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Commissioner	:	Ferron
ALJ	:	Wong
Witness	:	Max Gomberg

DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION

Report on the Results of Operations for San Diego Gas & Electric Company Southern California Gas Company General Rate Case

Test Year 2012

SDG&E
Customer Services–Field Operations & Customer Contact
Operation & Maintenance Expenses
Capital Expenditures

San Francisco, California
September 1, 2011

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CUSTOMER SERVICES FIELD OPERATIONS & CUSTOMER CONTACT

I. INTRODUCTION

This exhibit presents the analyses and recommendations of the Division of Ratepayer Advocates (DRA) regarding San Diego Gas & Electric Company's (SDG&E) forecasts of Customer Services Field Operations and Customer Contact (CSF&CC) expenses for Test Year (TY) 2012.

The expense areas discussed in this exhibit include customer service field operations, the Customer Contact Center, Branch Offices and Authorized Payment Locations, Advanced Metering Infrastructure and Home Area Networks. This exhibit also covers proposed capital expenditures related to customer support tools, Home Area Networks, and service order routing.

II. SUMMARY OF RECOMMENDATIONS

The following summarizes DRA's recommendations:

- Reduce proposed increases for Customer Contact Center by $856,000 (69%).
- Disallow all HAN Initiative and DERMS capital requests ($18.346 million).
- Reduce proposed increases for Branch Offices & Authorized Payment Locations by $107,000.
- Disallow ratepayer funding for the SORT Upgrade project ($4.289 million).
- Reduce forecasted level of carbon monoxide alarm orders ($100,000).

Table 16-1 compares DRA's and SDG&E's TY 2012 forecasts of CSF&CC expenses:

Table 16-1
CSF&CC Expenses for TY 2012
(In Thousands of 2009 Dollars)

Description (a)	DRA Recommended (b)	SDG&E Proposed[1] (c)	Amount SDG&E>DRA (d=c-b)	Percentage SDG&E>DRA (e=d/b)
CSF&CC Non-Shared	$33,483	$34,696	$1,213	3.6%
CSF&CC Shared Services	$788	$788	$0	0%
Total	$34,271	$35,484	$1,213	3.5%

SDG&E proposes a total TY 2012 decrease in these expense accounts of $2.546 million. DRA recommends an additional adjustment of $1.213 million, a further decrease of 47.6 percent to SDG&E's requested decrease of $2.546 million.

[1] Exh. SDG&E-13, Vol. I, Ch. D, p. 5.

Table 16-2 compares DRA's and SDG&E's 2010-2012 forecasts of CSF&CC related capital expenditures:

Table 16-2
CSF&CC Capital Expenditures for 2010-2012
(In Thousands of Nominal Dollars)

Description	DRA Recommended			SDG&E Proposed[2]		
	2010	2011	2012	2010	2011	2012
CSR Online Customer "Helpdesk Support Tools	$0	$0	$1,551	$0	$0	$1,551
SORT Upgrade Project	$0	$0	$0	$0	$1,304	$2,985
HAN DRCA Implementation	$0	$0	$0	$0	$1,856	$3,126
HAN Infrastructure	$0	$0	$0	$0	$1,770	$1,990
HAN Systems Integration	$0	$0	$0	$0	$1,356	$2,463
HAN Lab (Facilities)	$0	$0	$0	$0	$0	$700
DERMS	$0	$0	$0	$0	$0	$5,085
Total	$0	$0	$1,551	$0	$6,286	$17,900

III. DISCUSSION / ANALYSIS OF CSF EXPENSES

A. Overview of SDG&E's Request

SDG&E proposes a total reduction of $3.127 million in CSF estimated expenses.[3] CSF expenses include Smart Meter Benefits, Smart Meter Costs, Drive Time Change, Meter and Regulator Replacements, Carbon Monoxide Testing, Dispatch and Supervision, among others. DRA's discussion below is limited to areas where DRA disputes SDG&E's forecast.

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[2] Exh. SDG&E-13, p. 6.

[3] Id., p. 19.

B. DRA Modifications to SDG&E Proposed CSF Expenses

DRA recommends an additional decrease of $250,000 million in CSF estimated expenses. DRA's disallowances are for the following expense categories: Drive Time Change and Carbon Monoxide Testing.

1. Drive Time

SDG&E assumes a 1% increase in average drive time per field order.[4] SDG&E does not provide a justification for its forecasted increase other than noting that its proposed increase is less than DRA's proposed increase in a prior GRC. SDG&E also states that its proposed increase is consistent with planning assumptions from previous GRCs.[5]

DRA has not located any credible current evidence that suggests drive times in SDG&E's service territory are increasing. In fact, California's continue high unemployment rate and lower customer growth suggests that fewer vehicle trips are occurring. Hence, DRA recommends that no additional expenses for drive time be allowed.

2. Carbon Monoxide Alarm Orders

SDG&E requests an additional $138,000 for increased Carbon Monoxide (CO) alarm orders due to SB 183, which became effective July 1, 2011. SB 183 requires CO detectors in single family homes by July 1, 2011 and in other dwelling units by January 1, 2013.[6] While SDG&E forecast a total of 3,287 CO orders in 2010 and 4,398 orders in 2011, from June 1, 2010 to May 31, 2011 SDG&E completed only 2,283 CO orders.[7]

Therefore, DRA recommends reducing SDG&E's proposed $138,000 by $100,000. An incremental $38,000 will more accurately reflect the growth in CO orders.

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[4] Id., p. 23.

[5] Id.

[6] Id., p. 26.

[7] SDG&E response to DRA data response DRA-SDG&E-091-MZX, Qs. 2 & 3.

IV. DISCUSSION / ANALYSIS OF CUSTOMER CONTACT ACTIVITIES

A. Overview of SDG&E's Request

SDG&E proposes an increase of $1.238 million for CC activities.[8] CC activities include:

- Answering customer telephone calls;
- Responding to incoming email from customers;
- Responding to written customer correspondence regarding customer account activity;
- Following up on all CPUC telephone referrals and informal/formal CPUC complaints; and
- Responding to other customer account related inquiries.

DRA's discussion below is limited to areas where DRA disputes SDG&E's forecast.

B. DRA Approach

DRA recommends an increase of $382,000 for TY 2012, a reduction of $856,000 (69%) from SDG&E's proposed increase. DRA's disallowances are for the following expense categories: Customer Service Representatives (CSR), OpEx Analyst, and Software License and Maintenance Agreements.

1. Call Volume Estimate

SDG&E seeks to use a 5 year average of call volumes to estimate CSR expenses.[9] Table 16-3 below shows SDG&E's recorded calls per meter for the past 5 years. SDG&E's 5 year average methodology would result in an addition of 2.5 CSR FTEs. This forecast excludes customer growth, which will add an additional 2.3 CSR FTEs. DRA does not oppose the forecast increase in call volumes due to customer growth.

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[8] Exh. SDG&E-13, Vol. II, Ch. E, p. 28.

[9] Id.

However, DRA recommends adjusting the 5 year average to reflect OpEx benefits, which SDG&E excluded from its calculations.[10] SDG&E assumes that by 2012, 27% of customer contacts will be through self-service channels (i.e., automated phone or internet). An increase in self-service contacts should correspond to a decrease of calls requiring a customer-CSR interaction. SDG&E did not analyze this correlation, but DRA believes that it is conservative to forecast no increase in call volumes from 2009 (except due to customer growth). Thus, DRA recommends disallowing the $181,000 in expenses associated with the approximately 5% increase in call volumes SDG&E forecasts using a 5 year average.

Table 16-3
2005-2009 Recorded / TY 2012 Forecast
(in Thousands of 2009 Dollars)

Description	2005	2006	2007	2008	2009	2012
Calls Per Meter	1.91	1.86	1.74	1.79	1.77	1.81

Source: 2005-2009 data from Exh. SDG&E-13, Vol. II, Ch. E, p. 28.

2. Op Ex Analyst

SDG&E requests $106,000 for an Op Ex Analyst to "support and maintain the operational insight analytic software applications."[11] SDG&E did not provide any justification for why these software applications will require maintenance and why an additional FTE is required for any maintenance activities. Furthermore, as discussed below, DRA is recommending disallowing funds for proposed software license and maintenance agreements. SDG&E should not be allowed to increase IT-related analysts absent a complete justification for why software will fail or underperform without an analyst to maintain it. Quality software should not require human babysitters for optimal results.

[10] Id., p. 28.

[11] Id., p. 32.

3. Software License and Maintenance Agreements

SDG&E states that "An increase of approximately $569,000 is due to additional software license and maintenance agreements resulting from the CCC OpEx technology replacement."[12] SDG&E explains neither why these additional license and maintenance agreements are necessary nor where the benefits from the technology replacement will accrue. Absent a compelling business case that spells out the benefits from these license and maintenance agreements DRA sees no reason why ratepayers should underwrite their cost.

4. Branch Office and Authorized Payment Locations

SDG&E is requesting $1.9 million for Branch Offices and Authorized Payment Locations for TY 2012.[13] SDG&E's request is a $107,000 increase over 2009 expense. SDG&E claims this increase is due to the use of a three-year average methodology that is appropriate due to office reductions and consolidations that occurred in 2006-2007. DRA's recommendation is to maintain SDG&E's 2009 expense level of $1.793 million for TY 2012.

5. SCG Will Be Closing Branch Offices; SDG&E Has Also Experienced Reduced In-Person Customer Payment Transactions

As part of a presentation entitled "SoCalGas Branch Office Optimization Project 2011,"[14] SCG proposes filing an application to close Branch Offices in 2011. The reason for closing branch offices is a significant reduction in customer use. The same trend holds for SDG&E's Branch Offices, Pay Stations and Alternate Payment Locations. Since 2005, in-person payment transactions have fallen 25% from 1.633 million in 2005 to 1.22 million in 2009.[15] There is no reason to use a three-year average when in-person payment transactions are declining significantly. DRA's

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[12] Id.

[13] Id., p. 33.

[14] SoCalGas Branch Office Optimization Project 2011, Powerpoint, May 31, 2011. This presentation was provided to DRA in June 2011.

[15] Exh. SDG&E-13, Vol. II, Ch. F, p. 35.

recommendation is to use the 2009 expense level, which will allow for minor maintenance and ADA costs given expected further declines in in-person payments.

V. DISCUSSION / ANALYSIS OF CAPITAL PROJECTS

SDG&E's Capital request consists of $6.286 million in 2011 and $17.900 million in 2012 for a total of $24.186 million. DRA's recommendation is that SDG&E be authorized $1.551 million total. DRA recommends disallowing every proposed project except the CSR Online Customer Helpdesk Support Tools project. DRA's recommendations are displayed in Table 16-4 below.

Table 16-4
CSF&CC Capital Expenditures for 2010-2012
(In Thousands of Nominal Dollars)

Description	DRA Recommended			SDG&E Proposed[16]		
	2010	2011	2012	2010	2011	2012
CSR Online Customer Helpdesk Support Tools	$0	$0	$1,551	$0	$0	$1,551
SORT Upgrade Project	$0	$0	$0	$0	$1,304	$2,985
HAN DRCA Implementation	$0	$0	$0	$0	$1,856	$3,126
HAN Infrastructure	$0	$0	$0	$0	$1,770	$1,990
HAN Systems Integration	$0	$0	$0	$0	$1,356	$2,463
HAN Lab (Facilities)	$0	$0	$0	$0	$0	$700
DERMS	$0	$0	$0	$0	$0	$5,085
Total	$0	$0	$1,551	$0	$6,286	$17,900

A. SORT Upgrade Project

SDG&E's Service Order Routing Technology (SORT) is "SDG&E's major software application for scheduling, routing and dispatching orders to over 450 CSF personnel."[17] The SORT application was last updated in 2008 and runs on the

[16] Exh. SDG&E-13, Vol. I, Ch. D, p. 6.

[17] Exh. SDG&E-13, Vol. IV, Ch. D, p. 45.

Microsoft XP Operating System.[18] SDG&E states that the SORT vendor will not support the 2008 SORT update on the Windows 7 Operating System, which SDG&E recently began using. Thus, SDG&E wants to upgrade SORT to a version that will be supported with Windows 7.

DRA has two major objections to this request. First, that SDG&E upgraded SORT for use with an Operating System (Windows XP) that it was planning on jettisoning in order to install a new Operating System (Windows 7). Since SDG&E was already planning on upgrading to Windows 7 in 2008, it should have implemented a SORT upgrade that would be supported with Windows 7. Second, SDG&E has presented no evidence that its current SORT application is incompatible with Windows 7 or that necessary support cannot be obtained from other sources (e.g., IT specialists, listserves, etc.). SDG&E should not be allowed to use its Operating System upgrade as a reason to spend millions of dollars upgrading software unless that software is proven to be fallible when run on Windows 7.[19]

B. Home Area Network (HAN) Projects

In its introduction to these projects SDG&E states, "SDG&E is instituting a HAN system compatibility testing program and installing technology that will communicate with customer HAN enabled devices. HAN technology provides a platform for future demand response and energy efficiency programs and encourages conservation via behavior change through visibility and feedback."[20] SDG&E is currently implementing or planning the following HAN-related projects and initiatives:[21]

- Industry development and establishment of the SEP 2.0 protocol and standards;

[18] Id.

[19] Microsoft has already announced the next generation of Windows, Windows 8: http://www.microsoft.com/presspass/features/2011/jun11/06-01corporatenews.aspx

[20] Exh. SDG&E-13, Vol. VI, Ch. A, p. 49.

[21] Id., Ch. B, p. 51.

- Planning and developing requirements for a third party hosted HAN solution, including hardware additions, DRCA implementation and system integration activities;
- Implementation of IT environments for HAN software development, testing and quality control (including security);
- Exploration of retail distribution channels for HAN devices; and
- HAN pilots approved in the 2009-2011 SDG&E demand response application and customer assistance programs application.

DRA has multiple objections to ratepayer funding for SDG&E's HAN request. Fundamentally, SDG&E's request is premature, lacks tangible benefits, and is inappropriate given the developing competitive market for HAN products and services.

SDG&E's request is premature because the underlying technology is still undeveloped, smart appliances are not yet on the market, time-of-use or dynamic pricing is not yet widespread, benefits are speculative, and SDG&E's SmartGrid Deployment Plan (A.11-06-006) has not yet been evaluated. As SDG&E notes, one of its current projects is involvement in the industry development of the SEP 2.0 protocol. This protocol is the foundation for communication between the SmartMeter and the HAN, and it must be used industry-wide so that products and services can be tailored to work with it. SDG&E's other HAN efforts will not be able to function without SEP 2.0 in place and problem-free. Until SEP 2.0 has been tested SDG&E should not rush to develop other HAN initiatives. DRA would not oppose a separate HAN projects application should the underlying technology be functional before SDG&E’s subsequent GRC.

One of a HAN’s key functions will be to communicate between Smart Appliances and the Smart Meter. SDG&E gives the example of a smart refrigerator, which would have a HAN embedded chip that would allow the Smart Meter to send a signal that causes the refrigerator to cycle off during on-peak hours or an “event” or high price day.[22] While this demand-response functionality is part of the intangible

[22] Id., p. 50.

benefits associated with Advanced Metering Infrastructure (AMI), the widespread distribution of affordable smart appliances is still years away.[23] Once the underlying communication standards are completed and the Commission adopts time-of-use or dynamic pricing, manufacturers and consumers will have greater incentive to develop and purchase increasing numbers of smart appliances. Manufacturers will be assured of uniform platforms for their appliances to communicate with the Smart Meter and consumers will be able to see the economic benefits of a smart appliance purchase. At that time, the HAN infrastructure to allow for appliance-meter communication should be deployed. Until then, ratepayers are at risk of underwriting a HAN infrastructure that could need significant modifications down the line.

Ratepayers are at risk of investing in HAN technologies that will not produce demonstrable benefits. DRA's May 2011 "Time Variant Pricing for Small Electric Consumers" White Paper demonstrates that with time-of-use rates and basic technology (such as programmable thermostats) significant demand reduction is possible.[24] With time-of-use rates and access to Smart Meter data, customers can take steps to reduce energy consumption and see a significantly reduced electric bill by reducing use of on-peak air conditioning, doing laundry, running dishwashers, and charging electric vehicles off-peak. In fact, the White Paper shows that time-of-use rates would lead to greater net consumption reduction than dynamic pricing and additional advanced technology designed to reduce peak demand.[25] Furthermore, the White Paper shows that the electricity supply curve has shifted and "the conditions of episodic scarcity and high wholesale prices that motivated dynamic pricing no longer exist in California."[26]

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[23] See http://www.grist.org/article/2011-01-31-smart-appliances-are-coming-some-day (accessed June 30, 2011) which explains that the limiting factors for smart appliance roll outs are HAN communication standards and time-differentiated pricing.

[24] Levin, Robert, Time Variant Pricing for California's Small Electric Consumers, May 23, 2011.

[25] Id., pp. 29-36.

[26] Id., p. 21.

DRA recommends that dynamic pricing be on a voluntary opt-in basis. Without dynamic pricing, it is unlikely that SDG&E's proposed HAN projects would be cost-effective. While adding smart appliances connected to the Smart Meter via a HAN allows for utility or third-party controlled demand response measures, such as the refrigerator cycling example cited above, the benefits of those measures do not likely outweigh the additional cost at this time. SDG&E did not present a business case to show how the benefits from HAN infrastructure development will exceed the costs of deploying it. The Commission should not approve additional AMI technology deployment without well developed cost-benefit analyses. As SDG&E implements its Smart Grid deployment plan, it is incumbent upon the utility to make well grounded assumptions about potential benefits so the Commission can make determinations about which elements and technologies of Smart Grid deserve additional ratepayer dollars.

SDG&E's Smart Grid deployment plan envisions $3.6 billion in cumulative costs from 2006 through 2020.[27] In his letter introducing the deployment plan, SDG&E President and COO Michael R. Niggli states, "There is one observation that is crystal clear: Our customers are driving our deployment plan."[28] While customer actions such as purchasing plug-in electric vehicles may necessitate utility-side investments in grid infrastructure, residential customer engagement in smart technology for demand management has yet to be observed. In fact, Google is ending its "Power Meter" service for SDG&E customers due to low participation.[29] DRA intends to scrutinize the utilities' deployment plans to see whether they have the potential to provide net benefits to ratepayers. The deployment plan, however, is only the roadmap to a "smarter" grid which results in less energy use. Each grid component (e.g., HAN) must be cost-effective relative to other strategies to achieve

[27] A.11-06-006, p. 8. SDG&E states that 75% of this amount has already been spent or is part of current applications, such as this GRC.

[28] A.11-06-006, Letter from Michael R. Niggli, SDG&E, to Michael Peevey, CPUC, June 6, 2011, p. 1.

[29] See http://googleblog.blogspot.com/2011/06/update-on-google-health-and-google.html, accessed July 1, 2011.

customer demand management. Not every smart grid-related investment will be necessary to achieve the overall demand reduction and efficiency benefits that form a key part of the Energy Action Plan and California's AB 32 greenhouse gas reduction goals.

Some of the key demand management investments will come from third parties operating in a competitive market. Third parties are involved in HAN technology development, smart appliance manufacturing, and information management technology development. Ratepayers have the choice of whether to purchase these technologies; no such choice exists for SDG&E investments. One of SDG&E's projects is "exploration of retail distribution channels for HAN devices."[30] This is an example of a role for the competitive market, not a regulated utility. If HAN devices are essential to the realization of benefits from smart appliances, then the HAN and smart appliance industries will ensure that retail distribution (as well as advertising) occurs.

SDG&E and ratepayers will benefit from a HAN development plan that is timed to account for industry advances, market development, and clear state and Federal guidance on privacy and security of customer data.[31] DRA recommends that the Commission deny SDG&E's HAN capital investment requests until the Smart Grid world has taken more shape, and there is a demonstrable benefit from this technology.

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[30] Exh. SDG&E-13, Vol. VI, Ch. A, p. 51.

[31] Privacy and security measures are part of the Commission's Smart Grid Rulemaking, R.08-12-009.