Application of San Diego Gas & Electric Company (U902M) for Authority, Among Other Things, to Increase Rates and Charges for Electric and Gas Service Effective on January 1, 2012.	A.10-12-005 (Filed December 15, 2010)
Application of Southern California Gas Company (U904G) for authority to update its gas revenue requirement and base rates effective on January 1, 2012.	A.10-12-006 (Filed December 15, 2010)

Application: A.10-12-006
Exhibit No.: SCG-204

PREPARED REBUTTAL TESTIMONY OF
JAMES D. MANSDORFER
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

OCTOBER 2011

SCG Doc# 260064

TABLE OF CONTENTS

PREPARED REBUTTAL TESTIMONY OF

JAMES D. MANSDORFER

ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY

I. INTRODUCTION

Southern California Gas Company (SoCalGas) respectfully presents this rebuttal testimony, regarding its Underground Storage operations, to the analysis and conclusions of the Division of Ratepayer Advocates (DRA) as it pertains to SoCalGas' Test Year 2012. Addressed herein are the differences between the forecasted gas operating and maintenance expenses as set forth in my Prepared Direct Testimony, Exhibit SCG-04-R, and DRA's testimony Exhibits DRA-44 and DRA-45. No other intervenor contested the forecasts in my SoCalGas Underground Storage testimony.

This testimony is organized as follows:

- **Section I – Introduction**
- **Section II – O&M Expenses - Rebuttal to DRA-44**
- **Section III – Capital Expenses– Rebuttal to DRA-45**
- **Section IV – Summary and Conclusions**

Table JDM-1-R summarizes the differences between SoCalGas' forecast and DRA's forecast:

Table JDM-1-R
Summary of Parties Recommended O&M Funding for TY2012
(Thousands of 2009 Dollars)

Title	SoCalGas Forecast	DRA Forecast*	Change	% Diff.
Underground Storage				
Total O&M	$28,939	$27,149*	-1,790	-0.6 %
Total Capital	$30,596	$26,140	-$4,456	-14.6 %

*Note: The value shown for DRAs O&M forecast in the above table reflects its forecast based on updated data submitted in the July 2011 errata testimony. DRA's testimony (DRA-44, pg 103, Table 44-28A) refers to the December 2010 testimony, where this value is $26,747.

In total, SoCalGas requests the Commission adopt its 2012 Test Year (TY2012) forecast of $28,939,000 for total Underground storage O&M expenses. Additionally, SoCalGas requests the Commission adopt its forecast of capital expenditures for 2010, 2011, and 2012 of $27,660,000, $31,605,000, and $30,596,000, respectively. The following summarizes DRA's testimony that seeks to change or disallow the Underground Storage expense request as presented in my revised direct testimony:

- DRA disagrees with SoCalGas' forecast methodology for base-level expense. SoCalGas proposes a five-year average for non-labor and 2009 base year recorded costs for labor. DRA proposes 2009 base year for both labor and non-labor.

  SoCalGas requests $27,231, DRA proposes $26,595;
- DRA claims that SoCalGas' incremental work activity driven by increased environmental regulations will not be at the level forecasted due to its conclusion that the timing and level of impact does not require as much compliance work as previously thought when SoCalGas developed its forecast. DRA does not oppose SoCalGas' request for additional FTEs, but disallows two of the four requested FTEs

  SoCalGas requests $304,000, DRA proposes $152,000;
- DRA opposes the request for incremental funding, driven by federal clean air mandates contained in SCAQMD Rule 317, stating that its review has concluded that the final rule "no longer requires qualifying facilities to pay a fee."

  SoCalGas requests $754,000, DRA proposes $0;
- DRA disagrees with the funding request for the newly applicable requirements of CPUC General Order (GO) 95, Overhead Electrical Line Construction. DRA bases its

conclusion on inconsistencies or the lack of support data provided by SoCalGas in workpapers and data request responses.

SoCalGas requests $245,000, DRA proposes $0;

- DRA disallows SoCalGas' request for additional expenses driven by the environmental requirements of Santa Barbara Air Pollution control District (SBAPCD) Rule 333. DRA reviewed changes to the Rule and concludes that the revisions do not appear to warrant significant changes that would justify SoCalGas' request.

  SoCalGas requests $100,000, DRA proposes $0;

- In its Table 44-28A[1], DRA combined a number of additional incremental items SoCalGas has requested, labeled as "Miscellaneous" (as identified in the workpapers), and summarily disallowed them all without discussion or justification.

  SoCalGas requests $225,000, DRA proposes $0.

In preparation of this rebuttal within the timeframe available, SoCalGas did not address each and every DRA and intervenor proposal. However, it should not be assumed that failure to address any individual issue implies any agreement by SoCalGas with the DRA or intervenor proposal.

[1] DRA-44, p. 105.

II. OPERATION & MAINTENANCE EXPENSES

SoCalGas requests O&M funding for TY2012 of $28,939,000. Included in this expense forecast is a base-level amount, $27,231,000, derived from historical data for Underground Storages routine activities as well as expenses of $1,708,000, for new and incremental activities.

Rebuttal to DRA-44

DRA has based its proposals on my December 2010 direct testimony and did not address the errata submitted in my revised direct testimony submitted in July 2011. The most apparent impact is the change of the combined 2009 recorded labor and non labor value from $26,595,000 to $26,997,000. My rebuttal testimony will refer to DRA's forecasting methodology applied to the updated errata values.

In its testimony, DRA has recommended reductions in SoCalGas' O&M expense request of $1,710,000. Included in its proposal is a reduction of the base-level forecast by $234,000 and the rejection of approximately 90% of SoCalGas' incremental expense request of $1,708,000, to $152,000. DRA has based its proposals largely on its interpretations of the status and impact of environmental regulation cost drivers facing SoCalGas as well as other regulatory mandates.

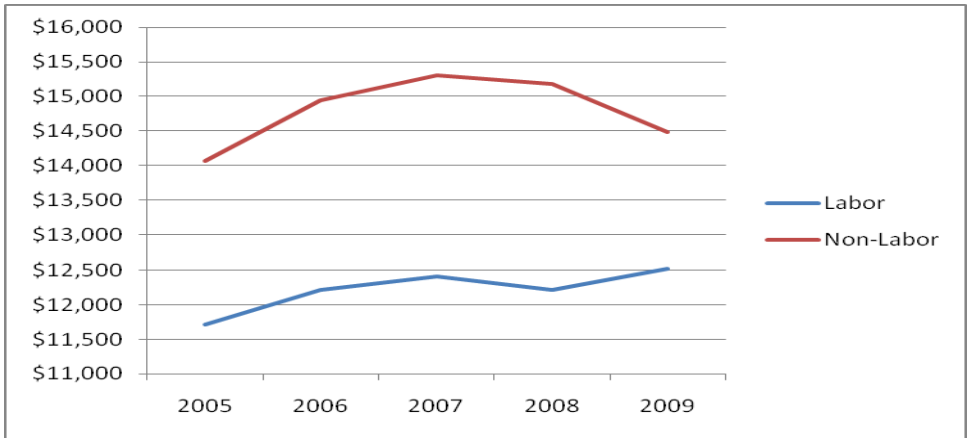
SoCalGas does not agree with DRA's evaluation and recommendations for TY2012 GRC funding for Underground Storage. I defer to the SoCalGas environmental policy witness, Ms. Haines, who addresses the status and timing of environmental regulations in her rebuttal testimony, SCG-215.

Some of these new environmental regulatory requirements are as-yet not finalized, and the final cost impact to SoCalGas cannot be definitively determined other than calculating costs based on criteria contained in the proposed rule. It is because of this uncertainty that SoCalGas proposed that these costs be included in the New Environmental Regulatory Balancing Account (NERBA) as described in the testimony of Ms. Haines.

A. Base Year Calculation Methodology

DRA's approach in determining the base year expense level discounts the fact that the labor and non-labor expenses for Underground Storage, as presented in my revised direct testimony and workpapers, have historically trended differently. This trending may not appear overly dramatic on the surface, but given the fundamental differences between labor and non-labor expenses, it is quite appropriate to forecast each differently. The graph below presents the historical labor and non-labor data points as presented in my revised direct testimony.

Figure JDM-1
Underground Storage 2005-2009 Recorded O&M Expenses
(In Thousands of 2009 Dollars)



Over the last few years, labor expenses (lower line) have been trending up. This upward trending reflects the additional FTE requirements to the organization. Barring incremental upward pressures, the current Underground Storage staffing level is appropriate for the current, ongoing, routine activities. As such, the 2009 base year level of $12,517,000 is the appropriate level for base labor expense. While addressing SoCalGas' treatment of labor expense, DRA takes conflicting stances. In one instance it states: "*DRA also disagrees with SCG's choice of the 2009 recorded labor cost because it represents the highest labor expenses during the period*

from 2005-2009."[2] Yet, two paragraphs later, DRA states that it agrees with using the 2009 recorded value: "*DRA recommends basing the 2012 Test Year on the 2009 recorded labor and non-labor expenses.*"[3] Moreover, DRA's witness took the opposite position with respect to SoCalGas' Gas Engineering expenses: *"the annual expenses for Gas engineering have been slightly decreasing from 2006 to 2009. Therefore, DRA recommends using 2009 recorded expenses as the base."*[4] DRA's suggestion is that, regardless of the justification, if expenses are trending down it recommends the low value, but if expenses are trending up it does not recommend the higher value simply because it is the higher value.

SoCalGas has carefully evaluated its historical data and compared it to how it perceives the trending of ongoing work activities. Its forecasts are based on thoughtful and comprehensive analysis, not on what produces the highest forecast. The historical labor expense data demonstrates the need for continued funding at the 2009 recorded level and therefore SoCalGas requests that the Commission approve $12,517,000 as the base level for TY2012.

As indicated in Figure JDM-1, the non-labor expenses do show historical fluctuations. This variability is largely due to these expenses being highly dependent on gas throughput within the storage fields which in turn is dependent on local, regional, and national weather and gas markets. Since these factors routinely fluctuate, the most appropriate forecasting method is averaging out the highs and lows of the historical data. SoCalGas recommends that the five-year average of $14,714,000 be adopted as the base year level for non-labor expense requirements. DRA's proposal for utilizing 2009 Base Year values is a snapshot-in-time for expenses that are

[2] DRA-44, p. 104, lines 23-24.
[3] Id. p. 105, lines 4-5.
[4] Id. p. 68, lines 11-12.

proven to fluctuate annually. The Commission therefore should adopt its forecast of $14,714,000 for base level non-labor O&M expenses for TY2012.

To summarize, SoCalGas requests the Commission adopt its O&M base forecast amount of $27,231,000 for TY2012 which includes the 2009 base year labor amount of $12,517,000 and the five-year average for non-labor of $14,714,000.

B. Greenhouse Gas (GHG) Regulations

The requirements of the new GHG regulations will require changes to existing practices for fugitive leak detection, monitoring, and repairing, as well as additional reporting and record-keeping requirements. These new regulations will generate additional work scheduling and tracking requirements, along with an increased volume of data to be collected, analyzed, reported, and stored. To manage this increased workload, SoCalGas has proposed the addition of four FTEs at a total cost of $304,000.

DRA has recognized there will be an impact from these new environmental regulations but challenges their degree and timing. DRA approves two of the four FTEs requested for a total cost of $152,000. DRA bases its proposal on a number of statements presented in its testimony:

- *"DRA is not convinced that SCG's work activity will be at the level forecasted because (1) the regulation cited is not yet finalized, and (2) the finalized rule does not require as much compliance work as previously thought when SCG relied on the proposed rule to budget work activities and expenses."*[5]
- *"As for meeting the requirements 40 CFR, 98.230, subpart W, the scope of the compliance activities has been greatly reduced with the final rule."*[6]

[5] DRA-44, p. 106, lines 13-17.
[6] Id., lines 24-25.

- *"The final rule, issued on November 8, 2010, requires the leak detection and reporting of significantly fewer locations."*[7]

The issues raised by DRA regarding the status and timing of these environmental regulations are addressed in detail by the SoCalGas environmental witness, Ms. Haines, in her rebuttal testimony, Exhibit SCG-215.

Based on the reasons provided above, SoCalGas recommends that the Commission adopt its proposal, as originally proposed in testimony, of $304,000 for incremental GHG requirement support for TY2012.

C. SCAQMD Rule 317: Clean-Air Act Non-Attainment Fees

SoCalGas requests the additional expense amount of $754,000 to address the incremental costs of meeting the requirements of SCAQMD Rule 317.

In its testimony, DRA did not challenge the fee calculations presented in testimony and workpapers. Instead, DRA disputes the ongoing applicability of this Rule to SoCalGas. In her rebuttal testimony[8], Ms. Haines discusses the details and intricacies of this Rule to the conclusion that SoCalGas is still subject to the fees.

That being the case, the Commission should adopt SoCalGas' forecast of $754,000 for incremental SCAQMD Rule 317 funding requirements for TY2012.

D. CPUC General Order 95 (G.O. 95): Overhead Electrical Line Construction

SoCalGas has requested $245,000 in incremental expenses to fund compliance activities for G.O. 95. SoCalGas owns over 500 electric poles and associated wire and transformers that are used for its own operation. Through the adoption by the Commission of D.09-08-029 on

[7] Id., p. 107, lines 1-2.
[8] SCG-215, p. DRH 21-22.

August 20, 2009, these SoCalGas systems are now required to be constructed and maintained in compliance with G.O. 95.

DRA opposes any funding for the GO 95 request even though prior to August 20, 2009, the requirements of GO 95 did not apply to SoCalGas. DRA first points out an inconsistency in SoCalGas' data. From SoCalGas' workpapers, the 2010 forecast value for the Compliance Inspection activity is stated to be the same as the "2009 actual" value. The workpaper shows the 2010 forecast as $200,000. (This infers that the 2009 actual expense was also $200,000.) However, in response to DRA-SCG-056-DAO, Q2, SoCalGas reported that it had spent $325,000 for this activity in 2009. While DRA did not inquire further, SoCalGas acknowledges this discrepancy as an oversight which should have been corrected during the errata filing. However, the following note was included at the bottom of the data response question referenced by DRA: "*Note: The 2009 recorded expenses shown above are not included in the historical expenses represented in the Rate Case filing because they were recorded in the Fire Hazard Prevention Memorandum Account.*[9]" Since these expenses were tracked differently, their value was estimated during the initial workpaper development. The initial $200,000 figure was based on an incomplete set of invoices paid in 2009 for Compliance Inspections. During the response to DRA-SCG-056, the complete collection of invoices was referenced, which totaled $325,000. The workpaper inconsistency was not recognized during the errata process. This inconsistency, however, should not be grounds for dismissing the original 2010 forecasted value of $200,000, particularly since it is only about 60% of what SoCalGas actually spent on this activity. Additionally, due to anticipated efficiencies, the TY 2012 request for Compliance Inspection is only $100,000, half of the 2010 forecast.

[9] DRA-SCG-056, Question 2.

The Commission therefore should approve $100,000 for GO 95-related Compliance Inspections.

DRA also challenges the request for $50,000 in expenses to fund Engineering Support for GO 95 activities. It argues that there were no historical expenses attributable to this activity in either the workpapers or data responses. Since SoCalGas was not impacted by this requirement until after the issuance of D.09-08-029 on August 20, 2009, there would have been no reason for SoCalGas to perform this specific activity in the past, thus a history of zero expenses is logically shown. Since SoCalGas does have an electrical system that it must operate and maintain, it is able to estimate incremental costs from prior engineering work, similar in scope, and apply those estimates to incremental work elements to make a sound forecast of the impacts of the new GO 95 requirements. These new requirements include, but are not limited to, pole wind loading calculations, conductor sizing, conductor sag and tension calculations, long span vibration analysis, voltage drop calculations, power factor evaluation, protective device coordination studies, design and drafting services, and switching procedures for taking parts of the system out of service for maintenance.

Engineering Support consists primarily of labor, calculated using man-hours required for the engineering studies or tasks to be performed. The past engineering studies that were referenced were studies and projects conducted both in-house and by contract engineers on prior projects. Some of these studies included tasks with scopes that were similar enough to allow for engineering judgment as to their applicability in forecasting the cost to meet GO 95 requirements.

SoCalGas does not have licensed electrical engineers on staff who are experienced in overhead electrical design and construction, and therefore this new work must be performed by licensed contract engineers. Contract engineering support for GO 95 compliance was not

initiated until 2010. Based on the effort involved in past work of a similar nature, and estimating the type and amount of new GO 95 activities in the future, the following estimates were made:

- In 2010, 1000 man-hours at an average cost of $100/hr ($100,000 total)
- In 2011, 500 man-hours at an average cost of $100/hr ($50,000 total)
- In 2012, 500 man-hours at an average cost of $100/hr ($50,000 total).

DRA does not attempt to challenge the estimated number of hours or the cost per hour to perform this work, or even whether this work is necessary. The Commission therefore should approve $50,000 for GO 95-related engineering support work.

DRA's final disagreement with SoCalGas' request for GO 95 expense funds is with regard to the number of Red Flag events. The estimate of five Red Flag events per year is based on data provided by Los Angeles County Fire Department. The Fire Department states that, from their experience, the maximum number of Red Flag days in any given year is 12[10]. Using this information and with the assumption that each Red Flag event would last for two days, a maximum of six Red Flag events per year would be reasonable to forecast. As a further conservative estimate, SoCalGas forecasted only five events per year for this activity.

Recent historical data reflects fairly mild conditions and limited Red Flag events. However, as infrequent as they may be in some years, their results can be devastating. The Los Angeles County Fire Department plans for up to 12 Red Flag days per year. SoCalGas must be prepared as well. When the conditions dictate, SoCalGas must be prepared to shut down its electrical system to prevent accidental fire ignition. SoCalGas must be just as prepared to re-energize its electrical system to resume storage operations as soon as the Red Flag event is complete.

[10] http://lafd.org/redflag/

SoCalGas realizes that preparation for circumstances such as Red Flag events can be variable, but the consequences of being ill-prepared can be devastating. The Commission therefore should grant its request of $75,000 for activities associated with Red Flag events.

DRA appears to have excluded forecasted expenses for two additional items associated with GO 95 by not addressing these costs in its testimony. They are: 1) Additional vegetation management at the Aliso Canyon Storage field, and 2) Wood pole inspections.

Some of GO 95's other requirements are to keep wider clearance areas beneath and around the overhead electrical systems. At Aliso Canyon, this will require additional vegetation management, or brush clearing, from under and around these facilities. Bids of $15,000 have been received for this activity. Additionally, GO 95 requires a prescribed testing regimen for wooden poles used in overhead electrical systems. Based on these requirements, SoCalGas is estimating the need to inspect 100 poles per year at a cost of $50 per pole for a total annual cost of $5,000. These expenses must be contracted out to certified contractors. Again, DRA did not in its testimony challenge the fact that these activities are required by GO 95, did not dispute the cost of performing these activities, and in fact did not discuss them at all.

The Commission therefore should adopt the TY2012 forecast of $20,000 for these additional activities associated with the requirements of GO 95 that clearly were not reflected in historical costs.

E. Santa Barbara Air Pollution Control District (SBAPCD) Rule 333

SoCalGas requests the additional expense amount of $100,000 to address the incremental costs of meeting the requirements of SBAPCD Rule 333.

Rebuttal to DRA

In its testimony, DRA did not challenge the methodology by which the additional expense was calculated in my workpapers.[11] DRA disputes whether the new revision of this rule actually requires the additional activities forecasted by SoCalGas. In her rebuttal testimony, Ms. Haines[12] discusses the impact of this Rule on SoCalGas' ongoing O&M activities.

The change to Rule 333 is of concern to Storage because the monitoring activity is more complicated than a cursory reading of the rule implies due to the addition of Title V permit constraints and the age of the affected compressor units. Title V Compliance Assurance Monitoring (CAM) requires SoCalGas to assure that the engine's air fuel ratio controller is within 5% of its set point and within a range determined from historical operations. Quarterly testing, and monthly testing where an exceedance has already occurred, may include extensive tuning activities to optimize performance of the engine, catalyst, and air fuel ratio controller to assure operations stays within the prescribed range. Portable analyzers can be damaged when left sampling for long periods of time, and therefore, the Rule 333 testing and related tuning activities are best supported by SoCalGas' mobile emission laboratory, which uses traditional emission testing analyzers that can be used for extended test durations. This adds to the cost and complexity of the periodic testing. SoCalGas' plan for addressing this issue is a more frequent replacement of the required non-selective catalytic reduction (NSCR) equipment for each engine. Our experience has shown that newer catalysts work better over a wider range of normal engine operating variation. This will simplify the tuning process, and will also minimize the probability of exceedance and avoid the costly and time-consuming processes of retesting and engine re-qualification.

[11] SCG-04-WP-R, p. 23.
[12] SCG-215, p. DRH-22.

The Commission therefore should adopt SoCalGas' forecast of $100,000 for incremental SBAPCD Rule 333 funding requirements for TY2012.

F. SoCalGas Requests Not Addressed By DRA

DRA appears to have overlooked forecasted expenses for a number of additional operation and maintenance requests by SoCalGas, as found in its own version of the Results-of-Operations model, without specifically addressing them in the narrative of its testimony. These activities are discussed below.

1. Operation Support for New Playa del Rey Dehydration Plant

Additional operational support personnel are required at SoCalGas' Playa del Rey storage facility. A new dehydration plant has been built and is now progressing through start-up processes at the Playa del Rey storage field. Its purpose is to ensure that liquids entrained in the natural gas that is being withdrawn from the field are removed prior to being introduced back into SoCalGas' piping system for customer consumption. This is a substantial addition to the facility that has been under construction for several years. Its components and operation are quite complex, requiring specially trained personnel for its operation. SoCalGas remains in start-up mode for this facility. Once it is fully operational, the process for hiring the support personnel will commence. The Commission therefore should approve this expense of $80,000.

2. Storage Operations Staff

Storage Operations finds itself having to operate with aging data management applications. Recent upgrades to some of these applications have been made to meet updated management requirements and take advantage of newer enterprise-wide systems. To support these new applications, an additional project manager is required to coordinate the ongoing Storage Operations activities with the integration of the newly developed enterprise-wide data management systems. The OPEX 20/20 applications to be reviewed include GIS, Work

Management, Forecast and Scheduling, and Supervisor Enablement. This person will evaluate the new applications to determine how Storage Operations can most effectively leverage new technology and procedures. Additionally, this person will evaluate current organizational practices and procedures to determine if modifications are necessary to more-readily integrate the new business solutions opportunities and create greater efficiency gains. Because of these improvements, the Commission should approve SoCalGas' expense forecast of $95,000 for this activity.

3. Increased Vegetation Management – Goleta

Santa Barbara County, California Coastal Commission, California Department of Fish and Game, and other agency permits are now being required for routine vegetation management activities at the La Goleta Storage facility that were previously deemed exempt. These activities now require environmental review, permitting, and onsite biological/environmental monitoring prior to, during, and after performing the work. In addition, special work practices are required to ensure protection of the environment. Based on historical costs and the incremental activities the new requirements will impact, the Commission should adopt the incremental expense increase of $50,000 for these new activities.

III. CAPITAL EXPENDITURES

In DRA-45, on pages 12 through 14, DRA proposes that incremental amounts in Budget Codes (BC) 4X1 - Compressor Stations, 4X3 - Pipelines, and 4X9 - Aux Equipment be disallowed as either "unnecessary" or "inappropriate." DRA bases its proposal on its belief that "the historical expenditures for each of the years used in calculating the annual average have already captured any addition of new projects and subtraction of expired projects and therefore by definition, the yearly average number has already accounted for new projects added."

SoCalGas disagrees with DRA's characterizations and its basis for its recommended disallowances as discussed below.

A. Compressor Stations (Budget Codes 401, 411, 421, and 431).

Rebuttal to DRA

This Budget Code provides for necessary capital maintenance, replacements, overhauls, and upgrades at the various storage field compressor stations to ensure safety, maintain or improve reliability, and meet the required capacities of the main compressor units. SoCalGas has requested funding for years 2011 and 2012 that is equal to the five-year average for this BC to which was added $1,438,000 in each year for two turbine-driven compressor (TDC) overhauls. The two TDC overhauls are incremental costs due to the fact that such overhauls are infrequent, are very costly, and did not occur during the five years used for averaging. The Aliso Canyon TDC project is required due to a delay in the issuance of the Aliso Canyon Turbine Replacement Amended Certificate of Public Convenience & Necessity (CPCN), as compared to the previously anticipated issuance date. This deferral necessitates additional capital expenditures in order to keep the TDCs in service until ultimate replacement.

DRA has recommended that the incremental TDC costs be disallowed because "the historical expenditures for each of the years used in calculating the annual average have already captured any addition of new projects and subtraction of expired projects." DRA then concludes that the incremental TDC funding is "unnecessary." SoCalGas disagrees with DRA's suggested disallowance. In SoCalGas' responses to data requests DEF-SCG-012-KCL[13] and DRA-SCG-052-KCL[14], SoCalGas stated: "To the five-year average used for years 2011 and 2012, $1,438K

[13] Attachment-A
[14] Attachment-B

was added for turbine-driven compressor (TDC) overhauls that were not included in historic costs for 2005 through 2009."

It would appear that the size and infrequency of TDC overhauls is misunderstood by DRA. These are not routine projects that regularly appear during any five-year period. That no TCD overhauls, which are very costly, were performed in the 2005 to 2009 time frame might have been overlooked by DRA in preparing its testimony.

To reiterate, these overhauls are appropriately described as incremental because such overhauls are infrequent and none took place during the five recorded years used for averaging. Simply because a necessary capital expenditure does not take place in any given period does not make it any less necessary. If the overhauls were to be disallowed, it could have a serious effect on SoCalGas' ability to meet customer demand in a reliable manner. The Commission therefore should reject DRA's proposed disallowance and adopt SoCalGas' planned expenditures as reasonable and appropriate.

B. Pipelines (Budget Codes 403, 413, 423, and 433)

Rebuttal to DRA

This Budget Code includes costs associated with natural gas pipelines used wholly or predominantly for conveying natural gas from transmission or field lines to underground storage wells for injection, and from the underground storage withdrawal wells to the point where the natural gas enters the transmission or distribution system. SoCalGas requests funding for years 2011 and 2012 that is equal to the five-year average for this BC to which was added $1,218,000 in each year to replace a badly eroded pipe bridge (span) in the Aliso Canyon storage field. The span project is incremental due to the fact that it is a very high-cost undertaking and nothing remotely associated took place during the five years used for averaging. As such, a five-year

average amount in this BC would not even come close to providing for this highly necessary project.

DRA proposes that the incremental bridge replacement be disallowed because "the historical expenditures for each of the years used in calculating the annual average have already captured any addition of new projects and subtraction of expired projects." DRA then concludes that the incremental Bridge project is "unnecessary." SoCalGas disagrees with DRA's recommended disallowance.

In its responses to DEF-SCG-012-KCL, SoCalGas stated: "To the five-year average used for years 2011 and 2012, $1,218K was added each year to replace the pipeline span support for Line FF38 in the Aliso Canyon field. This is considered additive because no similar work took place in years 2005-09."

The span support replacement for FF38 is truly incremental in both its nature and its scope. No such span support/bridge replacements of any kind were performed during the recorded years 2005 through 2009. The support at Aliso Canyon had been steadily eroded by heavy rains and an active landslide during the recorded years and had become critical by 2009. This and other factual information related to the scope and nature of this project was presented to DRA in Exhibit SCG-04-CWP on workpaper JDM-CWP-12 which may have been overlooked by DRA. Five-year average funding in this BC would not even come close to providing for the bridge replacement. That the SoCalGas forecasts for 2011 and 2012 are conservative (even while including the bridge replacement as an incremental cost) is evidenced by the fact that the 2009 base year recorded amount was $4,303,000 in this BC, which exceeds each of the 2011 and 2012 base forecasts by nearly $1,200,000. In addition, the 2010 forecast exceeds the 2011 and 2012 plan by nearly the same amount and, additionally, the 2010 recorded amount exceeded the

forecast by approximately $700,000.[15] SoCalGas notes that DRA has no quarrel with adopting SoCalGas' forecast for 2010 which is lower that the recorded cost by $700,000 as noted above. DRA has recommended adopting 2010 recorded amounts in other BCs when the recorded cost is lower than forecasted. If the Commission adopts 2010 actual capital costs lower than forecast for other BCs, it should adopt SoCalGas' recorded 2010 cost in this BC, which was $4,974,000.

In conclusion, the incremental Bridge Replacement project is unlike any other project in the five years used for forecasting and is therefore appropriately characterized as incremental. The Commission therefore should reject DRA's proposed disallowance and adopt SoCalGas' forecast as reasonable and appropriate.

C. Auxiliary Equipment (Budget Codes 409, 419, 429, and 439)

Rebuttal to DRA

This BC includes work on various types of field equipment not captured in other budget codes such as instrumentation, measurement, controls, electrical, drainage, infrastructure, transportation, safety, and communications systems.

The forecast for 2010 is based on the specific capital budget for this BC, which includes funds for 25 projects that range in cost from $51,000 to $3.6 million. The forecast for years 2011 and 2012 is based on the average of recorded costs in years 2005-2009 to which is added the cost of compliance with new GO 95 requirements including extensive modification to the power supply grid in the storage fields for fire prevention purposes. The incremental amounts are $1,800,000 added to each year. Also added incrementally to the 2011 forecast is $1,009,000

[15] SoCalGas generally objects to the use of 2010 actual cost data for GRC forecasting but, if the Commission nevertheless decides to use such data, it should be aware of cases where actual 2010 costs exceeded the 2010 forecast.

for the Aliso Canyon plant power system upgrades. Both of these projects are necessary, very costly, and nothing like them is represented in the five years used for averaging.

DRA has recommended that the new costs related to GO-95 and the Aliso Power system upgrades be disallowed because: "the historical expenditures for each of the years used in calculating the annual average have already captured any addition of new projects and subtraction of expired projects." DRA ignores, however, that GO-95 was not in effect during the five-year period used for averaging, and no power system upgrade took place somewhere in the storage system during that time.

SCG disagrees with DRA's characterization of the two projects as "unnecessary." The first of the two projects, the Aliso Canyon Electrical System Upgrade, is explained in my revised direct testimony in Exhibit SCG-4, page JDM-25 and in considerably more detail in Exhibit SCG-04-CWP, pages JDM-CWP-16 and 17. It also was addressed in SoCalGas' responses to DEF-SCG-012-KCL, in which SoCalGas stated: "To the five-year average for years 2011 and 2012 was added $1,800(K) in both years for electrical system upgrades required by GO-95." DRA may have overlooked that GO-95 now makes private utility electrical distribution systems subject to the same standards as those placed on electric public utilities regulated by the Commission and became effective in August 2009. The electric system upgrades mandated by GO-95 were therefore certainly not a part of operations conducted during the recorded years of 2005 through 2009. This Commission-mandated project is therefore an appropriate increment to the five-year average of this BC. The Commission therefore should reject DRA's proposed disallowance and adopt SoCalGas' forecast as reasonable and appropriate.

The second project DRA proposes to disallow is the Aliso Canyon Plant Power System Upgrades. This project incrementally adds to the five-year average $1,009,000 in 2011 only and provides for replacement of three Motor Control Centers (MCC) that are decades old. This

project is explained in my testimony in Exhibit SCG-4, page JDM-25 and in considerable more detail in Exhibit SCG-04-CWP, page JDM-CWP-18. It also appears in SoCalGas' response to DEF-SCG-012-KCL which states: "To the five-year average for year 2011 was added $1,009(K) for plant power upgrades at the Aliso Canyon storage field. [It is] considered additive because no similar work took place in years 2005-09." Smaller power system upgrade projects took place in the storage fields during this time, but not one that included replacement of three MCCs. As such, this project is appropriately incremental because of the unique size and scope of the undertaking.

Further evidence that SoCalGas' forecasts for years 2011 and 2012 are appropriate is that 2010 recorded costs in this BC were $8,103,000, which was $2,200,000 higher than the 2010 forecasted amount of $5,923,000. DRA has no quarrel with adopting SoCalGas' forecast for 2010 which is lower that the recorded as noted above. DRA has recommended adopting 2010 recorded amounts in other BCs when the recorded cost is lower than forecasted. If the Commission adopts actual 2010 capital costs when lower than the 2010 forecast, it should adopt SoCalGas' recorded 2010 amount in this BC, which was $8,103,000. The Commission therefore should reject DRA's proposed disallowances in 2011 and 2012 and adopt SoCalGas' forecast as reasonable and appropriate.

IV. SUMMARY AND CONCLUSION

As outlined in this testimony, DRA's recommendations are based on faulty forecasting methodology, inaccurate assumptions, or an incomplete understanding of SoCalGas' storage operations. SoCalGas is faced with numerous incremental regulatory challenges and capital improvement needs that I have detailed in my revised direct testimony, workpapers, and this rebuttal testimony. My revised direct testimony, workpapers, responses to data requests, and this

rebuttal testimony provide substantial justification for the Commission to authorize SoCalGas' Underground Storage O&M and capital requests in full.

This concludes my prepared rebuttal testimony.

ATTACHMENT-A

Response to Data Request DEF-SCG-012-KCL

DRA DATA REQUEST
DEF-SCG-12-KCL
SOCALGAS 2010 GRC NOI
DATE RECEIVED: SEPTEMBER 8, 2010
DATE RESPONDED: SEPTEMBER 23, 2010

Deficiency Item #: DEF-SCG-12-KCL

Reference #: Exhibit Nos. SCG-4 and SCG-04-CWP

Deficiency:

A. Statements indicating that the forecasts for 2011 and 2012 are the result of averaging recorded costs in year 2005 to 2009 are included in all of the capital expenditures subsections in SCG-4 (subsections IV.B.1 to 5) and/or in several capital project workpapers in SCG-04-CWP. However, the recorded costs for the years 2005 to 2009 are not shown in either exhibit.

SCG needs to:

1. Provide the recorded costs for each of the 5 years from 2005 to 2009 in either SCG-4 and/or SCG-04-CWP where these costs are referenced.

SoCalGas Response:

Please see accompanying worksheet (DEF-SCG-12-Data.pdf) for historic amounts in years 2005-2009 for those budget codes where 5-year averaging was employed for 2011-12 forecasts.

The historic costs are adjusted according to the following:

- Factors used to adjust numbers to 2009 level dollars were those published in February 2010.
- Amounts sponsored in other CPUC proceedings were manually excluded.
- Insurance payments received in 2009 were manually credited to year in which wild fire losses were incurred.

Response prepared by: M. J. Watkins; (213) 244 5413


DEF-SCG-12-Data

DEF-SCG-12-KCL Response
Historic 2005-09 costs used for 5-year averaging
($1000)

Budget Code	2005 Recorded	2006 Recorded	2007 Recorded	2008 Recorded	2009 Recorded	Comments
401 through 431	4,168	5,759	4,766	4,882	7,489	NOTE: To the 5-year average used for years 2011 and 2012, $1,438 was added for turbine-driven compressor (TDC) overhauls that were not included in historic costs for 2005 through 2009. NOTE: Values shown here used for trending have non-GRC amounts removed for Aliso Compressor
402 through 432	4,539	1,185	9,628	17,079	5,651	NOTE: Values shown here used for trending have non-GRC amounts removed for BCAP Expansion Montebello Decommission Native Gas Also removed from trending was the Cushion Gas project because this was a one-time charge in years 2005 and 2006. Excluded amounts, by year, are available by request.
403 through 433	1,631	738	2,641	2,062	4,303	NOTE: To the 5-year average used for years 2011 and 2012, $1,218 was added in each year to replace the pipeline span support for Line FF38 in the Aliso Canyon field. Considered additive because no similar work took place in years 2005-09. NOTE: Values shown here used for trending have non-GRC amounts removed for Montebello Decommission Native Gas
404 through 434	724	1,583	2,288	6,347	10,015	NOTE: Values shown here used for trending have non-GRC amounts removed for Montebello Decommission Native Gas
409 through 439	6,229	4,575	8,412	8,755	6,159	NOTE: From year 2008 was subtracted $905.8 in costs that were recovered through insurance payments for wildfire damage mitigation. To the 5-year average for years 2011 and 2012 was added $1,800 in both years for electrical system upgrades required by GO-95 To the 5-year average for year 2011 was added $1,009 for plant power upgrades at the Aliso Canyon storage field. Considered additive because no similar work took place in years 2005-09. NOTE: Values shown here used for trending have non-GRC amounts removed for Montebello expansion Montebello Decommission Native Gas

ATTACHMENT-B

Response to Data Request DRA-SCG-052-KCL

DRA DATA REQUEST
DRA-SCG-052-KCL
SOCALGAS 2012 GRC – A.10-12-006
SOCALGAS RESPONSE
DATE RECEIVED: MARCH 1, 2011
DATE RESPONDED: MARCH 15, 2011

Exhibit Reference: SCG-04 and SCG-04-CWP

Subject: Underground Storage Capital Expenditures

Please provide the following:

1. In SoCalGas' response to data request DEF-SCG-12-KCL dated September 23, 2010 for the SoCalGas 2010 GRC NOI, the comments on Budget Codes 401 through 431 state "To the 5-year average used for years 2011 and 2012 $1,438(K) was added for turbine-driven compressor (TDC) overhauls that were not included in historic costs for 2005 through 2009". In Workpapers SCG-04-CWP under Budget Number 00411.01, the number shown for 2012 is $2,336 (K), please explain.

SoCalGas Response:

In Budget Category (BC) 4X1, the five-year average of recorded adjusted costs is $5,413. For year 2011, $1,438 for Turbine-Driven compressors (TDC) was added to the five-year average to arrive at the BC plan of $6,851. In 2012, SoCalGas forecasts the same amount for BC 4X1 as in 2011.

As indicated in SCG-04-CWP 00411.01, the estimated 2012 expense for the TDC project is $2,336(K). However, when estimating the overall expense for the entire BC 4X1, it was determined that the incremental increase for the TDC project in 2012 would be offset by a corresponding reduction in the Storage blanket account, 00411.00. This has the net effect of applying the same incremental adjustment ($1,438(K)) for both 2011 and 2012.

DRA DATA REQUEST
DRA-SCG-052-KCL
SOCALGAS 2012 GRC – A.10-12-006
SOCALGAS RESPONSE
DATE RECEIVED: MARCH 1, 2011
DATE RESPONDED: MARCH 15, 2011

2. In SoCalGas direct testimony SCG-04, pages JDM-21 and -22 under Budget Codes 312, SoCalGas requests capital expenditures for two well replacements per year. Please provide the number of wells replaced each year from 2005 to 2009.

SoCalGas Response:

Note: SoCalGas addresses Budget Code (BC) 412 in response to this question. BC412 represents expenses for *"Gas Transmission - Storage – Wells",* as presented in Exhibit SCG-04. BC312 represents expenses for *"Gas Transmission Pipeline Replacement",* as presented in Exhibit SCG-05.

SoCalGas did not drill any new wells as replacements during the 2005 to 2009 period. However, the average annual capital expenditure for the category covering storage wells over this period was $7,616 (K), excluding expenditures related to the 2005-2006 cushion gas project to benefit CARE customers. This was spent on upgrading old wells, for work such as installing a new gravel pack, installing an inner casing string to cover a hole in the old casing and other capital refurbishment of existing wells instead of drilling new ones. SoCalGas has a number of storage wells that are over 70 years old, and many more approaching 40 years old.

In 2009, SoCalGas determined that it would be better, over the long term, to now direct that capital spending toward the drilling of replacement wells. Drilling larger diameter wells and using modern completion technology often allows replacing the deliverability of several old wells with one new well. This will reduce O&M costs over the long run. That is why the proposed 2012 capital budget for wells has a greatly reduced blanket component (compared to 2005-09) and a new category for replacement wells. Because the mobilization and demobilization of a drilling rig is so costly for only one well, it makes sense to drill at least two at a time in order to spread that equipment cost and lower the unit cost per well.

DRA DATA REQUEST
DRA-SCG-052-KCL
SOCALGAS 2012 GRC – A.10-12-006
SOCALGAS RESPONSE
DATE RECEIVED: MARCH 1, 2011
DATE RESPONDED: MARCH 15, 2011

3. In SCG-04-CWP under Budget Number 00412.02, the costs for two well replacements are $7.019 million. Please provide detailed cost buildup for the $7.019 million.

SoCalGas Response:

Following is a cost estimate per well:

Wells 2 per year cost calc.xls

Replacement Storage Well (Costs in main table are in dollars, cost summary dollars below main table are in $x1000)

Description Drill and complete the high angle replacement storage well to 7500' (+/-).

Program step

	Pre-rig work	MIRU / Drilling Rig	Install Diverter - Test/Pick up DP	Install Diverter - Test/Pick Up DP	Drill 13-3/8" Surface Hole	Drill 13-3/8" Surface Hole	Drill 13-3/8" Surface Hole	Run 13-3/8" Surface Casing/Cement	Install Casing Head/Nipple Up BOPE	Nipple Up BOPE/Test	12-1/4" Hole - Drill Ahead	12-1/4" Hole - Drill Ahead	12-1/4" Hole - Drill Ahead	12-1/4" Hole - Drill Ahead	12-1/4" Hole - Drill Ahead	12-1/4" Hole - Drill Ahead	12-1/4" Hole - Drill Ahead	12-1/4" Hole - Drill Ahead	12-1/4" Hole - Drill Ahead	Condition Hole/Run Triple Combo	Wiper Trip/Run 9-5/8" Casing	Run 9-5/8" Casing/Cement	Cleanout Cement/Change Over to Polymer	Drill 8-1/2" Hole w/ LWD	Drill 8-1/2" Hole w/ LWD	Drill 8-1/2" Hole w/LWD	Wiper Trip/Spot Hi-Vis Pill/UBIT log	Pick up/Run 5" WWS Liner	Gravel Pack 5" Liner	Spot Breaker / POOH	Run 9-5/8" Packer/Secure Well	Rig Down / Move	Move In Rig Up Ensign 321/Nipple Down BOP	Install 11" 5M Tubing Head	Nipple Up 11" BOPE/Test	Run Tubing / Packer	Run Tubing / Packer		TOTAL by category
DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Post rig		
Location	140000																																				25000	165000	Location
Mob & demob		140000																													45000	10000					10000	205000	Mob & demob
Rig cost		35000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	23000	19500	19500	19500	19500	19500	25000	9800	9800	9800	9800	9800	10000	745500	Rig cost
Cement								35000													110000																	145000	Cement
Fuel	3000		1200	1200	2400	2400	2400	2400	1200	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400								66600	Fuel
Mud Sys/Disposal		20000	5000	5000	4000	4000	4000	6000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	4000	4000	4000	12000	4000	4000	4000	12000	5000	1200	8000	3000	5000	1200	1200	1200	1200	1200	35000	189200	Mud Sys/Disposal
MWD/Logging											26200	26200	26200	26200	26200	26200	26200	26200	26000	4000	4000	4000	51200	51200	51200	13000											8000	422200	Logging
Drill Bits					24000					3000	3000	3000	3000	3000	3000	3000	3000	3000					3000	3000	3000												60000	Drill Bits
Tools			6000	8000	6000	6000	4000	8000	6000	5000	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	9000	1100	1100	1100	1100	1100	1300	1300	1600	2000	8000		2000	2000	2000	2000	25000	121700	Tools
Misc	25000	11000	5000	6000	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1600	1600	1600	1600	1600	2000	3500	4000	2000	2000	29000	126100	Misc
Completion																											80000	100000										180000	Completion Costs
Contract Labor	13000	9000	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1200	1200	1200	1200	1200	1200	6000	74200	Contract Labor
SoCalGasLabor																																						0	SoCalGasLabor
Fishing																											4000	4000		4000			2000					14000	Fishing
Compliance																																						0	Compliance
TANGIBLES																																							
Casing/Liner								54000													529000						80000											663000	Casing/Liner
Prod. Equip																																				83000	83000	Production Equip
Wellhead									60000																											3000	63000	Wellhead
Surface Piping																																					50000	50000	Surface Piping
Daily Total	181000	215000	41600	44600	62100	38100	36100	131100	95900	39100	61400	61400	61400	61400	61400	61400	61400	61400	59200	37200	684100	45200	87400	87400	87400	50700	195200	131400	34500	33700	85800	24200	19700	18200	16200	102200	198000	3373500	
Cumulative	181000	396000	437600	482200	544300	582400	618500	749600	845500	884600	946000	1007400	######	######	######	1253000	######	######	######	######	######	######	######	######	######	2514400	2709600	2841000	2875500	2909200	2995000	3019200	3038900	3057100	3073300	3175500	3373500	

Location	25000
Mob & demob	10000
Rig cost	10000
Cement	
Fuel	
Mud Sys/Disposal	35000
Logging	8000
Drill Bits	
Tools	25000
Misc	29000
Completion Costs	
Contract Labor	6000
SoCalGasLabor	
Fishing	
Compliance	
Casing/Liner	
Production Equip	
Wellhead	
Surface Piping	50000

Compliance	2514500
	-197500
	859000
	198000

SUMMARY COST TABLE

New Well Cost Categories ($x1000)

Drilling Cost (Includes location and surface tie-in): (columns B to AA, and AL)	$2,712
Completion Cost: (columns AB to AK)	$661
Company Labor:	$136
Total Well Cost	**$3,510**

DRA DATA REQUEST
DRA-SCG-052-KCL
SOCALGAS 2012 GRC – A.10-12-006
SOCALGAS RESPONSE
DATE RECEIVED: MARCH 1, 2011
DATE RESPONDED: MARCH 15, 2011

4. Please provide status of the following projects that were scheduled to be completed in 2010: Budget Numbers 00412.01, 00412.02, 00412.03, 00413.02, and 00414.01.

SoCalGas Response:

Budget Numbers 00412.01 (wellhead replacement) and 00412.03 (tubing replacement) are not budgets that end in the sense that there is a final overall in-service date (as in a single project with its own budget code). These budgets are used as a way to categorize the individual well capital projects that were spent, as in a 'blanket' budget. There are many individual wellheads and tubing that need to be replaced nearly every year; similar to the gas distribution mains and service replacements. There were a number of wellhead and tubing replacement jobs completed in 2010. The finalized 2010 expenditure data is not yet available.

In 2010, SoCalGas planned to drill two new replacement storage wells (Budget Number 00412.02). The well site was prepared for both wells but only one well was drilled because the Honor Rancho expansion was approved by the CPUC mid-year, and with no other suitable drilling rigs available, the same rig needed to be used for drilling on that project.

For Budget Number 00413.02 (Honor Rancho High Pressure Production Pipeline Replacement), this was completed and put into service in July 2010.

For Budget Number 00414.01 (Playa del Rey dehydration plant), this was functional and put into service in May 2010. There are still minor items being completed, and these are to be finished by end of March 2011.