DATE RECEIVED: NOVEMBER 9, 2017 DATE RESPONDED: DECEMBER 7, 2017

Exhibit Reference: SDG&E-14 SDG&E Witness: Alan F. Colton

Subject: Insufficiency of SDG&E workpapers to support reasonableness review, part 2

Please provide the following:

- 1. Provide the following for each project or program in Category A, D, G, H, and J, as defined by a line item in the "Index of Workpapers" for Exhibit SDG&E-14-CWP, for which SDG&E has used a "zero-based" forecast methodology (refer to Slide 16 of SDG&E's presentation from the GRC workshop held at the CPUC on November 1, 2017):
 - a. For projects or programs with any recorded or forecast non-CPUC jurisdictional expenditures, provide the total (CPUC plus non-CPUC jurisdictional) recorded and forecast expenditures,
 - b. Total annual expenditures, recorded and forecast, including contributions from developers, municipalities, or other entities except for SDG&E ratepayers,
 - c. History of the project or program from the date it was first proposed to the CPUC for cost recovery, including key milestones, authorized budgets, and recorded expenditures,
 - d. Overall plan for the program including objectives, goals, planned duration, scope in terms of equipment to be included vs. excluded (e.g., all 12 kV will eventually updated per program XYZ),
 - e. The rational SDG&E uses to prioritize specific projects within the overall program, and the resulting schedule of implementation,
 - f. Scope per project in terms of specific work performed at each location,
 - g. Scope or pace of the program per year in terms of projects per year or any other indicator of annual scope of work performed,
 - h. Information on the contingency rate(s) used and which components of the cost forecast they apply to,
 - i. Analysis supporting the purported need for the program or project, including the year of forecast need.
 - j. Recorded annual units of labor and corresponding unit costs, the sum product of which agrees with values in the workpapers,
 - k. Forecast annual units of labor and corresponding unit costs, the sum product of which agrees with values in the workpapers,
 - 1. Recorded annual units of material and other non-labor units and corresponding unit costs, the sum product of which agrees with values in the workpapers,

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QUESTION 1: CONTINUED-

- m. Forecast annual units of material and other non-labor units and corresponding unit costs, the sum product of which agrees with values in the workpapers,
- n. Recorded annual "NSE" units and corresponding unit costs, the sum product of which agrees with values in the workpapers,
- o. Forecast annual "NSE" units and corresponding unit costs, the sum product of which agrees with values in the workpapers,
- p. Overhead rates and how they are applied to labor, non-labor, and NSE forecasts,
- q. Cost estimate class per AACE International Recommended Practice No. 18R-97. If SDG&E does not use the AACE classification system, provide the classification standard used by SDG&E and provide the cost estimate class for each project or program.

SDG&E Response 1:

Within the categories requested of A, D, G, H, and J (Capacity/Expansion, Mandated, Overhead Pools, Reliability/Improvements and DER Integration, respectively) there are 66 individual budget workpaper sets, of which 49 are derived from a 'zero-based' forecasting method. Because of the number of additional questions requested of each and the quantity of budget workpapers involved, SDG&E is providing a sample below for a budget found in Category H. SDG&E proposes to provide similar responses for each of the relevant budgets in batches as they can be produced through Dec. 22.

The sample below is for a budget workpaper set in the Category H Reliability/Improvements, Budget 17253 – Electric Distribution Grid Analytics.

Category H

17253 – Electric Distribution Grid Analytics

a. Below are the forecasted expenditures in thousands of 2016 dollars.

Description	Adjusted	2018 Forecasted	2019 Forecasted
	Adjusted recorded	(CPUC + Non-	(CPUC + Non-
		CPUC)	CPUC)
Labor	0	1,100	1,100
Non-labor	0	2,200	2,200
Total	0	3,300	3,300

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SDG&E Response 1:CONTINUED

- b. There are no expenditures for this budget that are unrelated to SDG&E's ratepayers.
- c. There is no history of this budget as this is the first cycle this budget is being proposed.
- d. The overall plan and scope for this budget is to consolidate data sources from different functional areas allowing operations to create operational reports and dashboards for reliability, storm, and day to day management. These applications would provide data to management for decision making. The project will pull data from various SDG&E data sources and software applications including ServiceNow, SCADA, NMS, Customer (AMI), EDW, GIS, Click, SAP financials, Cascade, and DERMS. The overall scope is to build dashboards and generate reports that include real time outages (electric and communications), alarms, trends, predictive, SAIDI and SAIFI and correlation with asset history and failure data.
- e. This budget does not contain multiple projects therefore there is no rationale of prioritization of projects.
- f. Work within this budget will be performed at multiple SDG&E facilities. The scope of the project is described in 3-d above.
- g. The scope per year I described in 3-d above.
- h. A 10% contingency is used for labor and non-labor in anticipation of any unplanned requirements or system complexities.
- This budget would consolidate data sources from different functional areas allowing operations to create operational reports and dashboard for reliability, storm, and day to day management. These applications would provide data to management for decision making.
- j. There are no recorded annual units of labor and corresponding unit costs in this budget.

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SDG&E Response 1:CONTINUED

- k. The Forecast annual units of labor is shown in 1-a above.
- 1. There are no recorded annual units of material and other non-labor units in this budget.
- m. The forecast of annual units of material and other non-labor units and corresponding unit costs are shown in 1-a above.
- n. There are no recorded annual "NSE" units in this budget.
- o. The forecasted annual "NSE" units and corresponding unit costs for this budget is \$0.
- p. There are no overhead rates for this budget.
- q. SDG&E does not use the AACE cost estimating system. The format for the cost estimates for each project may vary from category to category, or even between budgets within a given category. In some cases, circumstances necessitate using historical unit cost information and applying that unit cost to the forecasted amount of work; in other cases, circumstances necessitate using comprehensive cost estimating programs that utilize current labor rates, the latest material costs, and other known costs to develop their estimates and applying that unit cost to the forecasted amount of work.

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- 2. Where line items in the "Index of Workpapers" for Exhibit SDG&E-14-CWP are for a single project, regardless of the forecast methodology used by SDG&E, provide the following project specific data in addition to the information requested above:
 - a. Project address or GPS coordinates if no address is applicable or available,
 - b. Forecast need date,
 - c. Planned operational date,
 - d. Analysis supporting the purported need for the project by the planned need date, for example results of load flow analysis,
 - e. Best available information on which elements of the project (e.g., project Management, engineering, planning, construction, etc.) will be performed by SDG&E staff, Sempra staff, or subcontractors,
 - f. Bids or estimates provided by subcontractors,
 - g. Existing layout and one-line drawings that illustrate the scope of the project,
 - h. Bill of materials, including but not limited to the specific equipment listed in the "physical description" section of the workpaper,
 - i. Analysis of alternatives, including DER-based alternatives,
 - j. Project schedule,
 - k. Annual capital expenditures prior to 2012, for any projects with capital expenditures prior to 2012. (For example, the Salt Creek Substation has significant expenditures for 2012, and the workpapers do not indicate that the project began in 2012 or before.)
 - 1. Annual capital expenditures after 2019, for any projects with forecast capital expenditures after 2019. (For example, the Jamacha New Bank and 12 kV Circuit project has significant expenditures for 2019, and it is not clear if the project is completed in 2019 or not.)
 - m. Total project budget, with non-CPUC jurisdictional and third party funded scope identified,
 - n. Current project status in terms of budget performance for all projects with an approved budget.

SDG&E Response 2:

SDG&E broadly describes these budgets as either "blanket budgets" or "specific budgets." Blanket budgets are those consisting of many like-kind items such as poles and transformers in which the specific asset to be replaced is not identified, and which are generally forecasted using trends or averages. Specific budgets are dedicated to a single facility or asset such as a substation or circuit addition, and are generally estimated using zero-based methods or from similar work performed on other assets.

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SDG&E Response 2:CONTINUED

Within the workpapers SDG&E-14-CWP are contained 116 budgets, or workpaper sets. Of these, 41 are "specific" budgets, which SDG&E interprets to be responsive to this question. Because of the number of additional questions requested of each and the quantity of budget workpapers involved, SDG&E is providing a sample below for three budgets found in Category C. SDG&E proposes to provide similar responses for each of the relevant budgets in batches as they can be produced through Dec. 22.

The samples below are for budget workpaper sets in the Category C – Franchise:

CATEGORY C

17250 - Pacific Avenue 20B Conversion Phase 2

- a. The project address is Pacific Avenue, between Ocean and Helix in Solana Beach,
 CA.
- b. The forecast need date is March 2018.
- c. The planned operational date is November 2018.
- d. The need for this project is driven by a customer request, the City of Solana Beach, to convert overhead lines to underground lines. The operational date has been negotiated with the customer.
- e. Elements of the project being performed by SDG&E staff or SDG&E subcontractors include all planning and engineering. Construction will likely be constructed by contracted resources, potentially through the City of Solana Beach.
- f. At the current time, bids have not been submitted for this project, but SDG&E internally estimates the cost for the project to be \$4M of which approximately \$2.8M will be billed to the City of Solana Beach.
- g. There are no existing layout drawings as the new underground route is under design.
- h. The bill of materials has not been developed yet.
- i. An alternatives analysis was not completed as the boundaries of the customerrequested undergrounding project fulfill the criteria of a Tariff Rule 20B scope.

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SDG&E Response 2:CONTINUED

- j. The project is currently in planning, design, and engineering with an expected design completion in Q1 of 2018; construction estimated to start in March 2018 with construction completion scheduled for Q4 2018.
- k. There were no capital expenditures prior to 2012.
- All capital expenditures are expected to be fully captured by Q1 2019 (\$4M estimated project with \$1.2M expended by SDG&E ratepayers; \$2.8M billed to City of Solana Beach).
- m. Total project budget of \$4M of which \$1.2M expended by ratepayers and \$2.8M billed to the city as non-CPUC jurisdictional costs.
- n. No project costs have been spent to date,

17251 – Espola Rd 20B Conversion

- a. The project address is Ridgeview Place to North Crest Lane in Poway, CA.
- b. The forecast need date is January 2018.
- c. The planned operational date is December 2018.
- d. The need for this project is driven by a customer request, the City of Poway, to convert overhead lines to underground lines. The operational date has been negotiated with the customer.
- e. Elements of the project being performed by SDG&E staff or SDG&E subcontractors include all planning and engineering. Construction will likely be constructed by contracted resources, potentially through the City of Poway.
- f. SDG&E internally estimates the cost for the project to be \$1.2M of which approximately \$840K will be billed to the City of Poway.
- g. There are no existing layout drawings as the new underground route is under design.
- h. The bill of materials has not been developed yet.
- i. An alternatives analysis was not completed as the boundaries of the customerrequested undergrounding project fulfill the criteria of a Tariff Rule 20B scope.

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SDG&E Response 2:CONTINUED

- j. The project is currently in planning, design, and engineering with an expected design completion in Q1 of 2018; construction estimated to start in January 2018 with construction completion scheduled for Q4 2018.
- k. There were no capital expenditures prior to 2012.
- All capital expenditures are expected to be fully captured by Q1 2019 (\$1.2M estimated project with \$360K expended by SDG&E ratepayers; \$840K billed to City of Poway).
- m. Total project budget of \$1.2M of which \$360K expended by ratepayers and \$840K billed to the city as non-CPUC jurisdictional costs.
- n. No monies have been spent to date.

17252 – South Santa Fe Drive 20B Conversion Phase 2

- a. The project address is Oceanview Drive to Civic Center Drive in Vista, CA.
- b. The forecast need date is January 2018.
- c. The planned operational date is January 2019.
- d. The need for this project is driven by a customer request, the City of Vista, to convert overhead lines to underground lines. The operational date has been negotiated with the customer.
- e. Elements of the project being performed by SDG&E staff or SDG&E contractors include all planning and engineering. Construction will likely be constructed by contracted resources, potentially through the City of Vista.
- f. SDG&E internally estimates the cost for the project to be \$2M of which approximately \$1.4M will be billed to the City of Vista.
- g. There are no existing layout drawings as the new underground route is under design.
- h. The bill of materials has not been developed yet.
- i. An alternatives analysis was not completed as the boundaries of the customerrequested undergrounding project fulfill the criteria of a Tariff Rule 20B scope.

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SDG&E Response 2:CONTINUED

- j. The project is currently in planning, design, and engineering with an expected design completion in Q1 of 2018; construction estimated to start in January 2018 with construction completion scheduled for January 2019.
- k. There were no capital expenditures prior to 2012.
- 1. All capital expenditures are expected to be fully captured by Q1 2019 (\$2M estimated project with \$600K expended by SDG&E ratepayers; \$1.4M billed to City of Vista).
- m. Total project budget of \$2M of which \$600K expended by ratepayers and \$1.4M billed to the city.
- n. No project costs have been spent to date..

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- 3. Provide the following for each project or program in Category A, D, G, H, and J, as defined by a line item in the "Index of Workpapers" for Exhibit SDG&E-14-CWP, for which SDG&E has used an "average" or "linear" or "Base Year Recorded" forecast methodology (refer to Slide 16 of SDG&E's presentation from the GRC workshop held at the CPUC on November 1, 2017):
- a. For projects or programs with any recorded or forecast non-CPUC jurisdictional expenditures, provide the total (CPUC plus non-CPUC jurisdictional) recorded and forecast expenditures,
- b. Total annual expenditures, recorded and forecast, including contributions from developers, municipalities, or other entities except for SDG&E ratepayers,
- History of the project or program from the date it was first proposed to the CPUC for cost recovery, including key milestones, authorized budgets, and recorded expenditures,
- d. Overall plan for the program including objectives, goals, planned duration, scope in terms of equipment to be included vs. excluded (e.g., all 12 kV will eventually be updated per program XYZ),
- e. The rational SDG&E uses to prioritize specific projects within the overall program, and the resulting schedule of implementation,
- f. Scope per project in terms of specific work performed at each location,
- g. Scope or pace of the program per year in terms of projects per year or any other indicator of annual scope of work performed,
- h. Information on the contingency rate(s) used and which components of the cost forecast they apply to,
- i. Analysis supporting the purported need for the program or project, including the year of forecast need.

SDG&E Response 3:

Within the categories requested of A, D, G, H, and J (Capacity/Expansion, Mandated, Overhead Pools, Reliability/Improvements and DER Integration, respectively) there are 66 individual budget workpaper sets, of which 17 are derived from an "average, linear or base year recorded" forecasting method. Because of the number of additional questions requested of each and the quantity of budget workpapers involved, SDG&E is providing a sample below for a budget found in Category H. SDG&E proposes to provide similar responses for each of the relevant budgets in batches as they can be produced through Dec. 22.

The sample below is for budget workpaper sets in the Category H, Reliability/Improvements.

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SDG&E Response 3:CONTINUED

Category H

226 - Management of Overhead Distribution Service

- a. There are no non-CPUC jurisdictional expenditures for this budget.
- b. There are no expenditures for this budget that are unrelated to SDG&E's ratepayers.
- c. This budget is a 'blanket' budget, which is a collection of many like-kind or related small projects such as pole replacements, as distinguished from other budgets (sometimes called 'specific' budgets) that address a single project such as a substation. Blanket budgets exist from year-to-year, and have no characteristic milestones such as project-start or in-service date, because the many individual items are placed into service throughout the year. An average work-order life, such as one month, is estimated so that the costs accumulated to those budgets can be placed into service during the year. Blanket budget forecasts are often estimated either by historical averages or trends, or by an estimated unit-cost multiplied by an expected future volume in a type of zero-based methodology. See below for historical spend from 2012.

Year	Recorded	Planned
2012	\$ 15,146,492	\$ 11,143,000
2013	\$ 12,409,278	\$ 12,866,000
2014	\$ 9,569,002	\$ 11,933,000
2015	\$ 9,820,470	\$ 13,231,000
2016	\$ 8,856,481	\$ 1,252,500

d. The overall plan for the budget is to reinforce the electric overhead distribution system infrastructure by responsive action to system damages, deterioration and unsafe conditions outside normal restoration of service. The overall objective is to maintain continuity of safe and reliable customer service.

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SDG&E Response 3:CONTINUED

Because this budget is a blanket budget, the duration of the budget is anticipated to continue through the life of the budget. This budget provides for the reconstruction of existing overhead distribution facilities as necessary to:

- Correct improper voltage conditions
- Replace overloaded overhead facilities
- Make emergency repairs not normally associated with restoration of service
- Repair or replace deteriorated or unsafe equipment not found through the Corrective Maintenance Program.
- Install fault indicators / fusing / switching equipment as necessary to maintain service reliability
- e. Budget 226 is a blanket budget and is not a specific budget for specific projects. Jobs within the budget are generally worked in sequential order as they are processed and after the necessary releases are obtained.
- f. See answer in 3-d above.
- g. The best indicator of annual scope of work performed is the annual spend for each budget. The annual spend is provided in the answer to item 3.a.
- h. Contingencies are not applied to this budget. The budget is based on previous year actuals, but include a 5% inflation increase per year looking forward.
- i. This budget is a blanket budget and are not specific budgets for specific projects. The scopes provided above in Item 3-d detail the need for the programs.

227 - Management of Underground Distribution Service

- a. There are no non-CPUC jurisdictional expenditures for this budget.
- b. There are no expenditures for this budget that are unrelated to SDG&E's ratepayers.
- c. This budget is a 'blanket' budget, which is a collection of many like-kind or related small projects such as pole replacements, as distinguished from other budgets (sometimes called 'specific' budgets) that address a single project such as a substation.

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SDG&E Response 3:CONTINUED

Blanket budgets exist from year-to-year, and have no characteristic milestones such as project-start or in-service date, because the many individual items are placed into service throughout the year. An average work-order life, such as one month, is estimated so that the costs accumulated to those budgets can be placed into service during the year. Blanket budget forecasts are often estimated either by historical averages or trends, or by an estimated unit-cost multiplied by an expected future volume in a type of zero-based methodology. See below for historical spend from 2012.

Year	Recorded	Planned
2012	\$ 6,887,835	\$ 7,631,000
2013	\$ 6,177,744	\$ 5,680,000
2014	\$ 4,624,918	\$ 5,869,000
2015	\$ 4,514,189	\$ 5,487,000
2016	\$ 5,130,188	\$ 5,197,000

- d. The overall plan for this budget is to reinforce the electric underground distribution system infrastructure by responsive action to system damages, deterioration and unsafe conditions outside normal restoration of service. The overall objective is to maintain continuity of safe and reliable customer service. Because this budget is a blanket budget, the duration of the budget is anticipated to continue through the life of the budget. This project provides for the reconstruction of existing underground distribution facilities as necessary to:
 - Correct improper voltage conditions
 - Replace overloaded overhead facilities
 - Make emergency repairs not normally associated with restoration of service
 - Repair or replace deteriorated or unsafe equipment not found through the 'Corrective Maintenance Program'
 - Install fault indicators / fusing / switching equipment as necessary to maintain service reliability

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SDG&E Response 3:CONTINUED

- e. Budget 227 is a blanket budget and is not a specific budget for specific projects. Jobs within the budget are generally worked in sequential order as they are processed and after the necessary releases are obtained.
- f. See answer in 3-d above.
- g. The best indicator of annual scope of work performed is the annual spend for each budget. The annual spend is provided in the answer to item 3.a.
- h. Contingencies are not applied to this budget. The budget is based on previous year actuals, but include a 5% inflation increase per year looking forward.
- i. This budget is a blanket budget and is not a specific budget for specific projects. The scopes provided above in Item 3-d detail the need for the programs.

236 – Capital Restoration of Service

- a. There are no non-CPUC jurisdictional expenditures for this budget.
- b. There are no expenditures for this budget that are unrelated to SDG&E's ratepayers.
- c. This budget is a 'blanket' budget, which is a collection of many like-kind or related small projects such as pole replacements, as distinguished from other budgets (sometimes called 'specific' budgets) that address a single project such as a substation. Blanket budgets exist from year-to-year, and have no characteristic milestones such as project-start or in-service date, because the many individual items are placed into service throughout the year. An average work-order life, such as one month, is estimated so that the costs accumulated to those budgets can be placed into service during the year. Blanket budget forecasts are often estimated either by historical averages or trends, or by an estimated unit-cost multiplied by an expected future volume in a type of zero-based methodology. See below for historical spend from 2012.

Year	Recorded	Planned	
2012	\$ 11,525,305	\$ 5,532,000	

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SDG&E Response 3:CONTINUED

2013	\$ 10,478,481	\$ 10,884,000
2014	\$ 11,504,577	\$ 9,954,000
2015	\$ 10,570,222	\$ 9,644,000
2016	\$ 17,716,767	\$ 9,126,000

- d. The overall plan for this budget is to accomplish restoration of electric service due to system interruptions caused by severe inclement weather conditions, fires, equipment failures and damages caused by a third party. Because this budget is a blanket budget, the duration of the budget is anticipated to continue through the life of the budget. It will fund responsive repairs on an ongoing basis to SDG&E distribution facilities as necessary to restore electric service to customers in a timely manner and in compliance with the CPUC General Orders. This project provides for the reconstruction of existing overhead and underground distribution facilities as necessary to restore electric service to customers. The funds within this budget cover all costs associated with the following factors:
 - Storm Damage (rain/wind/fire for example)
 - Damage to electric distribution facilities by others (car/equipment contacts for example)
 - Emergency repairs of facilities that are required for service restoration (cable or equipment failures for example)
- e. Budget 236 is a blanket budget and is not a specific budget for specific projects. This budget is purely responsive and only deals with jobs that need attention to restore electric service to customers.
- f. See answer in 3-d above.
- g. The best indicator of annual scope of work performed is the annual spend for each budget. The annual spend is provided in the answer to item 3.a.
- h. Contingencies are not applied to this budget. The budget is based on previous year actuals, but include a 5% inflation increase per year looking forward.

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SDG&E Response 3:CONTINUED

i. This budget is a blanket budget and is not a specific budget for specific projects. The scopes provided above in Item 3-d detail the need for the programs.