review in this proceeding.

As shown in Table 2-4, there is no difference between DRA's and PG&E's estimate of the revenue requirement needed to recover PG&E's MRTU capital costs and operating expenses for 2008, 2009, 2010, and 2011. The revenue requirement for 2008 and 2009 is $932,000 ($2.484 million - $1.552 million =

$932,000) and for 2010 and 2011 is $17.4 million ($17.343 + 0.026 - $17.369 million).

12.4.4. Discussion

The $18.3 million requested by PG&E is for revenue requirements associated with the MRTU implementation expenditures PG&E has presented for review in this proceeding: 1) the two MRTU implementation capital projects completed and put into rate base before the end of 2009 (MRTU initial release and 2009 MRTU pre-summer release); and 2) the incremental MRTU implementation expenses incurred prior to the end of 2009. Thus, all of PG&E's cost recovery request is associated with already incurred expenditures; none of it is for "projected expenses."

PG&E's cost recovery proposal is to bring PG&E current on the recovery of the annual revenue requirements associated with the MRTU implementation expenditures being reviewed in this proceeding. PG&E's $18.3 million cost recovery request includes the 2008 and 2009, and the 2009, 2010, and 2011 annual revenue requirements associated with the two MRTU implementation capital projects completed in 2009.

Review of PG&E's workpapers reveals that, in fact, DRA's figure of $932,000 represents the 2008 and 2009 revenue requirements associated with the MRTU expenditures that PG&E has presented for review here. In other words, DRA's cost recovery proposal would include recovery of only the 2008 and 2009 annual revenue requirements associated with the MRTU implementation expenditures being reviewed. DRA's proposal would exclude recovery of the 2010 and 2011 revenue requirements associated with the two MRTU implementation capital projects.

PG&E requests that it be brought current with respect to cost recovery of the revenue requirements associated with incremental MRTU expenditures covered in this application, namely, incremental MRTU expenditures PG&E had made prior to the end of 2009. The incremental expenditures include both expense items incurred prior to the end of 2009, and two MRTU capital projects that became operational prior to the end of 2009: Release 1, covering the initial release of MRTU; and the Pre-Summer 2009 Release, a follow-up project that went live later in 2009.

As shown in Table 2-4 of Exhibit 11, reproduced below, the revenue requirements that PG&E is requesting associated with those expenditures are approximately $18.3 million. For the incremental MRTU expenses, the annual revenue requirements are for 2008 and 2009. For the Release 1 capital project, the associated revenue requirements are for 2009 and 2010. For the Pre-summer 2009 Release capital project, the associated revenue requirements are for 2009, 2010, and 2011.

Table 2-4
PACIFIC GAS AND ELECTRIC COMPANY (PG&E)
MARKET REDESIGN AND TECHNOLOGY UPGRADE IMPLEMENTATION
COMPONENTS OF PG&E'S COST RECOVERY REQUEST
ANNUAL REVENUE REQUIREMENT REQUESTED BY PG&E
($ IN MILLIONS)

Line No.	MRTU Cost Category	2008	2009	2010	2011	PG&E's Cost Recovery Request
1	Release 1 Capital Project	-	(8.084)	17.310	-	9.226
2	Pre-Summer 2009 Release Capital Project	-	(0.026)	0.033	0.026	0.033
3	Non-Demand Respond Expense	2.429	6.424	-	-	8.853
4	Demand Response Expense	0.055	0.134	-	-	0.189

5	Total	2.484	(1.552)	17.343	0.026	18.301

DRA believes PG&E's recovery should be limited to $932,000. DRA argues that $932,000 is the approximate sum of the revenue requirement equivalent of PG&E's verified MRTU implementation costs for the Record Years 2008 and 2009. The dispute is whether PG&E should also be allowed to recover its estimate of the revenue requirement equivalent of MRTU implementation costs for 2010 and 2011 for an additional $17,368,000.

DRA asserts that PG&E's proposal for recovery of estimated revenue requirements for 2010 and 2011 should be rejected because, according to DRA, the proposal is inconsistent with the Commission's explicit directive regarding recovery of MRTU implementation costs. Resolution E-4093 defines the required treatment of PG&E's MRTU implementation costs within an ERRA reasonableness proceeding, as follows:

> The MRTU Memorandum Account (MRTUMA) will record PG&E's <u>incremental</u> capital-related revenue requirements as well as <u>incremental</u> operations and maintenance (O&M) expenses associated with implementing the CAISO's MRTU initiative. The CAISO has targeted MRTU Release 1 by February 2008 and MRTU Release 2 in 2009. PG&E shall seek recovery of amounts <u>recorded</u> in the MRTUMA in Energy Resource Recovery Account (ERRA) reasonableness proceedings. PG&E shall submit to the Energy Division 30 days prior to each MRTU release, its best estimate of the amounts it expects to record in the MRTUMA. (Emphasis added.)

DRA's witness said the $932,012 revenue requirement reflects PG&E's actual or booked capital and operating and maintenance expenses for MRTU implementation in 2008 and 2009. The $18.3 million PG&E is requesting consists of the equivalent revenue requirements for PG&E's capital and O&M expenses for MRTU implementation for years 2008, 2009, 2010, and 2011. PG&E has not

booked its 2010 and 2011 MRTU implementation costs yet PG&E nonetheless continues to seek recovery of these costs. DRA concludes that the PG&E request should be denied at this time, but that PG&E may seek recovery of its 2010 and 2011 MRTU implementation costs after these costs have been booked and verified in future ERRA filings.

Accordingly, DRA contends, review of MRTU costs is limited to incremental costs for the discrete years in which those costs were actually recorded. According to DRA, such review would be consistent with the established Commission practice regarding memorandum accounts in which only verifiable historical expenditures are evaluated for reasonableness, as opposed to unverifiable prospective expenditures.

PG&E took a broader view of the issue. As PG&E's witness explained, the operating expenses associated with a capital project that go into the annual revenue requirements continue for several years after the project goes into rate base. These operating expenses do not represent additional expenditures. They represent the net tax, franchise fees and uncollectibles (FF&U) expense, and depreciation associated with the capital project, all recovered over the life of the asset. PG&E's request is to bring cost recovery current, insofar as possible, once reasonableness review has occurred. DRA proposes to lag recovery of the 2010 revenue requirement associated with the MRTU Release 1 (initial implementation) capital project, and the 2010 and 2011 revenue requirements associated with the Pre-summer 2009 capital project, to a later time period, even though the reasonableness review of these capital projects will have been completed in this proceeding. Once the reasonableness review of these projects has been completed, according to PG&E, there is no reason to continue to lag cost recovery. (Ex. 1, 1-2.)

In this ERRA proceeding (A.10-02-012), PG&E requested cost recovery of revenue requirement through 2011 because at the time the proceeding was filed in February of 2010, PG&E anticipated a 2010 end-of-year decision that would enable the revenue requirement request to be reflected in January 1, 2011 rates. Approval of PG&E's request at the end of 2010 would have allowed PG&E to be brought current, during 2011, with respect to the incremental MRTU expenditures being reviewed for reasonableness in this proceeding.[16]

This approach, PG&E believes, is consistent with how the Commission treats another memorandum account for cost recovery purposes, the CEMA. For example, in D.09-10-046, the Commission reviewed certain CEMA expenditures, and authorized the recovery in 2010 rates, not only of the 2008 revenue requirement associated with these expenditures, but also of the 2009 and 2010 revenue requirements. In other words, D.09-10-046 authorized PG&E to be brought current with respect to cost recovery once reasonableness review of the CEMA expenditures had occurred. This is exactly analogous to what PG&E proposes here.

PG&E also refers to another CEMA decision, D.08-11-045, covering requested cost recovery for both capital costs and expenses. In that proceeding, the Commission reviewed CEMA expenditures associated with January 2008 storms. The Commission approved a settlement that provided for PG&E to recover $12.6 million in 2009 rates and $2.3 million in 2010 rates. Just as in D.09-10-046, in D.08-11-045 all expenditures being reviewed had already been

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[16] PG&E reflected the 2011 revenue requirement associated with Release 1 in PG&E's 2011 GRC request, and so did not include that amount in its request in this proceeding. (Ex. 11, at 1-6 through 1-7.)

incurred at the time of review, but the associated revenue requirements stretched out into the future, and the authorized recovery allowed PG&E to be brought current.

PG&E submits this is exactly the cost recovery treatment PG&E is requesting here. PG&E states it should be authorized to be brought current with respect to the cost recovery of the revenue requirements associated with the incremental MRTU implementation expenditures being reviewed in this proceeding, just as PG&E was authorized to be brought current with respect to the cost recovery of the CEMA expenditures that were reviewed in D.09-10-046 and D.08-11-045.

DRA states, consistent with its view of the directive of Resolution E-4093, it did not conduct a reasonableness verification of forecasted expenditures for 2010 and 2011. Similarly, regardless of the scope of the Commission's reasonableness review regarding costs in an unrelated proceeding pursuant to different Commission resolution, the Commission's analysis and authorized recovery in this proceeding must be guided by the specific language of Resolution E-4093. Accordingly, the Commission should only review the reasonableness of and allow recovery for the revenue requirement equivalent for PG&E's MRTU expenditures actually incurred and recorded in Record Years 2008 and 2009.

Under the facts of this proceeding, we find PG&E's position reasonable. We will authorize recovery of the MRTU revenue requirement in the amount of $18.3 million, as shown in Table 2-4 subject to an audit as detailed below. All the capital projects giving rise to the $18.3 million became operational in 2009 and were recorded in PG&E's books in 2009. The $18.3 million (less $932,000) is for capital related revenue requirements for 2010 and beyond. Those revenue requirements consist of taxes, FF&U, and depreciation, all associated with

verified capital projects. Our authorization will permit PG&E to bring current cost recovery of these capital projects, to the extent possible.

The audit of PG&E's $18.3 million MRTU costs must be completed within 12 months from the effective date of this decision. This audit will be paid for by PG&E, and performed by an independent auditor chosen by the Commission's Division of Water and Audits – Utility Audit, Finance, and Compliance Branch (DWA). The resulting audit report must be filed by DWA as a compliance filing in PG&E's 2010 ERRA proceeding (or a consolidated proceeding addressing MRTU costs) and served on the service list of that proceeding. Within 30 days of the audit being filed, PG&E must file and serve a response to the audit. DRA and any interested party may then file and serve a reply to such response within 20 days of PG&E's response.

The Audit must include but not be limited to the following items:

1. Compliance with requirements of the Resolution in which the MRTUMA was authorized (Resolution E-4093);
2. Verification that amounts recorded in the MRTUMA since inception have been spent on the incremental costs of the MRTU program;
3. Verification that amounts recorded in the MRTUMA since inception are incremental to the amounts otherwise authorized by this Commission for PG&E's Information Technology program;
4. Verification that amounts recorded in the MRTUMA since inception have not been spent on non-MRTU Information Technology programs; and
5. Verification that amounts recorded in the MRTUMA are separately identified in PG&E's accounting system.

In rate cases, when costs have been incurred, there is always a lag before recovery; it is in the nature of the procedure. Here the revenue requirements

were incurred in 2010 and 2011; under PG&E's proposal it will begin recovery of costs in 2012; under DRA's proposal the recovery would start in 2013, at the earliest, and perhaps later; but the numbers would not be expected to change. To the extent possible we should set rates so that the ratepayers who benefit from the capital expense should be those who pay for it; that is, shorten the lag.

DRA argues that PG&E's position is contrary to Res. E-4093, which states:

> "PG&E shall seek recovery of amounts recorded in the MRTUMA . . . . " (Emphasis added.)

Yet, in D.09-10-046, this Commission authorized rates that included items that had not been recorded during the year in question.

The capital projects at issue in this ERRA proceeding are in operation, are in rate base, have been recorded in the MRTUMA, and have been reviewed and found reasonable by DRA. We see no reason to delay recovery of the requested revenue requirements.

12.4.5. PG&E's Revenue Requirement Request is Not Artificially Low

DRA states that PG&E's revenue requirement request of $18.3 million is artificially low, due in part to the tax treatment of some portions of these expenditures. While DRA is correct that tax treatment has an effect on the requested revenue requirement, DRA errs in concluding that PG&E's revenue requirement is artificially low.

PG&E's revenue requirement request is lower than it would otherwise be due to favorable tax treatment for portions of PG&E's MRTU implementation expenditures. According to Revenue Procedure 2000-50 (2000-2 CB 601), the costs of developing software so closely resemble the kind of research and experimental expenditures that fall within the purview of Internal Revenue Code Section 174, that the Internal Revenue Service believes they warrant similar

account treatment. By following this treatment, and using the flow-through accounting method for internally developed software, PG&E's customers benefit by having to pay a lower rate in the first year of cost recovery than they would if PG&E did not classify any of its internal software development costs as "research and development" for tax purposes. This treatment is appropriate, and should be reflected in the revenue requirements adopted in this proceeding.

13. Comments on Proposed Decision

The proposed decision of ALJ Barnett in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code, and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed by PG&E and DRA. The comments pointed minor errors, which have been corrected.

14. Assignment of Proceeding

Michel Peter Florio is the assigned Commissioner and Robert Barnett is the assigned ALJ in this proceeding.

Findings of Fact

1. PG&E shall include in future ERRA proceedings an explanation of its internal controls for ensuring compliance with its Commission-approved Hedging Plan, but because its internal financial hedging controls and procedures are complex as well as commercially sensitive, PG&E's application shall include a public high level discussion of its internal procedures and controls for ensuring compliance with Commission-approved hedging plans, after which PG&E shall make its experts available to provide additional details to DRA staff at in-person meetings in the context of which PG&E would provide written information to DRA under Pub. Util. § 583 confidentiality protection as appropriate.

2. DRA and PG&E reached an agreement resolving their dispute over DRA's request that the Commission establish an ongoing process of ratepayer input into the development of PG&E's annual internal audit plan. We adopt the following in this decision:

> In support of DRA's efforts to learn about and understand PG&E's Internal Audit (IA) plan, and to allow DRA an opportunity to provide suggestions on the IA plan, PG&E's Internal Auditing Department shall provide DRA its draft audit plan in or about November and meet at a mutually agreeable time to review the draft Internal Audit plan as it relates to the ERRA subject matter. After reviewing PG&E's IA plan, DRA may provide suggestions regarding that plan as it relates to the ERRA subject matter. At any time during the year, DRA may provide such comments and suggestions on the IA plan as it relates to the ERRA subject matter because the plan is a living document and can be amended during the audit year. However, as DRA as stated in its testimony, DRA may not exert any management control of PG&E's internal auditing program.

3. At the close of the Record Period, PG&E's ERRA balancing account reflected an undercollection of $71.8 million.

4. DRA's audit of the entries PG&E recorded in its ERRA for the Record Period disclosed no items of a material nature requiring adjustments.

5. DRA's review of PG&E's RPSCMA account for the Record Period disclosed no items of a material nature requiring adjustments. DRA does not object to PG&E's request for the transfer of the entire $385,772 balance in ERRA for recovery.

6. Information presented in PG&E's ERRA showing that would place PG&E at a competitive disadvantage if disclosed was placed under seal.

7. Implementation of the CAISO's MRTU fundamentally changed the manner in which energy is procured and sold by energy market participants in California.

8. The processes required to support MRTU are substantially more complex that the previous processes the CAISO used to balance the electric demand and generation on the transmission grid under the CAISO's control.

9. Changes included with MRTU include the establishment of approximately 3,000 pricing nodes for the CAISO-controlled grid, the re-introduction of a centralized day ahead energy market, and use of a full network transmission model to take transmission congestion into account.

10. Implementation of MRTU required significant changes to the CAISO's systems and processes.

11. Implementation of MRTU required significant changes to PG&E's systems and processes.

12. As MRTU implementation challenges arose, the CAISO adjusted its MRTU implementation schedule at least six times.

13. During the course of MRTU implementation, there was a 17-month increase in the duration of the implementation project.

14. The CAISO's business policies and procedures for MRTU evolved constantly during the MRTU implementation project.

15. PG&E established specific orders to track incremental capital costs and total incurred expense costs associated with PG&E's MRTU implementation activities.

16. PG&E's Project Management Office, Energy Policy Planning and Analysis, Front Office, Middle Office, Back Office, Information Systems Technology

Services, and Demand Response Departments incurred significant incremental activity as PG&E implemented MRTU.

17. PG&E's Front Office is responsible, among other things, for the maintenance of PG&E's risk management control objectives, and carrying out this responsibility was substantially affected by MRTU implementation.

18. PG&E's Back Office is responsible, among other things, for the maintenance of PG&E's electric contracts for generation, and for invoicing and settlements with the CAISO, and carrying out these responsibilities was substantially affected by MRTU implementation.

19. PG&E's Demand Response Department is responsible for managing most aspects of PG&E's demand response programs, and carrying out this responsibility was affected by MRTU implementation.

20. PG&E employed methodology, which PG&E calls the PG&E Delivery Method, to manage the ISTS capital projects associated with MRTU implementation.

21. PG&E's capital expenditures for the ISTS project for the initial implementation of MRTU (Release 1) were $50.56 million.

22. The capital project for the initial implementation of MRTU involved substantial modifications to a significant number of the processes and systems used by PG&E's Front Office, Middle Office, and Back Office to manage PG&E's day-to-day procurement activities.

23. To manage the MRTU initial release capital project, PG&E had to manage the changes in business specifications and timelines coming from the CAISO as it carried out its MRTU implementation project.

24. Approximately 276,000 hours of work were necessary to carry out the capital project for the initial implementation of MRTU (Release 1), from its initial phase to its concluding phases.

25. PG&E's total incremental MRTU capital expenditures are $50.56 million.

26. PG&E's total MRTU implementation expenses are $11.96 million.

27. PG&E estimates that it was authorized $1.0 million per year for MRTU costs in its 2007 GRC decision, D.07-03-044.

28. To derive its requested revenue requirement in this proceeding, and with the intention of ensuring that does not double recover the MRTU-related amounts authorized in its 2007 GRC, PG&E has subtracted $1.0 million per year from its MRTU expenses.

29. The incremental MRTU implementation expenses for which PG&E is seeking recovery, after subtraction of $1.0 million per year, are $8.95 million.

30. PG&E has requested to recover in the generation and distribution components in PG&E's 2011 electric rates $18.1 million and $0.2 million, respectively.

31. The $18.3 million in MRTU revenue requirements that PG&E has requested to recover in 2012 electric rates is reasonable, subject to an audit.

Conclusions of Law

1. PG&E's administration of its ERRA power purchase agreements, its URG administration relative to fuel costs, its procurement least-cost dispatch activities, and its procurement-related revenue and expenses recorded in its ERRA for the 2009 Record Period were prudent and complied with its conformed 2006 Long Term Procurement Plan.

2. PG&E's administration of its allocated CDWR contracts, Non-Qualifying (QF) must take contracts, conventional generation contracts, renewable energy

contracts, AMP demand response contracts, and non-QF contracts complied with Standard of Conduct 4 of the Commission's Procurement Standards of Conduct.

3. PG&E's least cost dispatch procurement activities during the Record Period complied with PG&E's 2006 Conformed LTPP, including Standard of Conduct 4 of the Commission's Procurement Standards of Conduct.

4. PG&E's fuel expenses for the utility retained generation and procurement activities during the Record Period were prudent and complied with PG&E's 2006 Conformed LTPP.

5. PG&E's showing on utility retained generation fuel expense and administration and management of URG facilities was consistent with D.05-07-015 and D.05-04-036, by which PG&E and DRA agreed that PG&E would provide certain information in future ERRA filings as part of its response to DRA's master data request.

6. In support of DRA's efforts to learn about and understand PG&E's IA plan, and to allow DRA an opportunity to provide suggestions on the IA plan, PG&E's Internal Auditing Department shall provide DRA its draft audit plan in or about November, and meet at a mutually agreeable time to review the draft IA plan as it relates to the ERRA subject matter. After reviewing PG&E's IA plan, DRA may provide suggestions regarding that plan as it relates to the ERRA subject matter. At any time during the year, DRA may provide such comments and suggestions on the IA plan as it relates to the ERRA subject matter because the plan can be amended during the audit year. However, DRA may not exert any management control of PG&E's internal auditing program.

7. PG&E should include in future ERRA applications a public high level discussion of its internal procedures and controls for ensuring compliance with Commission-approved hedging plans. Thereafter, PG&E shall make its experts

available to provide additional details to DRA staff at in-person meetings, in the context of which PG&E would provide written information to DRA under Pub. Util. Code § 583 confidentiality protection.

8. PG&E complied with the recovery requirements of RPSCMA and it is appropriate for PG&E to recover the RPSCMA balance in this ERRA compliance proceeding.

9. PG&E's ERRA balancing account entries, reflecting an undercollection of $71.8 million as of December 31, 2009, as well as PG&E's $385,772 in RPSCMA entries as of December 31, 2009, are accurate and should be adopted.

10. PG&E's accounting books were closed on PG&E's ISTS capital project for the initial implementation of MRTU (Release 1) during 2009.

11. PG&E's accounting books were closed on PG&E's ISTS capital project for the 2009 pre-summer release of MRTU during 2009.

12. Because the books were closed on PG&E's capital project for the initial implementation of MRTU (Release 1) and on PG&E's capital project for 2009 pre-summer release of MRTU in 2009, it is appropriate to review the reasonableness of these projects in this 2009 ERRA compliance proceeding.

13. PG&E's activities to carry out its ISTS capital project for the initial implementation of MRTU (Release 1), and the resulting $50.56 million of capital expenditures, were reasonable.

14. It is appropriate to review the reasonableness of PG&E's MRTU expenses incurred prior to the end of 2009 in this 2009 ERRA compliance proceeding.

15. PG&E should be authorized to collect in 2012 rates the $18.3 million PG&E has requested to recover, subject to an audit.

16. There is no basis for allocating any of the incremental MRTU implementation expenditures PG&E has reflected in the MRTUMA to FERC jurisdiction.

17. PG&E's cost allocation recommendations appropriately consider which customers receive the benefit of MRTU implementation expenditures.

18. The $0.2 million of revenue requirement associated with demand response-related MRTU implementation expenditures is appropriately allocated to PG&E customers as are other demand response-related revenue requirements, by including these amounts in the Demand Response Revenue Balancing Account.

19. The $18.1 million of revenue requirement associated with non-demand response-related MRTU implementation expenditures is appropriately allocated to PG&E customers as are other generation-related revenue requirements, by including these amounts in the Utility Generation Balancing Account.

20. There is no mechanism for recovering PG&E's costs to implement MRTU in the CAISO's Grid Management Charge that the CAISO charges to its market participants.

21. PG&E should be authorized to recover in 2012 rates the revenue requirement PG&E has requested; the 2009 and 2010 revenue requirements associated with the ISTS capital project for the initial implementation of MRTU (Release 1); the 2009, 2010, and 2011 revenue requirements associated with the ISTS capital project for the 2009 pre-summer release of MRTU; and the 2008 and 2009 revenue requirements associated with PG&E's incremental MRTU implementation expenses, after reduction for the annual MRTU amounts previously authorized in PG&E's 2007 GRC, subject to an audit.

22. PG&E properly assumed that its internal costs of developing software will be afforded favorable tax treatment in accordance with IRS procedures.

23. PG&E properly reflected the favorable tax treatment anticipated for the costs of developing software in the revenue requirements it calculated in this proceeding.

24. Information placed under seal should remain sealed for three years, as provided in this order.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company's administration of its power purchase agreements, utility retained generation administration related to fuel costs, and procurement of least-cost dispatch power activities for the period beginning January 1, 2009 and ending December 31, 2009 (Record Period) were prudent and complied with its conformed 2006 Long Term Procurement Plan.

2. Pacific Gas and Electric Company's (PG&E) Internal Auditing Department shall provide the Division of Ratepayer Advocates (DRA) its draft audit plan in or about November, and meet at a mutually agreeable time to review the draft Internal Audit plan as it relates to the Energy Resource Recovery Account subject matter. After reviewing the Internal Auditing plan, DRA may provide suggestions regarding that plan. At any time during year, DRA may provide such comments and suggestions on the Internal Auditing plan. At any time during the year, the DRA may provide such comments and suggestions on the plan because the plan can be amended during the audit year. However, DRA may not exert any management control of PG&E's internal auditing program.

3. In future Energy Resource Recovery Account applications, Pacific Gas and Electric Company shall include a public high level discussion of its internal

procedures and controls for ensuring compliance with Commission-approved hedging plans. Thereafter, it shall make its experts available to provide additional details to the Division of Ratepayer Advocates staff at in-person meetings, in the context of which it will provide written information under Public Utilities Code Section 583 confidentiality protection.

4. Pacific Gas and Electric Company's $71.8 million Energy Resource Recovery Account (ERRA) undercollected balance as of December 31, 2009, and its procurement-related revenue and expenses recorded in its ERRA in that Record Period were reasonable and prudent.

5. Pacific Gas and Electric Company shall recover the Renewables Portfolio Standard Cost Memorandum Account balance of $385,772 by recording it in the Energy Resource Recovery Account and consolidating it with its Annual Electric True-Up for recovery as of January 1, 2012.

6. Pacific Gas and Electric Company is authorized to collect in 2012 rates the $18.3 million Market Redesign and Technology Upgrade revenue requirement that it has requested to recover in this proceeding, subject to refund based on the Commission's consideration of an audit.

7. The $0.2 million of revenue requirement associated with demand response-related Market Redesign and Technology Upgrade implementation expenditures shall be allocated to Pacific Gas and Electric Company customers as are other demand response-related revenue requirements, by including these amounts in the Demand Response Revenue Balancing Account.

8. The $18.1 million of revenue requirement that is non-demand response-related Market Redesign and Technology Upgrade implementation revenue requirement shall be allocated to Pacific Gas and Electric Company

customers as are other generation-related revenue requirements, by including these amounts in the Utility Generation Balancing Account.

9. All information placed under seal in this proceeding shall remain sealed for a period of three years from the effective date of this order.

10. Application 10-02-012 is closed.

This order is effective today.

Dated July 28, 2011, at San Francisco, California.

MICHAEL R. PEEVEY
President
TIMOTHY ALAN SIMON
MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
MARK J. FERRON
Commissioners