
PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



December 3, 2021

Daniel Skopec
Senior Vice President – State Government Affairs & Chief Risk Officer
SAN DIEGO GAS & ELECTRIC COMPANY and SOUTHERN CALIFORNIA GAS COMPANY
8330 Century Park Court, CP33C
San Diego, CA 92123-1530
SENT VIA EMAIL: DSKopec@semprautilities.com

SUBJECT:**San Diego Gas & Electric Company and Southern California Gas Company 2020 Risk Spending Accountability Report Review**

Dear Mr. Skopec:

Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) (combined as Sempra or Utility) submitted their 2020 Interim Risk Spending Accountability Report (RSAR) to the California Public Utilities Commission (CPUC) on March 31, 2021. Energy Division completed a review of this report and provides Sempra with recommendations for its 2021 report. The attachments provide background and details of staff's analysis on spending accountability and spending variances.

CONCLUSIONS

Sempra submitted its first RSAR on March 31, 2020¹, and this current 2020 filing is its second official RSAR requiring compliance with the guidance in CPUC's Safety Model Assessment Proceeding (S-MAP) Decision, Decision (D.) 19-04-020². Within the RSAR, the Utility presented imputed adopted, actual spending, and units for its reportable general rate case (GRC) programs related to safety, reliability and maintenance.

Program Selection

Sempra correctly applied the selection criteria for its GRC programs found in the S-MAP Decision for programs related to safety, maintenance and reliability (SMR). The Utility provided work unit information for programs in which the forecasted cost was derived from unit costs. Sempra applied the selection criteria for its GRC programs according to D.19-04-020 and included the information required for programs selected for an explanation. Sempra provided reference and regulatory account information affecting authorized spending.

¹ D.19-04-020 p. 46

² in the combined proceeding A.15-05-002, 003, 004, and 005.

Variance

Overall, Sempra's 2020 RSAR showed a 29 percent (\$915 million) overspend across SDG&E and SoCalGas with the largest variance of 61 percent (overspend) in SDG&E capital programs as shown in Table 1. SoCalGas capital program had an overspend of 43 percent.

Table 1. 2020 Total RSAR Spending for SDG&E and SoCalGas.

	2020 Actuals	2020 Imputed Authorized	Variance	
	(\$000)	(\$000)	(\$000)	% Variance
SDG&E TOTAL O&M	664,303	544,283	120,020	22%
SDG&E TOTAL Capital	1,048,216	650,072	398,144	61%
SoCalGas TOTAL O&M	910,921	952,511	(41,590)	-4%
SoCalGas TOTAL Capital	1,469,169	1,030,806	438,363	43%
TOTAL	4,092,609	3,177,672	914,937	29%

The largest overspend by line of business was in SoCalGas's Gas Engineering capital at \$248 million (182 percent) followed by SDG&E's Electric Distribution at \$228 million (57 percent). The only significant underspend at the line of business level occurred in SoCalGas's Pipeline Safety Enhancement Program (PSEP) in both operation and maintenance (O&M) and capital. SoCalGas's PSEP O&M underspend was \$40.4 million (-65 percent) and PSEP capital underspend was \$88.6 million (-50 percent). The PSEP underspending compounds the \$51.7 million underspend from 2019.

Of the 759 programs evaluated, 319 exceeded the variance threshold³. Of the 319 programs exceeding the variance threshold, 52 percent had a negative variance (underspending) despite the net overspend from both utilities.

Comments

D.19-04-020 provides for a method for parties to comment on the report. No party provided comments.

RECOMMENDATIONS

Sempra provided explanations and descriptions for the programs or projects in the report but should continue to improve on their efforts to include authorized work units and lists of activities when work units are not available, as recommended in previous RSAR reviews. More detailed explanations and descriptions would facilitate a better understanding of the reported variances.

³ Variance threshold that triggers and explanation varies between type of expense and units: O&M Variance > \$5 million or >\$2.5 million and 20 percent; Capital Variance > \$10 million or >\$5 million and 20 percent; or Unit Variance between adopted units and actual units > 20 percent. Gas related programs for SDG&E have a different threshold of Variance: > \$2.5 million or >\$0.5 million and 20 percent; Capital Variance > \$5 million or >\$1 million and 20 percent

Staff recommend that variance explanations:

1. identify all mandates;
2. enumerate assumptions used to develop forecasts;
3. provide enough information to allow verification of programs with no incurred costs;
4. favor more specific variance explanations (e.g., social distancing versus COVID-19);
5. detail costs shifted between programs and note the source (regulations or other projects);
6. compare shifted costs to original allocated budget;
7. provide detailed explanations for why each project does not have units; and
8. provide sufficient detailed explanations sufficient to verify completeness of work within the program.

Sempra should refer to the reporting framework in D.19-04-020, Ordering Paragraph 10 in preparing and submitting future RSARs. Sempra should also follow recommendations and future decision related to the RSAR that comes from the Order Instituting Rulemaking to Further Develop a Risk-Based Decision-Making Framework for Electric and Gas Utilities R.20-07-013 (S-MAP 2). RSAR stakeholders have been encouraged to participate in track 3 of the S-MAP 2 proceedings which was specifically created to provide clarity to the RSAR.

Sempra should file and serve their 2021 RSAR in the most recent the proceeding in which costs are imputed, (A.17-10-007/A.17-10-008), and the 2021 Risk Assessment and Mitigation Phase (RAMP, A.21-05-011 and A.21-05-014) with copies provided to the CPUC's Safety Policy Division, Safety and Enforcement Division, and the Public Advocates Office. Sempra should also provide the 2021 RSAR to the ED Tariff Unit by emailing the report to edtariffunit@cpuc.ca.gov⁴.

If you have any questions or comments, please contact Jordan Smith at jordan.smith@cpuc.ca.gov or Andrew Ngo at andrew.ngo@cpuc.ca.gov.

Sincerely,

Handwritten signature of Edward Randolph in black ink, followed by the word "FOR" in a bold, sans-serif font.

Edward Randolph
Deputy Executive Director for Energy and Climate Policy/
Director Energy Division

Enclosure: ATTACHMENT A - Staff Risk Spending Accountability Review
ATTACHMENT B – Sempra RSAR Programs Ranked by Spending Variance

cc: Jamie York, Regulatory Case Manager, Sempra Utilities
Kelly Hart, GRC Program Manager, Sempra Utilities
Dorothy Duda, Energy Division Branch Manager Market Structure, Costs and Natural Gas Branch
Elizabeth La Cour, Energy Division Supervisor, Gas Costs Section
Franz Cheng, Supervisor, Energy Division Electric Costs Section
Service Lists for A.17-10-007, A.17-10-008, and consolidated A.15.-05-002, 003, 004, 005.

⁴ see D.19-04-020 page 47

ATTACHMENT A:

Staff Risk Spending Accountability Review

The California Public Utilities Commission’s (CPUC) Energy Division (ED) reviewed the 2020 Risk Spending Accountability Report (RSAR) of the Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) (combined as Sempra or Utility) filed on March 30, 2021. ED conducted a review to provide the CPUC and parties to the GRC with information that may be useful in the GRC and other proceedings and “alert the Commission and other parties about a utility’s risk mitigation activities and spending.”⁵

BACKGROUND

In December 2014, the CPUC issued Decision (D.)14-12-025, which directed the investor-owned utilities under its jurisdiction to prepare annual reports comparing authorized and actual spending on risk mitigation projects and explain any discrepancies. Upon submission, ED Staff would review the reports and identify any spending patterns of concern with respect to the provision of safe and reliable gas and electric service.

In April 2019, the CPUC issued D.19-04-020, Phase Two Decision Adopting Risk Spending Accountability Report Requirements and Safety Performance Metrics for Investor-Owned Utilities and Adopting a Safety Model Approach for Small and Multi-Jurisdictional Utilities (Phase Two Decision) and provided the utilities with specific direction in complying with the reporting requirements of the new risk-based decision-making framework.

This 2020 RSAR addressed the first attrition year of the 2019 GRC cycle authorized in D.19-09-051⁶ in the General Rate Case (GRC) Application (A.)17-10-007 and A.17-10-008. Sempra’s 2020 RSAR follows the reporting framework set forth in D.19-04-020.

REPORTING REQUIREMENTS

D.19-04-020 directed utilities to provide descriptions and an explanation of any variance based upon set criteria.⁷ This included identifying all risk mitigation and maintenance⁸ programs, providing a “comparison of authorized versus actual spending above an appropriate Commission-determined dollar cut-off and a utility narrative explanation of any significant differences between the two.” Finally, the utilities are required to “group programs along general business lines” or categories.⁹

REPORT NOTICING AND PARTY COMMENTS

Sempra submitted the RSAR report to the service list for five proceedings: their Test Year (TY) 2019 GRC A.17-10-007 and A.17-10-008, previous RAMPS (consolidated A.15.-05-002, 003, 004, 005). The Sempra RSAR is available on the Energy Division RSAR webpage.¹⁰ The review

⁵ D.19-04-020 p47

⁶ <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M316/K704/316704666.PDF>

⁷ D.19-04-020 p. 43, Variance Criteria

⁸ In compliance with redirected spending requirements P.U. Code §591 D.19-04-020 (p37).

⁹ D.19-04-020 pp 34-37; O.P. 10 and Attachment 2 for the full requirements. See also D.14-12-025 p44.

¹⁰ <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/risk-spending-accountability-reports/sdgc-and-social-2020-utility-report-rsar.pdf>

schedule for RSARs was served on the latest Sempra General Rate Case proceedings and the Rulemaking to Further Develop a Risk-Based Decision-Making Framework for Electric and Gas Utilities (SMAP 2) R.20-07-013 on April 8, 2021.

The Schedule requested comments by October 17, 2021. No parties served comments.

STAFF ANALYSIS

Sempra imputed authorized costs based on the GRC authorized cost and escalation for the first attrition year on reportable programs.¹¹ Sempra identified each GRC spending program related to safety, reliability and maintenance. SDG&E identified 216 capital and 220 operation and maintenance (O&M) expense programs meeting the criteria of RSAR-related programs. SoCalGas identified 96 capital programs and 227 O&M programs.

Sempra complied with D.19-04-020, Ordering Paragraph 10, which requires utilities to describe how each project relates to safety, reliability and maintenance.¹²

Lines of Business

Table A-1 presents RSAR-related programs along major lines of business and divided into O&M expense and capital programs. The variances of recorded costs to authorized costs show a general trend of overspending, with exception of SoCalGas O&M. SoCalGas O&M shows an average underspend of -4 percent, but individual lines of business are significantly lower. Pipeline Safety Enhancement Program (PSEP) and Gas System Integrity show an underspend of -65 percent (\$40.4 million) and -70 percent (\$14.9 million), respectively. SoCalGas's PSEP capital program also has a \$88.6 million underspend (-50 percent). Combined with a \$51.7 million 2019 underspend, the total PSEP underspending in this GRC cycle thus far is \$129 million. SoCalGas explains the PSEP O&M underspend is a result of a re-organization, which has moved some expenses to the company overhead or into individual projects. The Underspend on capital is from deferred projects, but significant hydrotests are underway in 2021, including a 64-mile Blythe to Cactus City. SoCalGas states it is on track to complete the projects this GRC cycle, and the 2021 RSAR should reflect significant progress.

SDG&E has the largest overspend of \$228.2 million (57 percent) in electric distribution capital followed by \$132.0 million (80 percent) in electric distribution O&M, as shown in Table A-1. The majority of O&M overspend (\$111.1 million¹³) is from the Wildfire Mitigation Program balancing account. The next largest overspend program is the vegetation management with an overspend of \$43.4 million. The increased spending from Wildfire Mitigation appears to be the significant difference in the spending of SDG&E versus SoCalGas.

¹¹ D.19-04-020, p. 35 and 37; Program Definitions; section 5.1.1.

¹² D.19-04-020, pp. 36-37

¹³ See Sempra 2020 RSAR p. A-146 for WMP balance account programs that make up the \$111.1 million.

Table A-1. 2020 Authorized and Recorded Costs

GRC General Line of Business	2020 Actuals (\$ 000)	2020 Imputed Authorized (\$ 000)	\$ Variance (\$ 000)	% Variance
SoCalGas	2,380,090	1,983,317	396,773	20%
Gas Distribution (incl Gas Control)	162,822	168,821	(5,998)	-4%
Gas Engineering (incl TIMP/DIMP)	174,670	127,121	47,549	37%
Gas Transmission (incl GT, MP, GSI)	55,589	75,030	(19,442)	-26%
Underground Storage	61,390	66,065	(4,675)	-7%
PSEP	21,824	62,182	(40,358)	-65%
Gas Acquisition	4,909	4,725	184	4%
Sub-Total Gas	481,204	503,943	(22,739)	-5%
Sub-Total Other	429,717	448,567	(18,850)	-4%
SoCalGas TOTAL O&M	910,921	952,511	(41,590)	-4%
Gas Distribution	378,495	326,581	51,914	16%
Gas Engineering	383,900	135,981	247,920	182%
Gas Transmission	240,292	123,927	116,365	94%
Underground Storage	197,770	145,122	52,648	36%
PSEP	88,397	176,955	(88,557)	-50%
Sub-Total Gas	1,288,854	908,565	380,289	42%
Sub-Total Other	180,315	122,241	58,074	48%
SoCalGas TOTAL Capital	1,469,169	1,030,806	438,363	43%
SDG&E	1,712,519	1,194,355	518,164	43%
Electric & Fuel Procurement	7,525	9,597	(2,071)	-22%
Electric Distribution	296,348	164,304	132,044	80%
Electric Generation & SONGS	33,490	42,156	(8,666)	-21%
Sub-Total Electric	337,363	216,057	121,306	56%
Gas Distribution	36,114	32,604	3,510	11%
Gas Engineering (incl TIMP/DIMP)	9,792	12,069	(2,277)	-19%
Gas Transmission (incl Gas Sys Integ)	5,281	7,360	(2,079)	-28%
Sub-Total Gas	51,187	52,032	(846)	-2%
Sub-Total Other	275,753	276,194	(441)	0%
SDG&E TOTAL O&M	664,303	544,283	120,020	22%
Electric Distribution	625,218	397,055	228,163	57%
Electric Generation	18,521	15,463	3,058	20%
Sub-Total Electric	643,739	412,519	231,221	56%
Gas Distribution	90,284	65,154	25,130	39%
Gas Engineering (incl TIMP/DIMP)	46,764	27,842	18,922	68%
Gas Transmission	14,928	10,440	4,488	43%
Sub-Total Gas	151,976	103,436	48,539	47%
Sub-Total Other	252,501	134,117	118,384	88%
SDG&E TOTAL Capital	1,048,216	650,072	398,144	61%
TOTAL SoCalGas and SDG&E	4,092,609	3,177,672	914,937	29%

Tables A-2 and A-3, below, shows the number of individual programs per major line of business used by Sempra along with the variances per major business line. SDG&E has a larger safety, maintenance and reliability spend (\$2.0 billion versus \$1.2 billion, see [Table A-1](#)) and a larger

percentage of programs with variances. Despite the smaller total spend and smaller percentage of programs with variances, SDG&E has a larger total dollar variance.

Table A-2 SDG&E Programs by Major Business Lines and Percentage of Programs with Variances.

Major Business Line	Number of Programs	Programs with Variance ^a	Percent Variance
SDG&E	436	162	37%
CAPITAL	216	77	36%
Balanced Program Direct Capital Expenses	51	29	57%
Electric Distribution	118	29	25%
Electric Generation	8	0	0%
Gas Distribution	8	6	75%
Gas Engineering	4	0	0%
Gas Transmission	9	6	67%
Information Technology & Cyber Security	7	3	43%
Support Services	11	4	36%
O&M	220	85	39%
Administrative & General	10	2	20%
Balanced Program Direct O&M Expenses	16	9	56%
Customer Services	24	9	38%
Electric & Fuel Procurement	3	1	33%
Electric Distribution	44	12	27%
Electric Generation	9	6	67%
Gas Distribution	28	7	25%
Gas System Integrity	5	4	80%
Gas Transmission	8	4	50%
Human Resources Dept, Safety, LTD & WC	14	0	0%
Information Technology & Cyber Security	47	26	55%
Support Services	12	5	42%

- a. O&M Variance > \$5 million or >\$2.5 million and 20 percent;
 Capital Variance > \$10 million or >\$5 million and 20 percent;
 Unit Variance between adopted units and actual units > 20 percent.
 Gas related programs for SDG&E have a different threshold of
 Variance: > \$2.5 million or >\$0.5 million and 20 percent;
 Capital Variance > \$5 million or >\$1 million and 20 percent

Table A-3 SoCalGas Programs by Major Business Lines and Percentage of Programs with Variances.

Major Business Line	Number of Programs	Programs with Variance ^a	Percent Variance
SoCalGas	323	157	49%
CAPITAL	96	57	59%
Advanced Meter	1	1	100%
Balanced Programs Direct Capital Expenses	8	6	75%
Gas Distribution	32	16	50%
Gas Engineering	3	2	67%
Gas Transmission	19	10	53%
Information Technology & Cyber Security	8	5	63%
Major Projects	2	1	50%
Pipeline Safety Enhancement Program	4	4	100%
Support Services	5	2	40%
Underground Storage	14	10	71%
O&M	227	100	44%
Gas Control & System Operations	13	5	38%
Administrative & General	10	3	30%
Balanced Program Direct O&M Expenses	10	4	40%
Customer Services	37	20	54%
Gas Acquisition	1	0	0%
Gas Distribution	31	8	26%
Gas Engineering	18	3	17%
Gas Major Projects	4	4	100%
Gas System Integrity	36	22	61%
Gas Transmission	14	7	50%
Human Resources Dept, Safety, LTD & WC	7	5	71%
Information Technology & Cyber Security	21	10	48%
Pipeline Safety Enhancement Plan	2	2	100%
Support Services	17	5	29%
Underground Storage	6	2	33%

a. O&M Variance > \$5 million or >\$2.5 million and 20 percent;
 Capital Variance > \$10 million or >\$5 million and 20 percent; and
 Unit Variance between adopted units and actual units > 20 percent.

Balancing Accounts

ED staff found the Report met requirements for cost recovery of actual expenditures for balancing or memorandum account related expenditures.¹⁴ Table A-4 shows the 2020 actuals for the balancing or memorandum accounts totaled nearly \$216 million.

¹⁴ D.19-04-020 p 37 and OP 10 p 66

Table A-4. 2020 Memorandum and Balancing Accounts

	O&M Expense (\$000)	Capital (\$000)	Authorized (\$000)	Variance (\$000)
SDG&E	336,592	12,973	218,018	131,547
TIMPBA ^b Details	10,588	470	10,728	330
Tree Trimming Balancing Account	68,164		24,808	43,356
Overhead Pools Balancing Account	129,776		113,961	15,815
Wildfire Mitigation Plan Memorandum Account	128,064	12,503	68,521	72,046
SoCalGas	188,811	48,538	152,533	84,816
DIMPBA ^a	46,683	18,857	61,544	3,996
TIMPBA ^b	104,648	10,751	53,096	62,303
SIMPBA ^c	17,554	4,736	22,092	198
RD&D ^d	16,043		15801	242
Gas Regulatory Accounts – L235MA	3,883	5868	0	9,751
MROWMA ^e		8326		8,326
TOTAL	525,403	61,511	370,551	216,363

- a. Distribution Integrity Management Program Balancing Account
- b. Transmission Integrity Management Program Balancing Account
- c. Storage Integrity Management Program Balancing Account
- d. Research Development and Demonstration Expense Account
- e. Morongo Rights of Way Memorandum Account, to be addressed in next GRC

Wildfire related activities are recorded in in the Wildfire Mitigation Plan Memorandum Account which constitutes a third of the overspend in the memorandum and balancing accounts. Together Tree Trimming and Wildfire Mitigation Plan accounts make up half the memorandum and balance account overspend. The Tree Trimming Balancing account is under review as part of A.20-07-003, and the MROWMA will be addressed in in the next GRC, and the rest are recovered through an advice letter¹⁵.

Canceled, Deferred, or Expanded Programs

Canceled or Deferred Programs

Sempra complied with requirements¹⁶ to provide information on canceled, deferred, or expanded programs either via their variance explanations, but did not explicitly define each variance by those categories. Of the 759 program variances, 29 variances reference being deferred due to COVID-19 related delays.

Ninety-two programs appeared to be canceled or deferred because they had an imputed authorized amount, but zero actual spending (a negative 100 percent variance). Of these programs, only 12 were included as deferred¹⁷ and another two were a function of moving the budget to another program. The most common explanation for the negative 100 percent variance was the automatic calculation of imputed costs for attrition years rather than anticipated project costs. An alternative method for

¹⁵ GSRBA was transferred to the Base Revenue Requirement Balancing Account via advice letter 4197-E in December 2020.

¹⁶ D.19-02-040 O.P. 11(a)

¹⁷ Sempra 202 RSAR Table on p. B-151 to B-156.

calculating attrition years costs in the GRC or defining the projects as “completed” could prevent the over allocation of short-term projects and the resulting underspend calculated in the RSAR.

For programs like the SoCalGas’s PSEP O&M with consecutive years of significant underspending, additional discussion on how the utility plans to achieve the safety, reliability and maintenance goals associated with the program within a reasonable time frame should be discussed in the next RSAR.

Expanded Programs

In contrast with canceled or deferred projects, which result in underspending (negative variance), utilities are also required to report expanded programming, which often has resulted in overspending (positive variance). Moreover, if no costs are imputed for the project, it will have a variance of 100 percent. This type of programming, often called “emergent” activity, is not always well-defined. When the emergent work is the result of a low forecast – new, in-scope, authorized work – or new state or federal mandates, the justification should explain the scope expansion or describe the specific mandate.

Pandemic Impacts

Staff found that COVID-19 related explanations generally conformed to canceled or deferred programming requirements as well as state and federal guidance.¹⁸ Variance explanations included higher costs due to equipment rentals or permitting, and generally linked COVID-19 precautions to construction delays or permits. These projects often resulted in higher unit costs even though the program was underspent.

Staff found 29 of the 386 underspent programs had variance explanations relating to the COVID-19 pandemic. While ED staff found pandemic-related explanations were sufficient to meet RSAR canceled or deferred programming requirements, more details on how the pandemic impacted the program would provide a better understanding of the cost variance and if the program is on budget.

Program Work Units

Sempra provided work units for all programs where the units were defined in the 2019 GRC and expanded some other programs to include work units. Sempra also claims that some programs consisting of multiple unique projects cannot be accurately divided into unit of work, and in some cases, Sempra tracked two separate work units. ED staff suggest that even though the variability of unique projects within a program may be significant, unitizing the cost would provide useful benchmarking. D.19-040-002 requires the IOU must include general explanation for the lack of work units.¹⁹ Also, when two work units are tracked it would be beneficial to split the cost allocation across the different activities. As intervenors in the S-MAP proceeding have indicated, context is necessary to understand spending. When no work units are available, a description of large cost items should be included and progress on those items. Sempra should also provide an explanation of how much work was accomplished and whether the amount of work done was sufficient to accomplish the company’s safety, reliability or maintenance goals.

¹⁸ Federal COVID guidance may be found at <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html> and State guidance may be found at <https://www.dir.ca.gov/dosh/coronavirus/>

¹⁹ D.19-04-020 p39

ANALYSIS OF SELECTED PROGRAMS

ED requested additional information pertaining to pipelines, cathodic protection, gas storage and others. Requests generally focused on clarifying variance explanations.

ED staff made recommendations, such as listing government mandates, providing more clarity for activities with no imputed work units and explaining the degree to which individual activities contributed to the variances for safety, reliability, or maintenance activities. The results of these inquiries may be found in the sections below.

SoCalGas Gas Expense

Gas Distribution – Field Support

RAMP Activity: Maintenance – Pipeline observation “Standby” (From Field Support)

This program was 100 percent underspent with an imputed cost of \$3.7 million. This program also reported a 100 percent unit variance. SoCalGas explained that the variances were due to recording for the costs in Locate and Mark, QA Job Observations Field Ride and Job Monitoring activity. However, that Field Ride and Job Monitoring activity is only \$1.1 million overspent while this Pipeline observation “Standby” activity was underspent by \$3.7 million. ED staff inquired about the overall \$2.6 million in underspending.

SoCalGas explained that that an error was made with how the RAMP activities were presented in the Test Year 2019 GRC workpapers. These activities are not included as part of the expenses within Field Support workpaper and are instead recorded as part of the Locate and Mark workpaper. In addition, the reason the variance of \$3.7 million is not offset by the variance of \$1.1 million is because the assumptions used to input the RAMP information for the Field Support workpaper included both a Gas Distribution and a Gas Transmission estimate whereas the actuals and imputed authorized on the Field Ride and Job Monitoring activity only include the Gas Distribution component.

Gas Distribution – Cathodic Protection

RAMP Activity: Non-RAMP

The Non-RAMP activities in the Cathodic Protection (CP) program were 100 percent underspent with an imputed cost of \$2.0 million. This activity also reported a 100 percent unit variance. SoCalGas explained that the variances were inherently non-RAMP activities. However, in the 2019 there was \$1.6 million spent on this activity.

SoCalGas explained that in preparation for the 2020 RSAR, all CP activities were determined to be RAMP-related and there should be no Non-RAMP line item. The CP workpaper will still be requested in the TY2024 GRC in its entirety. However, there will no longer be an amount attributable to Non-RAMP activities since 100% of this CP workpaper is associated with mitigating risks related to corrosion of steel assets.

Gas Distribution – Operations and Management

RAMP Activity: Policy, Procedures, Standards and Environmental and Safety Compliance Management Program (ESCMP)

This program was 100 percent underspent with an imputed cost of \$1.0 million, a 100 percent variance. This program also reported a 100 percent unit variance. SoCalGas explained that the

variances were due to recording the costs in other witness areas. ED staff is looking for clarity on spending that has been reallocated into other unnamed activities. For example, SoCalGas has explained that the variance for the Field Support activity, as discussed above, was due to costs being recorded in the QA Job Observations Field Ride and Job Monitoring activity.

SoCalGas added that similar to the Field Support program, these activities are not included as part of the expenses within the Gas Distribution Operations and Management workpaper. The witness areas that perform this RAMP activity and who may or may not have separately identified them include, but are not limited to, Gas System Integrity, Gas Engineering, Transmission Integrity Management Program and Distribution Integrity Management Program.

Gas Major Projects – Major Projects Management & Outreach

RAMP Activity: Real-time pressure data and providing remote control to high priority distribution sites

Spending for this program was \$46 thousand compared to an imputed cost of \$1.6 million, a 97 percent variance. This program also reported a 100 percent unit variance. SoCalGas explained that the variances were due to unanticipated delays in the capital field installations and hiring of staff to manage the O&M component of the Distribution Operations Control Center (DOCC) field and control room activities.

SoCalGas added that although the COVID-19 pandemic affected their ability to collaborate in person, the delays were primarily attributed to increased time spent on project scoping, additional solution assessments and the project plan development process. The project development team has expanded in 2021 and planning and construction activities for initial real-time monitoring and control sites are underway.

Pipeline Safety Enhancement Program (PSEP)

RAMP Activity: Approved PSEP program to test or replace High Consequence Area High Pressure pipelines

Spending for this program was \$20.4 million compared to an imputed cost of \$57.8 million, a 65 percent variance. This program also reported a negative 81 percent unit variance with a unit variance of negative 85 miles. ED staff reached out to SoCalGas for a detailed breakdown of the PSEP pipeline projects.

SoCalGas explained that the variances were due to deferred projects. Two hydrotest projects, Line 235 W Section 3 and Line 2000 Section E, were not completed in 2020 as planned in the SoCalGas/SDG&E 2019 GRC application. These projects, as well as Line 2000 Blythe to Cactus City, were deferred from 2020 to future years to maintain gas capacity in support of system reliability. Additionally, Line 2000 Chino Hills, which was originally forecasted as a 2021 project, was accelerated to 2019/2020, but was ultimately not completed in either of these years due to system reliability needs to maintain gas capacity. The table below displays details of the mileage presented in the 2020 report²⁰:

²⁰ See SDGE and SCG Response to ED DR02_1-12

Project	2020 Actual Units (miles)	2020 Imputed Authorized Units (miles)	Notes
L235W Section 3	0	26.88	Deferred
L2000 Section E	0	8.88	Deferred
L2000 Blythe to Cactus City ²¹	0	64.65	Deferred
L407	4.26	3.97	Completed as planned
L1011	1.77	0	Accelerated
L2001W Section C	13.36	0	Accelerated
L2005 ²²	0.31	0	Accelerated
L2000 Chino Hills	0	0	Deferred
Total	19.7	104.39	

SoCalGas Gas Capital

Gas Engineering – Land Rights and Buildings

RAMP Activity: Non-RAMP

Spending for this program was \$102.0 million compared to an imputed cost of \$3.6 million, a 2731 percent variance. This program did not report unit variances due to variety of work in this category that makes it infeasible to identify a single unit of measurement.

SoCalGas explained that this workpaper provides capital funding for purchases of land or land rights for new Transmission pipelines and for existing rights-of-way that have expired per contractual obligation and need to be renegotiated. The variance is associated with renewals of Rights of Ways for two gas transmission pipelines, which details are confidential and protected materials pursuant to P.U. Code Section 583, GO 66-D, and D.17-09-023.

Gas Transmission – Gas Transmission Cathodic Protection

RAMP Activity: Requirements for corrosion control

Spending for this program was \$12.3 million compared to an imputed cost of \$1.2 million, a 961 percent variance. This program did not report unit variances due to a variety of work that makes it infeasible to identify a single unit of measurement. ED staff inquired about big ticket costs and units that contributed to the overspending.

SoCalGas explained that the activities tracked within this category are for projects associated with the installation of cathodic protection equipment used to preserve transmission lines, such as deep well anodes, rectifiers, and cathodic protection engines. The actual costs for this activity in 2020 are associated with 93 projects. Typical expenditures include replacement of surface anode beds, deep

²¹ This project is currently under construction and is anticipated to be completed in Q4 2021.

²² This project was not filed in the 2019 GRC but was authorized to be accelerated into the 2019 GRC cycle in Advice Letter 5617.

well anodes and/or rectifier systems, installation of new cathodic protection stations, and applying cathodic protection to existing steel pipelines. The costs for projects associated with cathodic protection are as follows²³:

CP Engine: \$3,996,261

Deep Well Anode: \$5,245,913

Miscellaneous: \$439,415

ED staff recommends that Sempra provide costs and units information on significant items on future RSAR reports if they are unable to impute the units due to variety of work.

Gas Transmission – Gas Transmission Replacement Pipelines

RAMP Activity: Gas Transmission

Spending for this program was \$29.3 million compared to an imputed cost of \$4.1 million, a 609 percent variance. This program did not report unit variances due to diversity of work that makes it infeasible to identify a single unit of measurement. ED staff requested for costs and units for big ticket items that contributed to the overspending.

SoCalGas explained that the activities tracked within this category are for projects associated with the replacement of pipelines to address conditions that could affect the integrity of the pipeline, such as leaks, erosion, changes to class location of the pipeline, and replacements due to franchise work or other events. The actual costs for this activity in 2020 are associated with 152 projects. The costs for projects associated with pipeline projects are as follows²⁴:

Pipeline Replacement: \$6,572,290

Pipeline Relocation: \$773,886

Pipeline Exposure: \$12,643,867

Leak Repair: \$9,662,003

Class Location: \$334,197

Miscellaneous: \$2,654,948

ED staff recommends that Sempra provide costs and units information on significant items on future RSAR reports if they are not able to impute the units due to a variety of work.

Gas Transmission – Gas Transmission Compressor Stations (BC 335)

RAMP Activity: Non-RAMP

Spending for this program was \$113.3 million compared to an imputed cost of \$40.0 million, a 184 percent variance. This program did not report unit variances due to work variety that makes it

²³ See SDGE and SCG Response to ED DR02_1-12

²⁴ See SDGE and SCG Response to ED DR02_1-12

infeasible to identify a single unit of measurement. Since the majority of construction activities occurred in 2020 and milestones that were delayed in 2019 were completed in 2020, ED staff has requested the estimated percent completion of this project.

SoCalGas explained that the Blythe Compressor Modernization Project scope of work has been divided into two workstreams, referred to as Plant 2 and Plant 4. Plant 4 scope involves installation of two new turbine compressors, facility electric generation equipment, and associated infrastructure to support the new plant. Plant 2 scope includes the rebuild of five existing Clark engine-driven compressors and retrofit with advanced emissions control technology and associated appurtenances. Currently, the Plant 4 scope is approximately 99% complete and the assets were placed into service on Oct 30, 2021. Plant 2 scope is approximately 77% complete.

Underground Storage – Gas Storage Compressor Stations

RAMP Activity: Non-RAMP

Spending for this program was \$10.2 million compared to an imputed cost of \$19.9 million, a 49 percent variance. SoCalGas explained that the variances were due to revised schedule of the Honor Rancho main compressor unit replacement study and the limited ability to remove compressor equipment from service to perform work because the equipment required to stay online to maintain the reliability of the system.

SoCalGas added that upon commission of the Honor Rancho Compressor Modernization project, the decommissioning of the five existing Enterprise (DeLaval) HVA16C reciprocating units are planned to be completed to comply with South Coast Air Quality Management District (SCAQMD) Rule 1100(d)(7)(A)(iii). The rule states that “on or before 36 months after the permit to construct is issued by the Executive Officer, replace or remove engines identified in the approved Facility-Wide Engine Modernization Compliance Plan, but no later than six months from commencement of operation of the replacement equipment.”

Underground Storage – Gas Storage Wells – RAMP Base – C3

RAMP Activity: Tubing upsizing

Spending for this program was \$16 thousand compared to an imputed cost of \$962 thousand, a 98 percent variance. SoCalGas explained that the variance is due to tubing upsizing, which was primarily completed prior to 2020 as part of well upgrades/workovers. SoCalGas has added that the 2019 work related to Tubing Upsizing was \$34k and was included in the C4 Well workovers line item in the 2019 RSAR. Tubing upsizing also occurred in 2018 as part of assessment and workovers. The 2018 cost for this work completed in 2018 was \$727 thousand.

SDG&E Gas Expense

Gas Distribution – Field O&M – Locate & Mark

RAMP Activity: Training Locate & Mark Activities Prevention and Improvements

Spending for this program was \$7.9 million compared to an imputed cost of \$3.4 million, a 130 percent variance. This program did not report unit variances due to a variety of work that makes it infeasible to identify a single unit of measurement. ED staff requested SDG&E provide costs and units for big ticket items that contributed to the overspending.

SDG&E explained that there were two main drivers that contributed to the variance between actual spending and imputed authorized spending for Locate and Mark (L&M) workpaper. First, the 2019 GRC L&M forecast underestimated the impacts of increased ticket volume associated with the enactment of the Dig Safe Act of 2016 (SB 661) and damage prevention public awareness activities.

The second main driver that contributed to the variance was a shift in the business model for the L&M activity away from primary use of external resources (60% external vs. 40% internal) to 100% internal resources. This transition was made to improve the control, quality, and efficiency of the L&M function through increased oversight and higher internal resource competency to ensure compliance with mandated California Government Code 4216 – Dig Alert requirements. In addition, a portion of the variance is attributed to the transitional period that required the continued use of external resources in parallel with the on-boarding and training of internal resources that took place.

The L&M function includes multiple activities (e.g., high pressure, low pressure, electric, and fiber optic mark outs, and high-pressure standbys). There is also a wide variation in the amount of time and resources required to complete each ticket depending upon the size and location of each project. These multiple activities are not accounted for in SDG&E’s system to accurately separate the units and costs for these contributions to the variance.

ED staff recommends that SDG&E provide cost and units information on significant items on future RSAR reports if they are not able to impute the units due to a variety of work. In addition, ED staff recommends including government mandates in the variance explanations.

SDG&E Gas Capital

Gas Distribution – Meters and Regulator Materials

RAMP Activity: Non-RAMP

Spending for this program was \$12.5 million compared to an imputed cost of \$7.5 million, a 67 percent variance. This program did not report unit variances due to a variety of work that makes it infeasible to identify a single unit of measurement. ED staff requested costs and units for big ticket items that contributed to the overspending.

SDG&E explained that in March 2020, an assessment of meter and regulator stock levels revealed the need to purchase additional meters to cover estimated usage levels for 2020 and to mitigate potential concerns about COVID-19 related supply chain impacts for 2021. Thus, the resulting major cost driver for the variance was the emergent need to purchase a greater quantity of two different meter types in 2020, which represented an additional 31,200 meters at a cost of \$3.9 million.

ED staff recommends that SDG&E provide cost and units information on significant items on future RSAR reports if they are not able to impute the units due to a variety of work.

Attachment B
Sempra RSAR Programs Ranked by Spending Variance

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Sempra RSAR Programs Ranked by Spending Variance

Rank	Company	Cap or O&M	GRC General Line of Business	GRC General LoB	WP Activity Description	RAMP Mitigation Activity	2020 Actuals (\$000)	2020 Imputed Authorized (\$000)	\$ Variance (\$000)	% Variance
1	SCG	CAP	3.B. Balanced Programs Direct Capital Expenses	Balanced Programs Direct Capital Expenses	DIMP	DIMP Programs - Medium Pressure Risk	187,938	45,139	142,799	316%
2	SCG	CAP	1.C. Gas Engineering	Gas Engineering	Land Rights & Buildings	Non-RAMP	102,026	3,605	98,422	2731%
3	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Overhead System Hardening	System Hardening	139,673	54,759	84,913	155%
4	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	Non-RAMP	76,204	444	75,760	17053%
5	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Compressor Stations (BC 335)	Non-RAMP	113,345	39,978	73,366	184%
6	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	CNF - RAMP	System Hardening	84,044	12,384	71,660	579%
7	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	TIMP	ILI & ECDA - cleaning and assessing internal conditions of high-pressure pipelines	104,779	49,080	55,699	113%
8	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Vegetation Management (Tree Trimming)	Programs to inspect and maintain trees in SDG&E's service territory that have the potential to encroach within the minimum required compliance distance between vegetation and overhead power lines.	68,177	24,808	43,369	175%
9	SCG	CAP	3.B. Balanced Programs Direct Capital Expenses	Balanced Programs Direct Capital Expenses	SIMP Total	Well Integrity Management inclusive of inspection of wells, plugging and abandonment, data management, etc.	81,631	40,417	41,214	102%
10	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	HFTD Undergrounding	Non-RAMP	38,896	0	38,896	100%
11	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Replacement Pipelines - RAMP	Gas Transmission	29,290	4,128	25,162	609%
12	SCG	O&M	2.D. Administrative & General	Administrative & General	SECC Outside Services Employees - F923.1	Non-RAMP	82,827	58,213	24,614	42%
13	SCG	CAP	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Enterprise Infrastructure	Non-RAMP	60,301	36,324	23,977	66%
14	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	IT WMP - Balanced	Non-RAMP	36,343	13,156	23,187	176%
15	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Pipelines	Non-RAMP	29,396	6,222	23,175	372%
16	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Gas TIMP/DIMP	DIMP DREAMS	41811	19132.75941	22678.24059	1.19

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Sempra RSAR Programs Ranked by Spending Variance

17	SDG&E	O&M	3.D. Administrative & General	Administrative & General	SECC Outside Services Employees - F923.1	Non-RAMP	69,492	48,799	20,693	42%
18	SCG	CAP	2.C. Support Services	Support Services	Infrastructure & Improvements	Non-RAMP	42,133	21,475	20,657	96%
19	SCG	CAP	3.B. Balanced Programs Direct Capital Expenses	Balanced Programs Direct Capital Expenses	TIMP - Trans	ILI & ECDA - cleaning and assessing internal conditions of high-pressure pipelines	68,396	48,981	19,415	40%
20	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Pipeline Relocations - Franchise	Non-RAMP	39,364	20,804	18,561	89%
21	SDG&E	CAP	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT - Enterprise - Application	Non-RAMP	24,819	6,507	18,313	281%
22	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Auxiliary Equipment	Non-RAMP	36,543	18,305	18,238	100%
23	SCG	CAP	1.F. Gas Transmission	Gas Transmission	Gas Transmission Relocations	Non-RAMP	24,944	8,561	16,384	191%
24	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Drone Investigation Assessment and Repair	Inspection Repair Maintenance & Replacement Programs	15,899	0	15,899	100%
25	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Service Replacements	Non-RAMP	44,968	29,504	15,464	52%
26	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Local Engineering Pool - Electric Distribution	Non-RAMP	96,009	80,633	15,376	19%
27	SDG&E	CAP	2.A. Gas Distribution	Gas Distribution	GD Local Engineering Pool	Non-RAMP	16,516	1,474	15,042	1020%
28	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Contract Admin Pool - RAMP Base	Administration of Projects performed by Contractors	18,787	4,218	14,569	345%
29	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Field Capital Support	Non-RAMP	84,244	69,759	14,485	21%
30	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Pressure Betterment Projects	Non-RAMP	40,951	28,335	12,615	45%
31	SDG&E	CAP	3.C. Support Services	Support Services	Business Unit Expansion Blanket 2017 - 2019	Non-RAMP	19,303	7,862	11,441	146%
32	SCG	CAP	1.F. Gas Transmission	Gas Transmission	Gas Transmission Cathodic Protection - RAMP	Requirements for corrosion control	12,327	1,162	11,165	961%
33	SDG&E	CAP	3.C. Support Services	Support Services	Remodel/Relocate/Reconfig Blanket	Non-RAMP	27,478	16,503	10,975	67%
34	SCG	CAP	1.A. Gas Distribution	Gas Distribution	New Business Construction	Non-RAMP	52,227	41,619	10,608	25%
35	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Capital Tools & Equipment	Non-RAMP	17,640	7,084	10,556	149%
36	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT M&R Stations - RAMP Base	Valve Maintenance and Installation	10,278	0	10,278	100%
37	SDG&E	CAP	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT - Enterprise - Infrastructure	Non-RAMP	15,748	5,501	10,246	186%
38	SDG&E	CAP	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT - Enterprise - Application	Electric Infrastructure Integrity	9,393	0	9,393	100%
39	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	Wildfire Communications	8,754	271	8,483	3131%
40	SDG&E	CAP	3.C. Support Services	Support Services	Structures and Improvements	Non-RAMP	12,893	4,415	8,478	192%
41	SCG	CAP	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Cyber Security - RAMP	Cyber Security	18,587	10,791	7,796	72%
42	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	IT - Enterprise - Application	Data Governance (BC 208750)	7,336	0	7,336	100%
43	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Network Communication Services Director	Non-RAMP	7,370	37	7,333	19842%

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Sempra RSAR Programs Ranked by Spending Variance

44	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Aviation Firefighting Program	Grid Operations & Operating Protocols	7,092	0	7,092	100%
45	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Pipeline Operations	Maintenance - Valve, Meters, Pipe, PLS, Regulators, etc.	10,842	4,469	6,373	143%
46	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	HFTD Fuse Replacements	Non-RAMP	6,291	0	6,291	100%
47	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Fire Threat Zone Adv Protect & SCADA Upgrade	Inspection Repair Maintenance & Replacement Programs	9,164	3,097	6,067	196%
48	SDG&E	CAP	3.C. Support Services	Support Services	Infrastructure & Reliability	Non-RAMP	11,627	5,708	5,919	104%
49	SCG	CAP	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Utility Operations Applications - RAMP	Employee, Contractor, Customer, and Public Safety	6,115	197	5,917	3002%
50	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Other Distribution Capital Projects	Non-RAMP	9,456	3,802	5,653	149%
51	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Main Maintenance	Non-RAMP	22,507	17,159	5,349	31%
52	SDG&E	CAP	2.A. Gas Distribution	Gas Distribution	GD Local Engineering Pool	Local Engineering overhead costs associated with large RAMP proposed projects	9,202	3,859	5,343	138%
53	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Customer Services	Stakeholder Cooperation & Community Engagement	5,224	0	5,224	100%
54	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	C1450 MTO: New 12KV Circuit	Non-RAMP	5,428	237	5,191	2193%
55	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	PSPS Engineering Enhancements	Non-RAMP	5,072	0	5,072	100%
56	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Department Overhead Pool	Non-RAMP	10,390	5,431	4,959	91%
57	SCG	O&M	2.C. Support Services	Support Services	Facility Operations	Non-RAMP	22,720	17,813	4,907	28%
58	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	12kV Substation Reliability	Non-RAMP	4,697	0	4,697	100%
59	SCG	CAP	1.C. Gas Engineering	Gas Engineering	Supervision & Engineering Overhead Pool	Non-RAMP	9,319	4,753	4,567	96%
60	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Locate & Mark	Training Locate & Mark Activities Prevention and Improvements	7,877	3,431	4,446	130%
61	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Fiber Optic for Relay Protect & Telecom	Non-RAMP	4,302	0	4,302	100%
62	SCG	O&M	2.A. Customer Services	Customer Services	CI-Customer Segment Services	Non-RAMP	15,151	11,124	4,027	36%
63	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Fiber Optic for Relay Protect & Telecom	Non-RAMP	4,304	317	3,987	1258%
64	SDG&E	CAP	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT - Enterprise - Network	Non-RAMP	41,295	37,453	3,842	10%
65	SCG	O&M	2.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	SCG Director HR Services	Non-RAMP	6,991	3,159	3,832	121%
66	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP Base - DOE Switch/Manhole Replacement	Distribution Switch Maintenance Program	10,530	6,817	3,713	54%
67	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Elect Transm Line Reliability Projects	Non-RAMP	3,713	0	3,713	100%
68	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Backup Power for Resiliency	Non-RAMP	3,608	0	3,608	100%
69	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Distribution Operations	Non-RAMP	22,384	19,030	3,354	18%
70	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Poway Substation Rebuild	Non-RAMP	3,568	244	3,324	1363%
71	SCG	CAP	1.F. Gas Transmission	Gas Transmission	Ventura Compressor Station Modernization	Non-RAMP	3,316	0	3,316	100%
72	SCG	O&M	2.A. Customer Services	Customer Services	Customer Services Field - Dispatch	Non-RAMP	12,979	9,715	3,265	34%
73	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Technical Services	ROW - Maintenance & Routine	4,903	1,654	3,249	196%
74	SCG	CAP	3.B. Balanced Programs Direct Capital Expenses	Balanced Programs Direct Capital Expenses	TIMP	TIMP Data Maintenance	4,526	1,365	3,161	232%

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Sempra RSAR Programs Ranked by Spending Variance

75	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Main & Service Abandonments	Non-RAMP	12,176	9,134	3,041	33%
76	SDG&E	CAP	1.B. Electric Generation	Electric Generation	Miramar	Non-RAMP	6,080	3,182	2,898	91%
77	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP Base - Corrective Maint Program (CMP)	Inspection, Repair, Maintenance & Replacement Programs	16,383	13,536	2,847	21%
78	SDG&E	CAP	2.D. Gas Transmission	Gas Transmission	GT M&R Stations	Non-RAMP	3,390	555	2,836	511%
79	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL6912 Wood to Steel Pole Replacement - RAMP Incremental	Inspection Repair Maintenance & Replacement Programs	2,782	0	2,782	100%
80	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Regional Operations	Safety Policies & Programs	23,416	20,769	2,647	13%
81	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Planned Investments	Non-RAMP	2,631	0	2,631	100%
82	SDG&E	CAP	2.D. Gas Transmission	Gas Transmission	Moreno Modernization Project	Non-RAMP	2,629	0	2,629	100%
83	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Tools Fittings & Materials	Non-RAMP	11,338	8,751	2,587	30%
84	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	IT - Enterprise - Application	Data Governance (BC 208910)	2,585	0	2,585	100%
85	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	DIMP	DIMP Programs (e.g., DREAMS, GIPP)	45,053	42,471	2,582	6%
86	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Substation Mod to Support FLSR	Non-RAMP	2,513	0	2,513	100%
87	SCG	CAP	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Utility Operations Applications	Non-RAMP	3,715	1,223	2,492	204%
88	SCG	O&M	1.G. Underground Storage	Underground Storage	Underground Storage	Non-RAMP	35,727	33,264	2,463	7%
89	SCG	CAP	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Network/Telecom	Non-RAMP	13,884	11,473	2,410	21%
90	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Auxiliary Equipment	Non-RAMP	6,002	3,612	2,390	66%
91	SCG	CAP	3.B. Balanced Programs Direct Capital Expenses	Balanced Programs Direct Capital Expenses	DIMP	DIMP Programs & records management	4,526	2,176	2,350	108%
92	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Distribution System Capacity Improvement	Non-RAMP	4,333	2,006	2,327	116%
93	SCG	O&M	2.A. Customer Services	Customer Services	MSA Inspection Program	Gas Facility and Pipeline Inspections	15,312	13,022	2,290	18%
94	SDG&E	CAP	3.C. Support Services	Support Services	Environmental/Safety Blanket	Facility improvements necessary to comply with safety and environmental code or regulations and also to implement best practices towards mitigating risk to either the environment or safety of employees or the public	3,783	1,530	2,253	147%
95	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Gas TIMP/DIMP	TIMP - ILLI (ASSESSMENT PROJECTS)	7,674	5,477	2,197	40%
96	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Network/Telecom Services - SDG&E	Non-RAMP	8,710	6,522	2,189	34%
97	SDG&E	CAP	2.A. Gas Distribution	Gas Distribution	GD Local Engineering Pool	Operational QA/QC	2,410	254	2,156	848%
98	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Cathodic Protection	Systems are in place to monitor and manage compliance activity schedules	6,289	4,137	2,153	52%
99	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Service Order Team (SOT)	Non-RAMP	2,104	178	1,926	1084%
100	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	Fire Science & Climate Adaptation	6,216	4,313	1,903	44%
101	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	System Hardening and Helo	13,717	11,828	1,890	16%
102	SCG	CAP	2.C. Support Services	Support Services	Infrastructure & Improvements - RAMP	Physical Security	2,137	329	1,807	549%
103	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	IT - Enterprise - Application	Emergency Planning & Preparedness	1,748	0	1,748	100%
104	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Locate & Mark	Non-RAMP	1,790	42	1,748	4121%
105	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Director IT Infrastructure	Non-RAMP	2,949	1,204	1,744	145%
106	SDG&E	CAP	2.D. Gas Transmission	Gas Transmission	GT Replacements	Non-RAMP	1,626	0	1,626	100%
107	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Meter Guards	Non-RAMP	4,549	3,022	1,527	51%
108	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Substation Security Proj under \$500K	Non-RAMP	1,500	0	1,500	100%

Attachment B
Sempra RSAR Programs Ranked by Spending Variance

109	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Field Support	Non-RAMP	15,760	14,263	1,497	10%
110	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Regional Operations	Non-RAMP	12,743	11,259	1,484	13%
111	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP Incremental - 4 kV Modernization - Distribution	Overhead distribution modernization and hardening	2,951	1,476	1,475	100%
112	SDG&E	CAP	2.D. Gas Transmission	Gas Transmission	GT Cathodic Protection	Requirements for corrosion control.	1,711	238	1,474	619%
113	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	Emergency Prep Trainings	2,467	999	1,468	147%
114	SCG	O&M	2.A. Customer Services	Customer Services	Customer Services Field - Supervision	Non-RAMP	12,740	11,395	1,345	12%
115	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Distribution and Engineering	Safety Policies & Programs	2,232	891	1,342	151%
116	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Pipeline Operations	Corrosion Control Operation - Cathodic Protection	1,602	278	1,324	476%
117	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Security Operations	Cyber security risk and vulnerability	3,243	1,927	1,317	68%
118	SCG	CAP	1.D. Major Projects	Major Projects	Distribution Operations Control Center (DOCC)	Non-RAMP	4,194	2,889	1,305	45%
119	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL649 Otay-San Ysidro-Border SW Pole Repl - RAMP Incremental	Inspection Repair Maintenance & Replacement Programs	1,279	0	1,279	100%
120	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Regulator Stations - RAMP	Systems are in place to monitor and manage compliance activity schedules related to high pressure.	1,387	154	1,233	804%
121	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Meteorology - Fire Science Enhancements	Non-RAMP	1,191	0	1,191	100%
122	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Vegetation Management (Pole Brushing)	Safety Policies & Programs	5,241	4,055	1,186	29%
123	SCG	O&M	2.D. Administrative & General	Administrative & General	Director of Risk	Non-RAMP	1,176	0	1,176	100%
124	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Supervision & Training	Improvements	1,492	355	1,137	320%
125	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Supervision & Training	Non-RAMP	2,942	1,832	1,110	61%
126	SDG&E	CAP	1.B. Electric Generation	Electric Generation	RAMP - Incremental Black Start - South Grid - CPEP	Add blackstart capabilities to the southern part of the SDG&E electric system	1,408	317	1,091	344%
127	SDG&E	CAP	1.B. Electric Generation	Electric Generation	Palomar Plan Operational Improvements	Non-RAMP	5,970	4,890	1,080	22%
128	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Substation C&O	Non-RAMP	6,022	4,949	1,073	22%
129	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Locate & Mark	QA Job Observations Field Rides and Job Monitoring	2,810	1,741	1,069	61%
130	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Security Engineering	Cyber security risk and vulnerability	2,612	1,573	1,039	66%
131	SCG	O&M	1.G. Underground Storage	Underground Storage	Underground Storage	Maintenance of high-pressure storage lines	4,045	3,051	993	33%
132	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Gas Engineering Analysis Center, NGV and Electrical Field	Non-RAMP	7,762	6,771	991	15%
133	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Compressor Stations (BC 315)	Non-RAMP	12,239	11,262	976	9%
134	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Rancho Santa Fe Sub Fire Hardening	Non-RAMP	2,230	1,263	966	76%
135	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Capital Tools & Equipment - RAMP	Upgrade Nomex Coveralls & Fresh Equipment	1,361	406	955	235%
136	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Avocado Sub 69KV Rebuild	Non-RAMP	950	0	950	100%
137	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Pipeline Operations	Odorization of Natural Gas	1,044	111	933	842%
138	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Urban Substation Rebuild	Substation Reliability For Distribution Components - Proactive	916	0	916	100%
139	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Service Delivery - NCS	Non-RAMP	1,755	842	913	109%
140	SDG&E	O&M	3.C. Support Services	Support Services	SDG&E Facility Operations	Non-RAMP	6,179	5,269	911	17%
141	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Power Quality Program	Non-RAMP	889	0	889	100%
142	SCG	O&M	1.D. Gas Major Projects	Gas Major Projects	Project & Construction Management	Non-RAMP	1,097	223	874	393%
143	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RTU Modernization - RAMP Incremental - SCADA Master Modernization	Modernize Equipment	4,472	3,621	851	24%

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Sempra RSAR Programs Ranked by Spending Variance

144	SDG&E	CAP	2.D. Gas Transmission	Gas Transmission	Compressor Stations (BC 415)	Non-RAMP	2,818	1,975	843	43%
145	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Field Force Program Delivery Team	Non-RAMP	897	60	836	1389%
146	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	C303 CAN: Reconductor & CAP	Non-RAMP	814	0	814	100%
147	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	High Risk Switch Replacement Project	Distribution Overhead Switch Replacement Program	810	0	810	100%
148	SCG	CAP	1.F. Gas Transmission	Gas Transmission	Gas Transmission Freeway Relocations	Non-RAMP	815	22	793	3659%
149	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	IT - Enterprise - Application	Grid Operations & Operating Protocols	789	0	789	100%
150	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Safety, Wellness & Disability Services	Contractor Safety Oversight	1,023	264	759	287%
151	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Other Distribution Capital Projects - RAMP	Valve Maintenance and Installation (Distribution High Pressure)	763	26	737	2880%
152	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Tools Fittings & Materials	PPE and Safety Equipment - Company wide purchases of personal protective equipment (PPE)	1,439	733	706	96%
153	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	System Protection	Non-RAMP	2,700	2,001	698	35%
154	SDG&E	O&M	2.D. Gas Transmission	Gas Transmission	Pipeline Operations	Pipeline Patrol & Maintenance	709	22	687	3187%
155	SCG	CAP	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Customer Services	Non-RAMP	1,681	1,000	681	68%
156	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Reactive Small Capital Projects	Non-RAMP	3,014	2,338	676	29%
157	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Project Management	Non-RAMP	2,071	1,397	674	48%
158	SCG	O&M	2.D. Administrative & General	Administrative & General	Chief Risk Officer	Non-RAMP	673	0	673	100%
159	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Field Capital Support - RAMP	Systems are in place to monitor and manage compliance activity schedules	754	94	660	702%
160	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	Meteorology Studies and Education	1,095	443	652	147%
161	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Distribution and Engineering	Non-RAMP	1,060	423	637	151%
162	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Asset Management	Non-RAMP	8,367	7,778	589	8%
163	SDG&E	CAP	1.8. Electric Generation	Electric Generation	Cuyamaca Peak Energy Plant Oper Enhance	Non-RAMP	982	393	589	150%
164	SCG	O&M	2.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	SCG CEO President & COO and Chief of Human Resources & CAO	Non-RAMP	2,400	1,817	583	32%
165	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Middleware and Internet Engineering	Non-RAMP	1,197	624	573	92%
166	SCG	CAP	1.A. Gas Distribution	Gas Distribution	New Business Construction - Trench Reimbursements	Non-RAMP	1,238	694	544	78%
167	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Telecom PMO	Non-RAMP	638	104	534	515%
168	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Enterprise Monitoring	Non-RAMP	519	0	519	100%
169	SDG&E	O&M	3.C. Support Services	Support Services	Land Services	Non-RAMP	1,280	761	519	68%
170	SDG&E	O&M	2.D. Gas Transmission	Gas Transmission	Pipeline Operations	M&R (Maint. & Insp.)	527	8	518	6312%
171	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	RAMP Base - Weather Station Adv Detection	Advanced Detection	1,032	536	496	92%
172	SCG	O&M	2.C. Support Services	Support Services	Facility Operations	Physical Security	510	17	493	2825%
173	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Mission Substation 230kV Rebuild	Non-RAMP	488	0	488	100%
174	SDG&E	CAP	2.B. Gas Engineering	Gas Engineering	GT Supervision & Engineering Pool	Non-RAMP	604	120	484	402%
175	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Major Projects	Non-RAMP	590	115	475	415%
176	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Orange County Long Range Plan - SOCRE	Non-RAMP	2,970	2,507	462	18%
177	SCG	O&M	1.D. Gas Major Projects	Gas Major Projects	Project Controls And Estimating	Non-RAMP	587	138	449	325%

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Sempra RSAR Programs Ranked by Spending Variance

178	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	IT - Enterprise - Application	Resource Allocation Methodology	444	0	444	100%
179	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Proactive Dead Front Terminator Deploy	Non-RAMP	442	0	442	100%
180	SDG&E	O&M	3.D. Administrative & General	Administrative & General	SECC Outside Services Employees - F923.1	Workplace Violence/Corporate Security	1,763	1,325	438	33%
181	SDG&E	O&M	3.C. Support Services	Support Services	RE Planning-Mac	Non-RAMP	448	12	436	3519%
182	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Security Policy and Awareness	Cyber security risk and vulnerability	1,485	1,049	436	42%
183	SDG&E	CAP	2.B. Gas Engineering	Gas Engineering	GT Auxiliary Equipment (BC 419)	Non-RAMP	461	30	431	1444%
184	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Grid Operations	Non-RAMP	1,050	623	427	68%
185	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	IT - Enterprise - Application	Situational Awareness & Forecasting	424	0	424	100%
186	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Cathodic Protection	Requirements for Corrosion Control	2,093	1,670	423	25%
187	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Wells - RAMP Base - C2	Well plug & abandon	18,468	18,046	422	2%
188	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Cathodic Protection	Gas Facility and Pipeline Inspections	1,389	978	411	42%
189	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Software Dev - Work Meas Systems	Non-RAMP	757	357	401	112%
190	SDG&E	O&M	3.D. Administrative & General	Administrative & General	Operations Cost Center -USS-Controllers-Business Controls	Non-RAMP	664	266	397	149%
191	SCG	O&M	2.D. Administrative & General	Administrative & General	SECC Outside Services Employees - F923.1	Workplace Violence/Corporate Security	2,576	2,183	393	18%
192	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Distribution Operations	Records Management	2,616	2,224	392	18%
193	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Customer Analytics System	Non-RAMP	920	533	387	73%
194	SCG	O&M	2.A. Customer Services	Customer Services	Business Strategy and Development	Non-RAMP	2,044	1,659	385	23%
195	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Critical Infrastructure Protection	Cyber security risk and vulnerability	3,409	3,028	381	13%
196	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Gas Control & SCADA Operation Group - USS	Fatigue Management	852	475	376	79%
197	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Field Support	Qualifications of Pipeline Personnel	2,988	2,614	374	14%
198	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Operator Qualification	Non-RAMP	1,651	1,281	370	29%
199	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Artesian 230kV Expansion-Prel. Eng.	Substation Reliability For Distribution Components - Proactive	370	0	370	100%
200	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Safety Compliance	Safety Regulations, Policies, and Guidelines	1,016	659	356	54%
201	SDG&E	CAP	3.C. Support Services	Support Services	Environmental/Safety Blanket	Non-RAMP	506	161	345	215%
202	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Services Field - Dispatch	Non-RAMP	4,696	4,355	341	8%
203	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Distribution and Engineering	Workforce Planning	566	226	340	151%
204	SCG	CAP	1.G. Underground Storage	Underground Storage	GS - Aliso Canyon	Erosion mitigation	1,401	1,062	339	32%
205	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Electric Transmission Tools/Equipment	Non-RAMP	333	0	333	100%
206	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Offices Of The President And COO	Non-RAMP	1,824	1,513	312	21%
207	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Tools Fittings & Materials	Non-RAMP	1,414	1,114	301	27%
208	SDG&E	O&M	3.A. Customer Services	Customer Services	CCC Operations	Non-RAMP	10,279	9,980	299	3%
209	SDG&E	O&M	3.A. Customer Services	Customer Services	CCC Support	Non-RAMP	3,255	2,959	296	10%
210	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Transmission System Automation	Non-RAMP	293	0	293	100%
211	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	IT - Enterprise - Application	Data Governance (BC 208890)	293	0	293	100%
212	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Distribution Circuit Reliability Construction RAMP	Expand and Maintain Distribution Advanced SCADA infrastructure	4,337	4,049	288	7%
213	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Field Shunt Capacitors	Non-RAMP	992	705	287	41%

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Sempra RSAR Programs Ranked by Spending Variance

214	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	CI Standards	Non-RAMP	849	566	283	50%
215	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Measurement & Regulation	Non-RAMP	2,298	2,017	281	14%
216	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	SSDS Project Office	Non-RAMP	994	717	277	39%
217	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Gas Control & SCADA Operation Group - USS	Gas Control Operation	2,057	1,787	270	15%
218	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL674A Del Mar Reconfigure/TL666D RFS	Non-RAMP	266	0	266	100%
219	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Leak Survey	Maintenance	2,075	1,823	252	14%
220	SDG&E	CAP	3.C. Support Services	Support Services	Misc. Equipment Blanket	Non-RAMP	2,000	1,749	251	14%
221	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Emergency Substation Equipment	Non-RAMP	739	490	250	51%
222	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Other Services	Non-RAMP	472	224	248	111%
223	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Research Development and Demonstration (RD&D) Technology Dev	Non-RAMP	16,040	15,802	238	2%
224	SDG&E	O&M	3.C. Support Services	Support Services	RB Data Center	Non-RAMP	670	439	232	53%
225	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Other Distribution Capital Projects - RAMP	Systems are in place to monitor and manage compliance activity schedules- Maintenance and Inspection of Medium Pressure Valves	238	9	229	2600%
226	SCG	O&M	2.A. Customer Services	Customer Services	CCC - Operations	CSR Training, Quality Observations, CCC Safety Committee Liaison	482	254	229	90%
227	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Gas Operations Training & Development	Employee Skills Training	2,000	1,775	225	13%
228	SCG	O&M	2.A. Customer Services	Customer Services	Policy & Environmental Solutions NSS	Non-RAMP	1,226	1,001	225	23%
229	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	WMP Enhanced Comm 800MHZ Radio Systems	Emergency Planning & Preparedness	225	0	225	100%
230	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Field Services Leadership & Operations Assessment	Non-RAMP	512	304	208	68%
231	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Director - Computing Infrastructure	Non-RAMP	203	0	203	100%
232	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Wells - RAMP Base - C4	Well workovers	4,939	4,743	196	4%
233	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Identity & Access Management	Cyber security risk and vulnerability	195	0	195	100%
234	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL691 Avo-Mon Wood to Steel - RAMP Incremental	Inspection Repair Maintenance & Replacement Programs	192	0	192	100%
235	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Energy Markets & Capacity Products - Manager	Non-RAMP	866	680	186	27%
236	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Services Field - Operations	CSF Emergency Orders - include carbon monoxide, fumigation and hazardous and non hazardous gas leaks and atmospheric corrosion orders	5,290	5,105	185	4%
237	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Aerial Mesh Network Expansion	Non-RAMP	185	0	185	100%
238	SCG	O&M	1.1. Gas Acquisition	Gas Acquisition	Gas Acquisition	Non-RAMP	4,909	4,725	184	4%
239	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Main Maintenance	Safety Policies & Programs	1,568	1,387	181	13%
240	SDG&E	CAP	3.C. Support Services	Support Services	Security Systems	Physical Security Systems	4,246	4,069	178	4%
241	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	CI Compute Support SCG	Non-RAMP	1,317	1,149	167	15%
242	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL690E - Camp Pendleton - Wood to Steel	Inspection Repair Maintenance & Replacement Programs	164	0	164	100%
243	SCG	O&M	2.D. Administrative & General	Administrative & General	Accounting Systems & Compliance	Non-RAMP	483	325	158	49%

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Sempra RSAR Programs Ranked by Spending Variance

244	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Local Engineering Pool - ED RAMP	Works Standards and Methods	969	814	155	19%
245	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Regional Operations	Inspection and Preventative Maintenance	1,364	1,210	154	13%
246	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Business Process ESS Implementation and ESS Mobile Solution	Information Management System	276	122	154	126%
247	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Regional Operations	Workforce Planning	1,359	1,205	154	13%
248	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Regional Operations	Distribution Switch Maintenance Program	1,290	1,144	146	13%
249	SCG	CAP	2.C. Support Services	Support Services	Facility Energy Management Systems	Non-RAMP	227	83	144	175%
250	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	SVP & CITO	Non-RAMP	609	471	138	29%
251	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL600 - Reliability Pole Replacements	Non-RAMP	136	0	136	100%
252	SCG	CAP	1.F. Gas Transmission	Gas Transmission	MP PL Rpls / Quality/Economic Driven	Non-RAMP	134	0	134	100%
253	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Energy Markets & Capacity Products - Support	Non-RAMP	807	685	122	18%
254	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Services Field - Operations	Workforce Planning Technical Training for Critical Roles - Service Technicians and Appliance Mechanics backfill for retirements	175	55	120	216%
255	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL633 Reconductor (Bernardo - Rancho Carmel)	Non-RAMP	119	0	119	100%
256	SCG	O&M	2.C. Support Services	Support Services	Environmental	Investigation of environmental exposure incidents	616	497	119	24%
257	SDG&E	CAP	1.B. Electric Generation	Electric Generation	Ramona Solar Plant Oper Enhance	Non-RAMP	118	0	118	100%
258	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Server Management	Non-RAMP	1,091	974	117	12%
259	SDG&E	O&M	1.C. Electric & Fuel Procurement	Electric & Fuel Procurement	Mid and Back Office	Non-RAMP	3,985	3,868	116	3%
260	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	SDG&E Network Engineering	Non-RAMP	416	301	115	38%
261	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	UAS Safety Program	290	179	111	62%
262	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Service Maintenance	Non-RAMP	2,190	2,079	111	5%
263	SDG&E	O&M	3.A. Customer Services	Customer Services	Advanced Metering Ops	Job Observation and Behavior Based Safety.	147	41	106	258%
264	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Gas Operations Training & Development	Qualifications of Pipeline Personnel - MP	1,600	1,497	103	7%
265	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Main Maintenance	Maintenance - Valve Inspection and Maintenance (From Field Support)	1,014	911	103	11%
266	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Gas Transmission Planning	Non-RAMP	864	765	99	13%
267	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL698 AVOCADO SUB GATEWAY DB CBL REPLACE	Non-RAMP	92	0	92	100%
268	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	SCG GIS & CAD Services	Non-RAMP	279	189	90	47%
269	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL663 Mission to Kearny Reconductor	Non-RAMP	121	34	88	261%
270	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL695 Talega Wood to Steel - RAMP Incremental	Inspection Repair Maintenance & Replacement Programs	87	0	87	100%
271	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Safety Enhancements for Battery	Non-RAMP	86	0	86	100%
272	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Information Security Programs	Cyber security risk and vulnerability	109	24	85	349%
273	SCG	O&M	2.D. Administrative & General	Administrative & General	Oper Risk Mgmt-Scg	Non-RAMP	407	323	83	26%

Attachment B
Sempra RSAR Programs Ranked by Spending Variance

274	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL6926 Rincon to Valley Center Fire Hardening	Inspection Repair Maintenance & Replacement Programs	78	0	78	100%
275	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Dir Eng & Tech Services	Non-RAMP	634	561	74	13%
276	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	DCAM Program	Non-RAMP	72	0	72	100%
277	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Wabash Canyon Sub 60/12kV Bank 32	Non-RAMP	72	0	72	100%
278	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL692 Horno Pulgas (Camp Pend)	Inspection Repair Maintenance & Replacement Programs	69	0	69	100%
279	SDG&E	CAP	3.C. Support Services	Support Services	Archibus Business Systems Improvements	Non-RAMP	1,331	1,264	68	5%
280	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Distribution and Engineering	Records Management	109	44	66	151%
281	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Field Support	QA Job Observations Field Rides and Job Monitoring	129	64	65	103%
282	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Field Capital Support - RAMP	Med Pressure Company Crew Inspections	124	59	65	111%
283	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Top Gun PTO Interconnection	Non-RAMP	65	0	65	100%
284	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Operations Management & Training	Customer Communications & First Responder training	351	290	61	21%
285	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL636 Wood to Steel Replacement	Inspection Repair Maintenance & Replacement Programs	60	0	60	100%
286	SCG	O&M	2.C. Support Services	Support Services	Environmental	SoCalGas Environmental Training	837	777	60	8%
287	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Regional Operations	Aviation Safety	509	452	58	13%
288	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Measurement & Regulation	Scheduled monitoring and survey activities	2,720	2,666	54	2%
289	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Infrastructure Portf	Non-RAMP	54	0	54	100%
290	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Overhead Public Safety	Overhead distribution modernization and hardening	53	0	53	100%
291	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Measurement & Regulation	Maintenance - Inspect meters, regulators, and gauges to evaluate and confirm overpressure protection is in place and maintained.	1,602	1,550	52	3%
292	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Serv Contin Mgmt	Non-RAMP	51	0	51	100%
293	SDG&E	O&M	2.D. Gas Transmission	Gas Transmission	Pipeline Operations	Cathodic Protection	80	30	51	170%
294	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	IT - Enterprise - Application	Inspection Repair Maintenance & Replacement Program	48	0	48	100%
295	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Gas Operations Training & Development	Locate & Mark Activities	200	156	44	28%
296	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Regulator Stations - RAMP	Systems are in place to monitor and manage compliance activity schedules related to medium pressure.	73	35	38	109%
297	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL13831 Wood to Steel Replacement (Talega - Rancho Mission Viejo)	Inspection Repair Maintenance & Replacement Programs	38	0	38	100%
298	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Gateway Energy Storage	Non-RAMP	38	0	38	100%
299	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL639 Wood to Steel Replacement	Inspection Repair Maintenance & Replacement Programs	37	0	37	100%
300	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL23001 TL23004 Wood to Steel Replacement (Mission - San Luis Rey)	Inspection Repair Maintenance & Replacement Programs	37	0	37	100%
301	SDG&E	O&M	3.C. Support Services	Support Services	Facilities Operations South Manager	Non-RAMP	574	539	35	7%
302	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Director Gas Transmission - USS	Non-RAMP	300	265	35	13%
303	SCG	O&M	2.C. Support Services	Support Services	Environmental	Environmental Services and Safety Compliance Management Program (ESCMP)	147	113	34	30%

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304	SDG&E	O&M	3.A. Customer Services	Customer Services	Credit & Collections	Meter Tampering and meter bypass investigation and remediation.	298	265	33	13%
305	SCG	O&M	2.A. Customer Services	Customer Services	Customer Services Field - Support	EmployeeSkills Training and QA inspections	3,918	3,887	31	1%
306	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Storage Products Manager	Non-RAMP	206	175	31	18%
307	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Leak Survey	Employee, Contractor, and Public Safety	256	225	31	14%
308	SCG	O&M	2.C. Support Services	Support Services	Environmental	Service Contracting	215	185	30	16%
309	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL6975- Escondido - San Marcos	Transmission OH Reliability Projects	29	0	29	100%
310	SCG	O&M	2.C. Support Services	Support Services	Director	Non-RAMP	156	128	28	22%
311	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	San Luis Rey	Non-RAMP	28	0	28	100%
312	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Identity & Access Management	Firewall Admin	27	0	27	100%
313	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Operations Management & Training	Qualifications of Pipeline Personnel	746	720	26	4%
314	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Major Projects	Contractor Safety Program	32	6	26	415%
315	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Services Field - Support	Field observations of employee and contractors activities and safety behaviors	106	82	24	29%
316	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Main Replacements - RAMP	Contracting for Traffic Control Delineation materials	2,457	2,434	23	1%
317	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Service Development Program Management	Non-RAMP	343	322	21	7%
318	SCG	CAP	1.A. Gas Distribution	Gas Distribution	New Business - RAMP	MSA Inspections- Customer Service Initial Turn-Ons	2,296	2,276	20	1%
319	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Lightning Arrestor Replacement Program	Inspection Repair Maintenance & Replacement Programs	20	0	20	100%
320	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Fallbrook Battery Energy Storage - PTO	Non-RAMP	19	0	19	100%
321	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Pipeline Safety & Compliance	Non-RAMP	693	674	19	3%
322	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Rugged Solar Farm	Non-RAMP	18	0	18	100%
323	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL6916 Sycamore Canyon to Scripps Wood to Steel	Non-RAMP	68	50	18	35%
324	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Suncrest SVC Interconnection	Non-RAMP	16	0	16	100%
325	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Miguel Substation 230kV Rebuild	Non-RAMP	16	0	16	100%
326	SDG&E	CAP	2.A. Gas Distribution	Gas Distribution	GD Local Engineering Pool	Gas standards review	61	45	16	35%
327	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Organizational Effectiveness	Training	15	0	15	100%
328	SCG	O&M	2.A. Customer Services	Customer Services	Planning & Legislative Analysis	Non-RAMP	258	244	14	6%
329	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Asset Management	Operations	90	76	14	19%
330	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	DCAM Program	Non-RAMP	14	0	14	100%
331	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Infra PMO	Non-RAMP	14	0	14	100%
332	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Kettle Solar One	Non-RAMP	13	0	13	100%
333	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Valley Center Renewable	Non-RAMP	13	0	13	100%
334	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Cint Tech & Depot Svc-SCG	Non-RAMP	374	363	11	3%
335	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Vegetation Management (Pole Brushing)	Joint Power Line Inspections with CalFire	49	38	11	29%
336	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Auxiliary Equipment - RAMP	Physical security measures put in place for the security/safety of employees and infrastructure	1,011	1,000	11	1%
337	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Pipeline System Construction Policy	Policy Procedures Standards and ESCMP	696	686	10	1%
338	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL673 Direct Buried Cable Replacement (Rose Canyon - La Jolla)	Transmission OH Reliability Projects	10	0	10	100%

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339	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Gas Operations Training & Development	Qualifications of Pipeline Personnel - HP	140	132	8	6%
340	SCG	O&M	2.C. Support Services	Support Services	Facility Operations	Site Security Reviews	19	12	7	53%
341	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Business Process Enterprise System Support (ESS) Implementation and ESS Mobile Solution	Non-RAMP	218	212	6	3%
342	SDG&E	O&M	3.A. Customer Services	Customer Services	CCC Operations	ESS Emergency call training: 5 hrs per ESS.	29	23	6	28%
343	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Main Maintenance	High-Pressure Pipeline Failure, Project Maintenance - Valve Maintenance and Installation (Distribution High Pressure) (From Field Support)	69	63	6	10%
344	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	San Mateo Substation Rebuild (start in 2019)	Non-RAMP	6	0	6	100%
345	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Distribution Operations	Workforce Planning	36	31	5	18%
346	SDG&E	O&M	2.D. Gas Transmission	Gas Transmission	Technical Services	Engineering, Supervision, Oversight & Review	40	36	4	12%
347	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	ECO Substation	Non-RAMP	4	0	4	100%
348	SDG&E	O&M	3.D. Administrative & General	Administrative & General	Operations Risk Management SDG&E	Non-RAMP	2,692	2,689	3	0%
349	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Mount Laguna Wind	Non-RAMP	2	0	2	100%
350	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	System Protection	Workforce Planning	9	7	2	31%
351	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL13835- Wood to Steel Project	Non-RAMP	2	0	2	100%
352	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	SX-PQ 230 kV Line	Non-RAMP	1	0	1	100%
353	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	CAST Security Upgrades	Non-RAMP	1	0	1	100%
354	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	SONGS Synchronous Condenser	Non-RAMP	1	0	1	100%
355	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Blue Hornet Solar	Non-RAMP	1	0	1	100%
356	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL690A Pendleton South W2S	Non-RAMP	1	0	1	100%
357	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Main Maintenance	Maintenance - Unstable Earth Inspection (From Field Support)	9	8	1	10%
358	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	New 2nd Miguel to Bay Blvd. 230 kV Line	Non-RAMP	1	0	1	100%
359	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Technical Services Manager - USS	Non-RAMP	395	395	1	0%
360	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL603 Loop-in (Sweetwater, National City, and Naval Station Metering)	Transmission OH Reliability Projects	1	0	1	100%
361	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Silver Ridge Mount Signal	Non-RAMP	1	0	1	100%
362	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Services Field - Dispatch	Field observations of employee and contractors activities and safety behaviors	1	1	0	0%
363	SDG&E	O&M	3.D. Administrative & General	Administrative & General	SECC Outside Services Employees - F923.1	Records Management	106	106	0	0%
364	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	C1139 Santee - New circuit	Non-RAMP	0	0	0	100%
365	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	New Downtown 69/12kV Substation	Non-RAMP	0	0	0	100%
366	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Ramp Base - Install SCADA on Line Capacitors	Expand and Maintain Distribution Advanced SCADA infrastructure	0	0	0	100%
367	SCG	O&M	2.D. Administrative & General	Administrative & General	SECC Outside Services Employees - F923.1	Records Management	121	121	(0)	0%
368	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Network Field - LAN/WAN Voice	Non-RAMP	0	1	(1)	-100%
369	SDG&E	CAP	2.D. Gas Transmission	Gas Transmission	GT Relocation	Non-RAMP	0	1	(1)	-100%
370	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Leak Survey	Non-RAMP	0	2	(2)	-93%
371	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Client Services Maintenance & Support	Non-RAMP	0	2	(2)	-100%
372	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Gas Control & SCADA Operation Group - USS	Operation	0	2	(2)	-100%
373	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Construction Services	Workforce Planning	15	18	(3)	-16%
374	SDG&E	CAP	1.B. Electric Generation	Electric Generation	Desert Star Energy Ctr Oper. Enhance	Non-RAMP	3,871	3,875	(3)	0%
375	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Grid Operations	Workforce Planning	0	4	(4)	-100%

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376	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Enterprise Operations	Non-RAMP	(2)	2	(4)	-201%
377	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Architecture and Integration - SCG	Non-RAMP	579	584	(5)	-1%
378	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Operations Management & Training	Operations #1	95	100	(5)	-5%
379	SDG&E	O&M	2.D. Gas Transmission	Gas Transmission	Technical Services	Non-RAMP	2	8	(6)	-71%
380	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Reliability & Capacity	Improved modeling tools for DER's	75	82	(7)	-8%
381	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Telecom PMO	Non-RAMP	89	97	(8)	-8%
382	SCG	O&M	2.C. Support Services	Support Services	Environmental	Compliance program to comply with the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)	9	19	(10)	-53%
383	SDG&E	CAP	2.B. Gas Engineering	Gas Engineering	GT Auxiliary Equipment (BC 439)	Non-RAMP	0	11	(11)	-100%
384	SDG&E	O&M	1.B. Electric Generation	Electric Generation	Generation Plant Miramar	Maintenance Certification and testing of existing Blackstart Resources	11	23	(11)	-49%
385	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Operations Management & Training	Operations #2	64	75	(11)	-15%
386	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Management of Underground Distribution Service	Non-RAMP	4,198	4,209	(11)	0%
387	SDG&E	O&M	1.B. Electric Generation	Electric Generation	Resource Planning Director	Non-RAMP	880	894	(14)	-2%
388	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Gas Control & SCADA Operation Group - USS	Non-RAMP	0	14	(14)	-100%
389	SCG	O&M	2.C. Support Services	Support Services	Facilities-Monterey Park Mgr	Non-RAMP	2,564	2,580	(16)	-1%
390	SDG&E	O&M	1.B. Electric Generation	Electric Generation	Generation Plant Cuyamaca Peak	Add blackstart capabilities to the southern part of the SDG&E electric system.	7	23	(16)	-70%
391	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Safety, Wellness & Disability Services	AED Maintenance	26	44	(18)	-41%
392	SCG	O&M	2.A. Customer Services	Customer Services	Clean Transportation - Customer Outreach	Non-RAMP	1,484	1,502	(18)	-1%
393	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Field Support	PPE and Safety Equipment	0	22	(22)	-100%
394	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Wrk Mgmt & Databases	Operational Compliance and Oversight	200	222	(22)	-10%
395	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Information Security SCG	Firewall Admin	761	783	(22)	-3%
396	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Reliability & Capacity	Non-RAMP	266	290	(24)	-8%
397	SDG&E	CAP	2.B. Gas Engineering	Gas Engineering	GT Capital Tools	Non-RAMP	70	97	(27)	-28%
398	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	SDG&E Field Safety	Safety Programs & Projects	1,038	1,065	(28)	-3%
399	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	ESS Production Support	Information Management Systems	80	111	(31)	-28%
400	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Pipeline Safety Oversight	Non-RAMP	602	634	(31)	-5%
401	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Streamview 69/12KV Sub Rebuild-Pre Eng	Non-RAMP	0	32	(32)	-99%
402	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Main Maintenance	Maintenance - Bridge and Span (From Field Support)	96	128	(32)	-25%
403	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Facilities WMP - Balanced	Non-RAMP	635	670	(35)	-5%
404	SDG&E	O&M	3.C. Support Services	Support Services	Facilities & Capital Programs - Admin	Non-RAMP	105	142	(36)	-26%
405	SDG&E	O&M	2.C. Gas System Integrity	Gas System Integrity	Pipeline Safety & Compliance	Non-RAMP	81	118	(37)	-31%
406	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Services Field - Operations	Job Observation and Behavior Based Safety.	127	164	(37)	-23%
407	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Asset Management	Coat or remove affected buried piping in vaults	200	241	(41)	-17%
408	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Electric Regional Operations	Employee Records Management training course	0	43	(43)	-100%
409	SCG	O&M	2.C. Support Services	Support Services	Facility Operations	New Contract Security	198	242	(44)	-18%
410	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Research, Planning & Development	Non-RAMP	0	44	(44)	-100%
411	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL691 Avo-Mon Wood to Steel - RAMP Incremental	Inspection Repair Maintenance & Replacement Programs	0	45	(45)	-100%

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412	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	District Ops Enterprise Geographic Information System Standards	Non-RAMP	244	292	(48)	-16%
413	SCG	O&M	2.A. Customer Services	Customer Services	Advanced Meter Operations	Annual DCU/ Pole Inspections	257	306	(49)	-16%
414	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Compliance Management	Records Management	510	560	(50)	-9%
415	SDG&E	O&M	3.A. Customer Services	Customer Services	CCC Operations	Capture Customer Email Program to update customer contact information	133	185	(52)	-28%
416	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Electrical Design	Non-RAMP	117	171	(53)	-31%
417	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Safety, Wellness & Disability Services	OSHA Voluntary Protection Programs	0	55	(55)	-100%
418	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL664_668 Miramar Wood to Steel	Non-RAMP	0	59	(59)	-100%
419	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Aerial Marking for Safety	Non-RAMP	11	70	(59)	-85%
420	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	System Protection	Replace failed SCADA remote terminal units (RTU's)	0	60	(60)	-100%
421	SDG&E	O&M	3.A. Customer Services	Customer Services	CCC Operations	Emergency calls taken by the Customer Contact Center including outage calls.	354	414	(60)	-14%
422	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Transmission Substation Reliability	Non-RAMP	1	61	(60)	-98%
423	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL6912 Wood to Steel Pole Replacement - RAMP Incremental	Inspection Repair Maintenance & Replacement Programs	0	60	(60)	-100%
424	SDG&E	O&M	3.A. Customer Services	Customer Services	Marketing Research & Analytics	Safety Communications (Summer/Winter Preparedness; Emergency Preparedness)	266	327	(61)	-19%
425	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Technical Services	Non-RAMP	260	322	(62)	-19%
426	SDG&E	O&M	3.D. Administrative & General	Administrative & General	VP Enterprise Risk Management	Non-RAMP	409	473	(64)	-13%
427	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Locate & Mark	Non-RAMP	464	531	(67)	-13%
428	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Doheny Desalination 15MW Project	Non-RAMP	0	71	(71)	-100%
429	SCG	O&M	2.A. Customer Services	Customer Services	CS Field Staff Manager	Non-RAMP	465	537	(72)	-13%
430	SCG	O&M	2.C. Support Services	Support Services	Environmental	Environmental Self-Assessment	418	491	(73)	-15%
431	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Client Tech Svcs	Non-RAMP	0	74	(74)	-100%
432	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	C1447 MTO: Extension and offload from C958	Non-RAMP	0	76	(76)	-100%
433	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Elect Transmission Line Reliability Projects	Non-RAMP	838	914	(76)	-8%
434	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	GRID Modernization	Non-RAMP	0	79	(79)	-100%
435	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Organizational Effectiveness	Working Foreman Training and Human Performance	0	87	(87)	-100%
436	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Electric Support	Non-RAMP	380	471	(90)	-19%
437	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Director - Information Security	Cyber security risk and vulnerability	309	402	(93)	-23%
438	SDG&E	CAP	2.A. Gas Distribution	Gas Distribution	Cathodic Protection System Enhancement - RAMP	Cathodic Protection	1,249	1,343	(95)	-7%
439	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Bi & Analytics Engineering-SAS Contracts	Non-RAMP	5,183	5,284	(100)	-2%
440	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Mechanical Design	Non-RAMP	96	199	(103)	-52%
441	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Civil Structural & Hazard Mitigation Engineering	Real time monitoring of land movement via stress acting on infrastructure	5	110	(105)	-95%
442	SCG	O&M	2.A. Customer Services	Customer Services	Advanced Meter Operations	Analyze consumption patterns to identify atypical/unusual consumption	98	204	(107)	-52%
443	SDG&E	O&M	2.C. Gas System Integrity	Gas System Integrity	Damage Prevention and Public Awareness	Non-RAMP	0	109	(109)	-100%
444	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Organizational Effectiveness	Supervisor Effectiveness Training	0	110	(110)	-100%
445	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Safety, Wellness & Disability Services	VPP Application and Implementation	0	110	(110)	-100%
446	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Main Maintenance	Non-RAMP	2,298	2,409	(111)	-5%
447	SDG&E	O&M	1.B. Electric Generation	Electric Generation	Generation Plant Cuyamaca Peak	Non-RAMP	1,049	1,161	(111)	-10%
448	SDG&E	CAP	3.C. Support Services	Support Services	Land Blanket	Non-RAMP	223	335	(112)	-33%

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449	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Main Maintenance	Maintenance - Pipeline Patrol (From Field Support)	90	209	(119)	-57%
450	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Skills & Compliance Training	Non-RAMP	2,031	2,151	(119)	-6%
451	SDG&E	O&M	2.D. Gas Transmission	Gas Transmission	Technical Services	Operator Qualification	0	120	(120)	-100%
452	SDG&E	O&M	3.A. Customer Services	Customer Services	Advanced Metering Ops	Workforce Planning	0	120	(120)	-100%
453	SCG	O&M	1.D. Gas Major Projects	Gas Major Projects	Major Projects Management & Outreach	Non-RAMP	2,377	2,498	(121)	-5%
454	SDG&E	O&M	3.D. Administrative & General	Administrative & General	Health Benefits - Emp Assistance Program	Non-RAMP	160	286	(127)	-44%
455	SCG	CAP	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Utility Operations Applications - RAMP	Records Management	28,703	28,833	(130)	0%
456	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Emergency Services	Non-RAMP	0	130	(130)	-100%
457	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Organizational Effectiveness	Non-RAMP	1,839	1,970	(130)	-7%
458	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Construction Services	Contractor Safety Review	690	823	(133)	-16%
459	SDG&E	O&M	1.B. Electric Generation	Electric Generation	Electric Project Development	Non-RAMP	1	135	(134)	-100%
460	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Margarita Substation New 12KV Circuit 1259	Non-RAMP	5	140	(135)	-96%
461	SDG&E	CAP	1.B. Electric Generation	Electric Generation	Generation Capital Tools & Test Eqpt.	Non-RAMP	92	230	(138)	-60%
462	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Gas Control & SCADA Operation Group - USS	SCADA Operation	924	1,063	(140)	-13%
463	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Wells - RAMP Base - C7	Wells blanket projects	653	794	(141)	-18%
464	SDG&E	O&M	2.C. Gas System Integrity	Gas System Integrity	Gas Contractor Controls	Safety Policies & Programs	0	142	(142)	-100%
465	SDG&E	O&M	1.B. Electric Generation	Electric Generation	Generation - Plant - Admin	Non-RAMP	246	389	(143)	-37%
466	SCG	O&M	2.C. Support Services	Support Services	Environmental	Asbestos Safety Program	662	807	(145)	-18%
467	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP base - replacement of live front equipment	live front transformer and terminal replacement	522	668	(146)	-22%
468	SCG	O&M	2.A. Customer Services	Customer Services	Customer Services Field - Supervision	Job Observations Field Rides and Job Monitoring	830	976	(146)	-15%
469	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL694 Wood To Steel	Non-RAMP	0	148	(148)	-100%
470	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	TL698 Monserate - Avocado Wood to Steel	Non-RAMP	148	296	(148)	-50%
471	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Contract & Maintenance	Non-RAMP	469	618	(150)	-24%
472	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Enterprise Command Center	Non-RAMP	2,138	2,289	(151)	-7%
473	SCG	O&M	2.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	SCG Director Org Effectiveness	Non-RAMP	1,610	1,761	(151)	-9%
474	SCG	O&M	2.A. Customer Services	Customer Services	CS Field Staff Manager	Policy Procedures Standards and ESCMP	811	963	(151)	-16%
475	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Construction Services	Non-RAMP	799	953	(154)	-16%
476	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Meteorology - Fire Behavior Modeling	Non-RAMP	0	157	(157)	-100%
477	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Operations Management & Training	Mandatory employee refresher training programs	724	887	(163)	-18%
478	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Substation SCADA Expansion-Distribution	Non-RAMP	227	391	(164)	-42%
479	SCG	O&M	2.A. Customer Services	Customer Services	Meter Reading - Clerical	Non-RAMP	-	166	(166)	-100%
480	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Field Operations Managers - USS	Non-RAMP	297	464	(167)	-36%
481	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Skills & Compliance Training	Ongoing maintenance programs	2,864	3,032	(168)	-6%
482	SCG	CAP	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Utility Operations Hardware - RAMP	Records Management	1,149	1,322	(173)	-13%
483	SDG&E	O&M	3.D. Administrative & General	Administrative & General	SECC Outside Services Employees - F923.1	Cybersecurity	1,126	1,304	(178)	-14%
484	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Measurement & Regulation	Maintenance - Maintenance and inspections of meter set assemblies (MSA) in the system.	5,401	5,580	(179)	-3%
485	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	District Ops Enterprise Geographic Information System Standards	Records Management	924	1,106	(182)	-16%

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486	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Infrast Prgrm Office	Non-RAMP	645	831	(185)	-22%
487	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP Incremental - Distributed Generation Interconnect	Power Quality Studies of DER Interconnections	46	233	(187)	-80%
488	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Capital Tools & Equipment - RAMP	Confined space air monitoring system for field personnel	81	268	(187)	-70%
489	SDG&E	O&M	2.D. Gas Transmission	Gas Transmission	Compression Station Operations	Non-RAMP	3,262	3,450	(188)	-5%
490	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Pipeline Operations	Training and Qualification Of Personnel	0	193	(193)	-100%
491	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Asset Management	Maintenance	0	193	(193)	-100%
492	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Portfolio Management	Non-RAMP	465	667	(202)	-30%
493	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Operations And Management	Non-RAMP	6,957	7,161	(204)	-3%
494	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Programs Pricing And Other Office	Natural Gas Appliance Testing (NGAT) is a safety-related program for Customer Assistance's Energy Savings Assistance (ESA) Program participants.	111	317	(206)	-65%
495	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Gas Scheduling	Non-RAMP	594	801	(207)	-26%
496	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Compressor Stations (BC 305)	Non-RAMP	0	210	(210)	-100%
497	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Gas System Integrity Staff & Programs	Non-RAMP	140	354	(214)	-60%
498	SDG&E	O&M	3.C. Support Services	Support Services	RE Resources	Non-RAMP	322	539	(217)	-40%
499	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Pipeline Safety & Compliance Manager	Non-RAMP	725	944	(219)	-23%
500	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Director IT SoCalGas Applications	Non-RAMP	576	796	(220)	-28%
501	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	SCG Apps Maj Mrk App - SCG	Non-RAMP	1,381	1,603	(222)	-14%
502	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Client Technology & Depot Services	Non-RAMP	1,592	1,815	(224)	-12%
503	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Employee Assistance Program (EAP) And Wellness Programs	Non-RAMP	97	322	(225)	-70%
504	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Compliance Management	Non-RAMP	2,357	2,587	(230)	-9%
505	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Critical Infrastructure Protection	Incremental maintenance costs associated with Grid Modernization capital projects	194	431	(237)	-55%
506	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Project Improvement Office-NCS	Non-RAMP	0	237	(237)	-100%
507	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Applications	Non-RAMP	289	529	(240)	-45%
508	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Field Technologies	Non-RAMP	215	459	(244)	-53%
509	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP Incremental On Ramp Aerial Light - Post Filing	Install Aerial Marking and Lighting	0	244	(244)	-100%
510	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL695 Talega Wood to Steel - RAMP Incremental	Inspection Repair Maintenance & Replacement Programs	0	246	(246)	-100%
511	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL649 Otay-San Ysidro-Border SW Pole Repl - RAMP Incremental	Inspection Repair Maintenance & Replacement Programs	0	246	(246)	-100%
512	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Organizational Effectiveness	Workforce Planning Efforts / Supervisor Effectiveness Program	0	247	(247)	-100%
513	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Troubleshooting	Non-RAMP	8,440	8,689	(249)	-3%
514	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Capital Tools & Equipment - RAMP	Prevention and Improvements	637	896	(259)	-29%
515	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Meteorology Outage Prediction Modeling p2	Non-RAMP	0	259	(259)	-100%
516	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Auxiliary Equipment - RAMP	Strain Gauge Installation Projects	35	299	(264)	-88%
517	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Infrastructure Eng & Ops Director	Non-RAMP	325	595	(271)	-45%
518	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Engineering Analysis Center - Chemical Lab	Non-RAMP	2,005	2,278	(272)	-12%

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519	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Dir Eng & Tech Services	Information Management Systems	58	334	(276)	-83%
520	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Gas Operations Training & Development	Expand "Situation City" training props at Pico Rivera campus	0	277	(277)	-100%
521	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Technology Utilization	Non-RAMP	1,079	1,361	(282)	-21%
522	SCG	O&M	2.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	SCG Director Safety & Wellness	Non-RAMP	324	611	(287)	-47%
523	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Tee Modernization Program	Non-RAMP	1,750	2,039	(289)	-14%
524	SDG&E	CAP	2.D. Gas Transmission	Gas Transmission	Compressor Stations (BC 435)	Non-RAMP	2,753	3,043	(290)	-10%
525	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Services Field - Supervision	Non-RAMP	1,289	1,585	(296)	-19%
526	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	TIMP Project Support	TIMP Data Maintenance	1,524	1,824	(300)	-16%
527	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Pipeline Materials	Non-RAMP	137	440	(303)	-69%
528	SCG	O&M	2.D. Administrative & General	Administrative & General	Accounting Systems & Compliance	Consulting expertise to improve records management program	658	962	(304)	-32%
529	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Integrated Test Facility	Non-RAMP	0	305	(305)	-100%
530	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Public Awareness	Non-RAMP	0	312	(312)	-100%
531	SCG	O&M	2.A. Customer Services	Customer Services	Environmental Affairs	Non-RAMP	403	716	(313)	-44%
532	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Portfolio Management	Non-RAMP	1	316	(315)	-100%
533	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	ESS Production Support	Non-RAMP	311	626	(316)	-50%
534	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	SCG Software Dev - Database	Non-RAMP	311	632	(321)	-51%
535	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Substation C&O	Condition Base Maintenance (CBM) - Distribution	0	321	(321)	-100%
536	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	Records Management	175	498	(323)	-65%
537	SDG&E	O&M	3.C. Support Services	Support Services	Environmental SDG&E NSS Cost Center	Non-RAMP	4,852	5,176	(324)	-6%
538	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Main Maintenance	Contracting for Traffic Control Delineation materials -- Distribution Only. Outside vendors	1,482	1,810	(328)	-18%
539	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Scalable Platform Servs - SCG	Non-RAMP	198	528	(331)	-63%
540	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Pipeline Engineering	Non-RAMP	412	743	(331)	-45%
541	SCG	O&M	2.A. Customer Services	Customer Services	Meter Reading - Support	Non-RAMP	0	341	(341)	-100%
542	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Telegraph Canyon 138/12kV Bank & C1226	Non-RAMP	0	345	(345)	-100%
543	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Asset Management	Operational Compliance and Oversight	0	345	(345)	-100%
544	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Compressor Station Operations	Non-RAMP	10,736	11,084	(349)	-3%
545	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Energy Markets & Capacity Products - Director	Non-RAMP	0	349	(349)	-100%
546	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Electric Distribution Tools/Equipment	Non-RAMP	1,701	2,052	(352)	-17%
547	SDG&E	O&M	3.D. Administrative & General	Administrative & General	Operations Cost Center -USS-Controllers-Business Controls	Consulting expertise to improve records management program	185	549	(364)	-66%
548	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	C1023 LI New 12KV Circuit & Reconductor C354	Non-RAMP	122	495	(373)	-75%
549	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Voice Enterp Support	Non-RAMP	175	551	(376)	-68%
550	SCG	O&M	1.G. Underground Storage	Underground Storage	Underground Storage	Internal Corrosion Plan	239	615	(376)	-61%
551	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Infrastructure Program Office	Non-RAMP	16	404	(388)	-96%
552	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Vault Restoration	Non-RAMP	0	388	(388)	-100%
553	SCG	O&M	2.A. Customer Services	Customer Services	Meter Reading - Supervision & Training	Non-RAMP	-	397	(397)	-100%
554	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Asset Management	Annual records management compliance	524	925	(401)	-43%
555	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Wells - RAMP Base - C5	Wellhead repairs & replacements	0	412	(412)	-100%
556	SDG&E	O&M	1.B. Electric Generation	Electric Generation	Generation Plant Miramar	Non-RAMP	2,172	2,587	(415)	-16%
557	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Substation 12kV Capacitor Upgrades	Non-RAMP	35	455	(420)	-92%

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558	SCG	O&M	2.A. Customer Services	Customer Services	CCC - Operations	Emergency Call Handling	536	957	(420)	-44%
559	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Shared Public Awareness Activities	Analysis	165	594	(429)	-72%
560	SDG&E	O&M	3.C. Support Services	Support Services	SDG&E Rents & Maintenance	Non-RAMP	17,539	17,976	(437)	-2%
561	SCG	O&M	1.C. Gas Engineering	Gas Engineering	High Pressure & Distribution Engineering	Non-RAMP	817	1,263	(447)	-35%
562	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Civil Structural & Hazard Mitigation Engineering	Gas Infrastructure Resilience & Vulnerability Report	(96)	358	(454)	-127%
563	SDG&E	O&M	1.C. Electric & Fuel Procurement	Electric & Fuel Procurement	Long Term Procurement	Non-RAMP	1,996	2,452	(456)	-19%
564	SCG	O&M	2.A. Customer Services	Customer Services	CI-Customer Assistance Programs	Non-RAMP	321	781	(460)	-59%
565	SCG	O&M	2.D. Administrative & General	Administrative & General	Health Benefits - Emp Assistance Program	Non-RAMP	333	798	(464)	-58%
566	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Construction Services	System Hardening and Grid Modernization	2,454	2,928	(475)	-16%
567	SDG&E	O&M	3.A. Customer Services	Customer Services	Credit & Collections	Non-RAMP	2,667	3,145	(478)	-15%
568	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Electronic Pressure Monitors (EPM)	Non-RAMP	560	1,038	(478)	-46%
569	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL697 San Luis Rey Wood to Steel - RAMP Incremental	Inspection Repair Maintenance & Replacement Programs	0	489	(489)	-100%
570	SCG	O&M	2.A. Customer Services	Customer Services	CCC - Operations	Update customer information for notification/access purposes	1,130	1,621	(491)	-30%
571	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Enterprise Integration Services	Non-RAMP	1,299	1,813	(514)	-28%
572	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Shared Software Development Contracts	Non-RAMP	6,337	6,856	(519)	-8%
573	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Tools Fittings & Materials	PPE and Safety Equipment - Uniform rentals for employees - both protective and for security	571	1,091	(520)	-48%
574	SCG	O&M	1.G. Underground Storage	Underground Storage	Underground Storage	Contract Security	918	1,444	(526)	-36%
575	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Technical Services	Engineering, Supervision, Oversight, and Compliance	820	1,354	(534)	-39%
576	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Gas Operations Training & Development	Non-RAMP	872	1,413	(541)	-38%
577	SDG&E	O&M	3.A. Customer Services	Customer Services	Advanced Metering Ops	Non-RAMP	8,586	9,150	(565)	-6%
578	SCG	O&M	2.A. Customer Services	Customer Services	Renewable Gas - Customer Outreach	Non-RAMP	490	1,055	(566)	-54%
579	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Wells - Cushion Gas Purchase	Non-RAMP	(0)	568	(568)	-100%
580	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Asset Management	Non-RAMP	1,839	2,449	(610)	-25%
581	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Borrego Microgrid 3.0	Non-RAMP	435	1,056	(621)	-59%
582	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Asset Management	Non-RAMP	1,269	1,893	(624)	-33%
583	SCG	O&M	1.C. Gas Engineering	Gas Engineering	MRC Standards	Non-RAMP	176	807	(632)	-78%
584	SDG&E	O&M	2.C. Gas System Integrity	Gas System Integrity	Damage Prevention and Public Awareness	Public Awareness	45	684	(638)	-93%
585	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Land Services & Right Of Way	Non-RAMP	3,363	4,003	(640)	-16%
586	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Enterprise Geographic Information System (eGIS)	Operational Compliance and Oversight	0	642	(642)	-100%
587	SDG&E	O&M	2.C. Gas System Integrity	Gas System Integrity	Codes Standards and Records	Information Management Systems	0	658	(658)	-100%
588	SDG&E	O&M	3.C. Support Services	Support Services	RE Planning	Non-RAMP	490	1,164	(674)	-58%
589	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	USS - VP Gas System Integrity	Non-RAMP	0	696	(696)	-100%
590	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Reliability/Improvements Capital Projects	Non-RAMP	1,218	1,915	(698)	-36%
591	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Voice Leased Circuits	Non-RAMP	370	1,069	(699)	-65%
592	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	CI Compute Provisioning SCG	Non-RAMP	0	706	(706)	-100%
593	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Kearny Operations Services	Non-RAMP	1,480	2,192	(713)	-33%
594	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	RAMP Base - Annual Pole Reinforcement (WMP)	GO165: Distribution Inspect and Repair program	10,053	10,783	(730)	-7%
595	SCG	O&M	2.A. Customer Services	Customer Services	Meter Reading - Operations	Non-RAMP	487	1,223	(736)	-60%

Attachment B
Sempra RSAR Programs Ranked by Spending Variance

596	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	NCW New Bank 32 RAMP Incremental - Undergrounding New Circuits	Underground-ing	0	746	(746)	-100%
597	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Sewage Pump Station Rebuilds RAMP Incremental	Rebuild and repair aging infrastructure	0	746	(746)	-100%
598	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Programs Pricing And Other Office	Non-RAMP	6,021	6,790	(769)	-11%
599	SCG	O&M	2.A. Customer Services	Customer Services	Meter Reading - Operations	Manual Meter Reads for Atmospheric Corrosion Inspections	487	1,258	(772)	-61%
600	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	SCG Work Management Services	Non-RAMP	561	1,341	(781)	-58%
601	SCG	CAP	2.C. Support Services	Support Services	Safety/Environmental	Non-RAMP	758	1,564	(806)	-52%
602	SCG	O&M	2.C. Support Services	Support Services	Facility Operations	Additional Security Guards	67	880	(813)	-92%
603	SCG	CAP	1.C. Gas Engineering	Gas Engineering	Laboratory Equipment - RAMP	Odorization	2,009	2,827	(819)	-29%
604	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Services Field - Support	Non-RAMP	1,890	2,718	(828)	-30%
605	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	SF6 Switch Replacement	Replace with new technology	2,654	3,494	(840)	-24%
606	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Technical Services	Class Location Mitigation	0	865	(865)	-100%
607	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Public Awareness	Public Awareness	666	1,538	(871)	-57%
608	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	TL676 Mission to Mesa Heights Reconductor	Non-RAMP	14	887	(873)	-98%
609	SCG	O&M	2.A. Customer Services	Customer Services	Energy & Environmental Policy	Non-RAMP	941	1,815	(874)	-48%
610	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Operator Qualification	Operations	0	879	(879)	-100%
611	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Cathodic Protection	Non-RAMP	0	879	(879)	-100%
612	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Tech Solutions and Reliability	Records Management	533	1,416	(882)	-62%
613	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	RAMP Base - Wireless Fault Indicators	Design and Engineering Approaches	837	1,726	(888)	-51%
614	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Cathodic Protection	Requirements for Corrosion Control	16,449	17,338	(889)	-5%
615	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Measurement & Regulation	Non-RAMP	8,573	9,474	(902)	-10%
616	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Quality & Risk	Operational Compliance and Oversight	430	1,344	(914)	-68%
617	SDG&E	O&M	3.C. Support Services	Support Services	SDG&E Facility Operations	Physical Security	2,985	3,915	(930)	-24%
618	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Field Support	Contractor Management and Traffic Control	695	1,629	(934)	-57%
619	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Enterprise Geographic Information System (eGIS)	Non-RAMP	1,244	2,182	(938)	-43%
620	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Wells - RAMP Base - C3	Tubing upsizing	16	962	(946)	-98%
621	SCG	O&M	2.C. Support Services	Support Services	Facilities GCT	Non-RAMP	724	1,674	(950)	-57%
622	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Civil Structural & Hazard Mitigation Engineering	Non-RAMP	147	1,099	(952)	-87%
623	SCG	O&M	1.C. Gas Engineering	Gas Engineering	MRC - Instrumentation Repair and Field Support	Non-RAMP	506	1,466	(960)	-66%
624	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Management of Overhead Distribution Service	Non-RAMP	6,510	7,471	(961)	-13%
625	SCG	O&M	2.D. Administrative & General	Administrative & General	SECC Outside Services Employees - F923.1	Cybersecurity	1,415	2,377	(962)	-40%
626	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT M&R Stations	Non-RAMP	16,919	17,893	(974)	-5%
627	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Civil Structural & Hazard Mitigation Engineering	Monitoring of Land Movement & Flood zones	222	1,207	(985)	-82%
628	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Applications NSS	Non-RAMP	7,814	8,807	(993)	-11%
629	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Records Management - From 2200-2361	Policy Procedures Standards and ESCMP	0	996	(996)	-100%
630	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Operations Management & Training	Non-RAMP	1,923	2,926	(1,003)	-34%
631	SDG&E	CAP	2.A. Gas Distribution	Gas Distribution	Cathodic Protection System Enhancement	Non-RAMP	0	1,005	(1,005)	-100%
632	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Regional Public Affairs	Non-RAMP	3,919	4,928	(1,009)	-20%
633	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Operations And Management	Policy, Procedures, Standards and ESCMP	0	1,022	(1,022)	-100%
634	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Asset Management	Utility Asset Management (Non-WMP)	1,360	2,404	(1,043)	-43%
635	SCG	O&M	2.A. Customer Services	Customer Services	Customer Services Field - Operations	PPE and Tools	2,403	3,453	(1,049)	-30%

Attachment B
Sempra RSAR Programs Ranked by Spending Variance

636	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Telecom Field Voice - SDG&E	Non-RAMP	1,186	2,243	(1,057)	-47%
637	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Replace Obsolete Substation Equipment - RAMP	Substation rebuild/replacements based on operational significance and SDG&E reliability standards	4,126	5,197	(1,072)	-21%
638	SDG&E	CAP	2.A. Gas Distribution	Gas Distribution	GD Local Engineering Pool	Improvements to Cathodic Protection reliability	120	1,197	(1,078)	-90%
639	SCG	O&M	1.G. Underground Storage	Underground Storage	Storage Risk Management	Non-RAMP	1,184	2,270	(1,086)	-48%
640	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	AB2868 Energy Storage	Non-RAMP	(1,100)	0	(1,100)	100%
641	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Gas Regulators	Non-RAMP	5,440	6,547	(1,107)	-17%
642	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	Utility Asset Management - (WMP)	175	1,294	(1,119)	-86%
643	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Wrk Mgmt & Databases	Non-RAMP	674	1,833	(1,159)	-63%
644	SCG	CAP	1.G. Underground Storage	Underground Storage	GS - Playa Del Rey	Erosion mitigation	202	1,387	(1,185)	-85%
645	SDG&E	O&M	3.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	Safety, Wellness & Disability Services	Safety Training, Workshops and campaigns	199	1,394	(1,195)	-86%
646	SCG	O&M	1.G. Underground Storage	Underground Storage	Underground Storage	Maintenance work performed on gas storage wells	3,352	4,559	(1,207)	-26%
647	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Electric Meters & Regulators	Non-RAMP	2,578	3,792	(1,214)	-32%
648	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Gas Energy Measurement Systems (GEMS)	Non-RAMP	215	1,447	(1,233)	-85%
649	SDG&E	O&M	3.C. Support Services	Support Services	HQ Rent & Facilities Maintenance	Non-RAMP	1,201	2,435	(1,233)	-51%
650	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	DIMP Project Support	DIMP Data Maintenance	573	1,815	(1,242)	-68%
651	SCG	O&M	1.C. Gas Engineering	Gas Engineering	Meter Shop & Records	Non-RAMP	1,433	2,697	(1,263)	-47%
652	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Electric Distribution Grid Analytics	Non-RAMP	0	1,282	(1,282)	-100%
653	SCG	O&M	2.C. Support Services	Support Services	Fabrication & Repair	Non-RAMP	2,305	3,611	(1,306)	-36%
654	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP Base — Annual Pole Reinforcement (Non-WMP)	GO165: Distribution Inspect and Repair program	7,431	8,773	(1,342)	-15%
655	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Los Coches Substation 138/69kV Rebuild	Non-RAMP	0	1,357	(1,357)	-100%
656	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Pipeline System Construction Policy	Locate & Mark Activities	0	1,357	(1,357)	-100%
657	SDG&E	O&M	1.A. Electric Distribution	Electric Distribution	Tech Solutions and Reliability	Non-RAMP	826	2,194	(1,367)	-62%
658	SCG	CAP	3.B. Balanced Programs Direct Capital Expenses	Balanced Programs Direct Capital Expenses	TIMP - Dist	ILI & ECDA - cleaning and assessing internal conditions of high-pressure pipelines	3,473	4,844	(1,371)	-28%
659	SCG	O&M	1.B. Gas Control & System Operations	Gas Control & System Operations	Emergency Services	Safety, Wellness and Emergency Services Support	1,626	2,998	(1,372)	-46%
660	SCG	CAP	2.C. Support Services	Support Services	Bakersfield Multi-Use Facility	Non-RAMP	925	2,313	(1,388)	-60%
661	SDG&E	O&M	3.A. Customer Services	Customer Services	Marketing Research & Analytics	Non-RAMP	6,974	8,398	(1,424)	-17%
662	SDG&E	O&M	2.D. Gas Transmission	Gas Transmission	Pipeline Operations	Non-RAMP	534	1,976	(1,442)	-73%
663	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	OIR Worst Circuits	Non-RAMP	0	1,458	(1,458)	-100%
664	SCG	O&M	1.D. Gas Major Projects	Gas Major Projects	Major Projects Management & Outreach	Real-time pressure data and providing remote control to high priority distribution sites.	46	1,556	(1,510)	-97%
665	SCG	O&M	2.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	SCG Director Org Effectiveness	Knowledge Management and Training Strategy	950	2,497	(1,547)	-62%
666	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Borrego Microgrid 2.0	Non-RAMP	0	1,572	(1,572)	-100%
667	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Technical Services	Class Location (Hydrotest)	0	1,586	(1,586)	-100%
668	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Software Dev - Database Administrator	Non-RAMP	682	2,269	(1,588)	-70%
669	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Compressor Stations (BC 325)	Non-RAMP	0	1,667	(1,667)	-100%
670	SCG	O&M	2.A. Customer Services	Customer Services	CCC - Support	Non-RAMP	8,143	9,847	(1,704)	-17%
671	SDG&E	O&M	1.C. Electric & Fuel Procurement	Electric & Fuel Procurement	Trading & Scheduling	Non-RAMP	1,544	3,276	(1,732)	-53%
672	SCG	O&M	2.A. Customer Services	Customer Services	MSA Inspection Program	Non-RAMP	5,492	7,238	(1,746)	-24%
673	SCG	O&M	2.A. Customer Services	Customer Services	CI-Customer Strategy and Engagement -	Non-RAMP	6,093	7,854	(1,761)	-22%
674	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Managed Services Voice Enterprise	Non-RAMP	856	2,629	(1,773)	-67%

Attachment B
Sempra RSAR Programs Ranked by Spending Variance

675	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Records Management - From 2200-2361	Operational Compliance and Oversight	0	1,825	(1,825)	-100%
676	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Ramp Base - Install SCADA on Line Capacitors	Expand and Maintain Distribution Advanced SCADA infrastructure	1,032	2,881	(1,849)	-64%
677	SCG	CAP	1.F. Gas Transmission	Gas Transmission	Gas Transmission New Pipeline	Non-RAMP	3,827	5,691	(1,864)	-33%
678	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Locate & Mark	Locate & Mark Activities	14,265	16,144	(1,879)	-12%
679	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Twin Engine Helicopter	Purchase a Twin-Engine Helicopter	1	1,929	(1,928)	-100%
680	SDG&E	CAP	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT - Enterprise - Application	Records Management	7,501	9,430	(1,929)	-20%
681	SCG	O&M	2.A. Customer Services	Customer Services	CI-Customer Assistance Programs	Natural Gas Appliance Testing (NGAT) ¹	1,064	3,000	(1,936)	-65%
682	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Transformers	Non-RAMP	21,571	23,510	(1,939)	-8%
683	SCG	O&M	2.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	SCG Director HR Services	Workforce Planning - Software/Program Implementation.	726	2,668	(1,942)	-73%
684	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Rebuild Pt Loma Substation	Non-RAMP	0	1,946	(1,945)	-100%
685	SCG	O&M	2.A. Customer Services	Customer Services	Advanced Meter Operations	Non-RAMP	9,074	11,031	(1,957)	-18%
686	SDG&E	CAP	2.D. Gas Transmission	Gas Transmission	GT Replacements	HCA Class Location Follow-up Mitigation	0	1,969	(1,969)	-100%
687	SDG&E	O&M	2.A. Gas Distribution	Gas Distribution	Field O&M - Supervision & Training	Safety Policies & Programs	112	2,088	(1,976)	-95%
688	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Cathodic Protection	Non-RAMP	(0)	2,034	(2,034)	-100%
689	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP Base - Condition Based Maintenance - Smart Grid	Conditioned Based Monitoring System	1	2,113	(2,112)	-100%
690	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Purification	Non-RAMP	6,491	8,612	(2,120)	-25%
691	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Remote Meter Reading	Non-RAMP	(51)	2,214	(2,265)	-102%
692	SDG&E	CAP	2.A. Gas Distribution	Gas Distribution	GD Local Engineering Pool	Safety policies and Programs	296	2,690	(2,394)	-89%
693	SDG&E	O&M	3.A. Customer Services	Customer Services	Customer Services Field - Operations	Non-RAMP	9,900	12,367	(2,467)	-20%
694	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Ocean Ranch 69/12KV Substation	Non-RAMP	528	3,012	(2,484)	-82%
695	SCG	O&M	2.C. Support Services	Support Services	Environmental	Non-RAMP	2,351	4,874	(2,523)	-52%
696	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Pipeline Safety & Compliance	Operational Compliance and Oversight	0	2,556	(2,556)	-100%
697	SDG&E	CAP	1.B. Electric Generation	Electric Generation	Solar Photovoltaic Initiative	Non-RAMP	0	2,577	(2,577)	-100%
698	SDG&E	CAP	2.D. Gas Transmission	Gas Transmission	New Gas Transmission Pipeline	Non-RAMP	0	2,659	(2,659)	-100%
699	SCG	O&M	2.A. Customer Services	Customer Services	Customer Services Field - Support	Non-RAMP	12,901	15,561	(2,660)	-17%
700	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP Incremental Capital Restoration of Service	Capital improvements	7,567	10,245	(2,678)	-26%
701	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Rebuild Kearny 69/12kv Substation	Non-RAMP	110	2,798	(2,688)	-96%
702	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Pipelines - RAMP Base	Combat land movement through ground stabilization projects in both Gas Transmission and Gas Storage.	1,726	4,420	(2,694)	-61%
703	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Cathodic Protection	Non-RAMP	0	2,745	(2,745)	-100%
704	SDG&E	O&M	3.A. Customer Services	Customer Services	Marketing Research & Analytics	Safety Communications (Wire Down)	3,796	6,671	(2,875)	-43%
705	SDG&E	O&M	1.B. Electric Generation	Electric Generation	Generation Plant Desert Star	Non-RAMP	13,820	16,712	(2,892)	-17%
706	SDG&E	CAP	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT - Enterprise - Network - RAMP	Records Management	0	2,931	(2,931)	-100%
707	SCG	O&M	1.H. PSEP	Pipeline Safety Enhancement Plan	Pipeline Safety Enhancement Program-PMO Costs	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines	1,383	4,369	(2,987)	-68%
708	SCG	CAP	1.F. Gas Transmission	Gas Transmission	Gas Transmission Cathodic Protection	Non-RAMP	0	3,140	(3,140)	-100%
709	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Auxiliary Equipment - RAMP	Operational Resiliency	0	3,167	(3,167)	-100%
710	SCG	CAP	1.D. Major Projects	Major Projects	Distribution Operations Control Center (DOCC)	Gas Control Operation	1,610	4,825	(3,215)	-67%
711	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	New Vine 69/12KV Substation	Non-RAMP	4	3,260	(3,256)	-100%
712	SDG&E	CAP	3.C. Support Services	Support Services	Remodel/Relocate/Reconfig Blanket	Modernization of Grid Control Centers	0	3,345	(3,345)	-100%
713	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Supply Line Replacements	Non-RAMP	237	3,773	(3,535)	-94%
714	SDG&E	CAP	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	Customer Services	Non-RAMP	4,812	8,384	(3,572)	-43%
715	SDG&E	O&M	3.D. Administrative & General	Administrative & General	Risk Management	Non-RAMP	589	4,233	(3,644)	-86%
716	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Field Support	Maintenance - Pipeline observation "Standby" (From Field Support)	0	3,675	(3,675)	-100%

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Sempra RSAR Programs Ranked by Spending Variance

717	SCG	O&M	2.E. Human Resources Dept, Safety, LTD & WC	Human Resources Dept, Safety, LTD & WC	SCG Director Safety & Wellness	HR sponsored employee contractor customer & public safety activities.	5,183	8,928	(3,745)	-42%
718	SCG	O&M	1.A. Gas Distribution	Gas Distribution	Service Maintenance	Non-RAMP	13,835	17,600	(3,765)	-21%
719	SCG	O&M	2.A. Customer Services	Customer Services	Customer Services Field - Operations	Safety-related field Orders, Field Employee meetings and Training	37,018	40,941	(3,923)	-10%
720	SCG	O&M	1.E. Gas System Integrity	Gas System Integrity	Gas Contractor Controls	Contractor Management and Traffic Control	0	4,256	(4,256)	-100%
721	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Gas TIMP/DIMP	TIMP ILI/ECDA	3818	8235.647258	-4417.647258	-0.54
722	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Gas TIMP/DIMP	Programs in place to minimize integrity risks to distribution pipelines and minimize infrastructure damage.	2,118	6,591	(4,473)	-68%
723	SDG&E	O&M	1.B. Electric Generation	Electric Generation	Generation Plant Palomar	Non-RAMP	15,303	20,234	(4,931)	-24%
724	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Underground Storage - RSIMP	SIMP RAMP	15,924	20,861	(4,936)	-24%
725	SCG	CAP	2.A. Advanced Meter	Advanced Meter	Advanced Meter	Non-RAMP	0	5,312	(5,312)	-100%
726	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Applications NSS	Non-RAMP	13,707	19,244	(5,537)	-29%
727	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT&OTI Contracts SS	Non-RAMP	5,762	11,446	(5,684)	-50%
728	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Advanced Energy Storage	Non-RAMP	167	6,089	(5,922)	-97%
729	SDG&E	O&M	3.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Infrastructure NSS	Non-RAMP	6,811	13,276	(6,465)	-49%
730	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Gas Meters	Non-RAMP	21,097	27,872	(6,775)	-24%
731	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Pipeline Relocations - Freeway	Non-RAMP	1,995	8,859	(6,864)	-77%
732	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Regulator Stations	Non-RAMP	4,573	11,730	(7,157)	-61%
733	SCG	O&M	1.F. Gas Transmission	Gas Transmission	Pipeline Operations	Non-RAMP	3,887	11,055	(7,168)	-65%
734	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Adv Protect & SCADA Upgrade	Inspection Repair Maintenance & Replacement Programs	0	7,471	(7,471)	-100%
735	SCG	O&M	2.B. Information Technology & Cyber Security	Information Technology & Cyber Security	IT Infrastructure NSS	Non-RAMP	6,961	14,615	(7,655)	-52%
736	SCG	O&M	2.A. Customer Services	Customer Services	CCC - Operations	Non-RAMP	22,282	30,580	(8,298)	-27%
737	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	RAMP Base - Cable Replacement	Proactive cable replacement	9,678	18,150	(8,473)	-47%
738	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	CNF - RAMP	System Hardening	0	9,359	(9,359)	-100%
739	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Compressor Stations	Non-RAMP	10,160	19,949	(9,789)	-49%
740	SCG	CAP	1.H. PSEP	Pipeline Safety Enhancement Program	PSEP PMO - RAMP	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines	368	10,613	(10,245)	-97%
741	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Wildfire Mitigation Program	Inspection and Preventative Maintenance	2,053	12,519	(10,466)	-84%
742	SCG	CAP	1.H. PSEP	Pipeline Safety Enhancement Program	PSEP Hydrotest Capital	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines	7,919	19,800	(11,880)	-60%
743	SCG	O&M	2.A. Customer Services	Customer Services	Customer Services Field - Operations	Non-RAMP	69,086	81,246	(12,160)	-15%
744	SDG&E	CAP	1.A. Electric Distribution	Electric Distribution	Elect Integrity - RAMP (Non-WMP)	Wire Correction, Switch Replacement and Underground Connector Upgrade Program	0	12,339	(12,339)	-100%
745	SCG	CAP	1.G. Underground Storage	Underground Storage	GS Wells - RAMP Base - C1	Well replacements	6,144	19,225	(13,081)	-68%
746	SCG	CAP	1.F. Gas Transmission	Gas Transmission	GT Replacement Pipelines	Non-RAMP	6	14,419	(14,413)	-100%
747	SCG	CAP	1.A. Gas Distribution	Gas Distribution	Main Replacements	Non-RAMP	21,155	35,804	(14,649)	-41%
748	SDG&E	CAP	4.B. Balanced Program Direct Capital Expenses	Balanced Program Direct Capital Expenses	Local Engineering Pool - Substation	Non-RAMP	3,621	22,864	(19,243)	-84%
749	SCG	CAP	3.B. Balanced Programs Direct Capital Expenses	Balanced Programs Direct Capital Expenses	DIMP	DIMP Programs - High Pressure Risk	1,686	22,290	(20,604)	-92%

Attachment B
Sempra RSAR Programs Ranked by Spending Variance

750	SCG	CAP	1.H. PSEP	Pipeline Safety Enhancement Program	PSEP Pipeline Replacement - RAMP	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines	37,764	66,414	(28,650)	-43%
751	SCG	O&M	1.H. PSEP	Pipeline Safety Enhancement Plan	Pipeline Safety Enhancement Program	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines	20,441	57,813	(37,371)	-65%
752	SCG	CAP	1.H. PSEP	Pipeline Safety Enhancement Program	PSEP Valve Projects - RAMP	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines	42,346	80,128	(37,782)	-47%
753	SDG&E	O&M	4.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	Gas TIMP/DIMP	TIMP - ECDA (ASSESSMENT PROJECTS)				
754	SCG	O&M	2.A. Customer Services	Customer Services	Meter Reading - Operations	Manual Meter Reads for Atmospheric Corrosion Inspections				
755	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	TIMP	ILI & ECDA - cleaning and assessing internal conditions of high-pressure pipelines				
756	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	TIMP	ILI & ECDA - cleaning and assessing internal conditions of high-pressure pipelines				
757	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	DIMP	DIMP Programs (e.g., DREAMS, GIPP)				
758	SCG	O&M	3.A. Balanced Program Direct O&M Expenses	Balanced Program Direct O&M Expenses	DIMP	DIMP Programs (e.g., DREAMS, GIPP)				
759	SCG	CAP	3.B. Balanced Programs Direct Capital Expenses	Balanced Programs Direct Capital Expenses	SIMP Total	Well Integrity Management inclusive of inspection of wells, plugging and abandonment, data management, etc.				