Q. DO YOU AGREE WITH THE COMPANY'S PROPOSED ADJUSTMENT TO STI COMPENSATION?

A. No. The Company has failed to recognize two additional adjustments that should be made based on the statute that was effective June 15, 2019, and on prior decisions of the Commission concerning incentive compensation.

Q. PLEASE EXPLAIN.

A. The new statute (Tex. Util. Code § 104.060) provides that gas utilities are entitled to a presumption of the reasonableness and necessity of employee compensation and benefits expenses if the expenses are consistent with recent market compensation studies. However, the statute does not completely insulate the utility from a review by the regulatory authority to ensure that the expenses are actually consistent with those studies. In fact, the very wording of the statute makes the issue of consistency extremely important.

With regard to incentive compensation, the market studies referenced by the Company generally review the level of target percentages for STI compensation. These studies do not, however, include the actual amount of STI compensation that is paid by the studied companies ***over and above*** the target percentages. As I discuss further below, the Company's ***target percentages*** appear to be consistent with the market studies, but the ***amounts actually paid above the target percentages*** are not consistent with those studies, and cannot take advantage of the presumption afforded by the statute. As noted below, I recommend that STI compensation be limited to the amount that is based on 100% of the target percentages set for each employee.

The second adjustment is related to STI compensation awarded to all Shared Service Unit employees that has previously been disallowed by the Commission in the following Atmos Energy docketed proceedings:[4]

- Final Order, GUD No. 9670, June 13, 2007;[5]
- Final Order, GUD No. 9762, June 24, 2008;[6]
- Final Order *Nunc Pro Tunc*, GUD No. 9869, February 23, 2010;[7]
- Final Order, GUD No. 10000, April 18, 2011;[8]
- Final Order, GUD No. 10170, December 4, 2012;[9] and
- Final Order, GUD No. 10580, August 2, 2017.[10]

Q. EXPLAIN THE MEANING OF "TARGET PERCENTAGE" AND HOW IT IS IMPORTANT IN DETERMINING THE CONSISTENCY OF ATMOS ENERGY'S STI COMPENSATION WITH MARKET STUDIES.

A. Generally, under the terms of incentive compensation plans, the "target percentage" is the percentage of an employee's base salary that may be paid as STI compensation depending

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[4] These are only the dockets involving Atmos Energy. There may be additional precedent for other companies.

[5] *Petition for De Novo Review of the Reduction of the Gas Utility Rates of Atmos Energy Corp., Mid-Tex Division, by the cities of Addison, Bedford, Benbrook, et al., Statement of Intent Filed by Atmos Energy Corp., Mid-Tex Division to Change Rates in the Company's Statewide Gas Utility System, and Petition for Review from the Actions of Municipalities Denying Rate Request*, GUD No. 9670 (and all consolidated cases), Final Order (June 13, 2007).

[6] *Statement of Intent Filed by Atmos Energy Corporation to Increase Utility Rates Within the Unincorporated Areas Served by the Atmos Energy Corp., Mid-Tex Division and Petition for De Novo Review of the Denial of the Statement of Intent Filed by Atmos in Various Municipalities*, GUD No. 9762 (and consolidated cases), Final Order (June 24, 2008).

[7] *Petition for De Novo Review of the Denial of the Statement of Intent Filed by Atmos Energy Corp., Mid-Tex Division by the City of Dallas; Statement of Intent to Increase Gas Utility Rates in the Unincorporated Areas Served by the Mid-Tex Division*, GUD No. 9869, Final Order *Nunc Pro Tunc* (Feb. 23, 2010).

[8] *Statement of Intent to Change the Rate CGS and Rate PT Rates of Atmos Pipeline-Texas*, GUD No. 10000, Final Order (Apr. 18, 2011).

[9] *Statement of Intent Filed by Atmos Energy Corp. to Increase Gas Utility Rates Within the Unincorporated Areas Served by the Atmos Energy Corp., Mid-Tex Division*, GUD No. 10170, Final Order (Dec. 4, 2012).

[10] *Statement of Intent to Change the Rates of City Gate Service (CGS) and Rate Pipeline Transportation (PT) Rates of Atmos Pipeline – Texas*, GUD No. 10580, Final Order (Aug. 2, 2017).

on: (1) whether the Company reaches the targeted goal for earnings per share ("EPS"); and (2) whether the employee meets individual performance goals. The target percentage is set for each employee grade to be the percentage of base salary that will be paid if the utility's parent company reaches the established goals for EPS.

Q. DOES ATMOS ENERGY ESTABLISH TARGET PERCENTAGES FOR STI COMPENSATION BASED ON ITS REVIEW OF MARKET STUDIES?

A. Yes. Based on Ms. Myers' direct testimony, Atmos Energy had an analysis conducted of its STI program by Willis Towers Watson ("WTW") with respect to "Atmos' current incentive plan design, eligibility and *targets*."[11] According to Ms. Myers, WTW found these elements of Atmos Energy's incentive plan to be consistent with market prices.[12]

Q. HAS THE COMPANY INCLUDED STI COMPENSATION BASED ON THESE TARGET PERCENTAGES AS DETERMINED BY MARKET STUDIES?

A. No. With the exception of the top five Atmos Energy executives, the Company appears to have included STI compensation for Triangle based on the actual STI compensation awards for both West Texas Division employees and the Shared Service Unit employees. Based on Atmos Energy's 2018 Proxy Statement, the test year awards were **133%** of target rates.[13]

Q. PLEASE EXPLAIN YOUR RATIONALE FOR LIMITING THE STI COMPENSATION TO 100% OF TARGET PERCENTAGE BY EMPLOYEE POSITION.

A. In Ms. Myers' direct testimony, she makes the following statement with respect to the reasonableness of Atmos Energy's incentive compensation:

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[11] *See* Direct Testimony of Barbara W. Myers at 34 (emphasis added).

[12] *Id.*

[13] *See* Notice of Annual Meeting and Proxy Statement, Atmos Energy (February 6, 2019) at 39. Provided as Attachment B.

> Atmos Energy participates in national and industry-specific salary surveys to determine compensation practices at peer company. These surveys contain data and analysis that are specific to the energy business such as utility or pipeline companies as well as general industry. Atmos Energy then uses this data to ensure its compensation programs, including base pay, merit increase and incentive compensation are in line with the 50th percentile or median of market.[14]

Ms. Myers states that Atmos Energy uses the compensation studies to set incentive pay that will be competitive in the industry.[15] Atmos Energy sets the target percentages for STI compensation by position based on the compensation studies, not the actual percentage amounts awarded by the peer companies in any particular year. Therefore, the Company may choose to reward employees for greater than 100% of their respective STI target percentages, but the amounts over 100% of targets does not carry the same presumption of reasonableness as the targets in the market studies. Therefore, ratepayers should not be responsible for any STI compensation that is greater than the target percentages set to achieve a level of total compensation that falls within the 50th percentile.

Q. WHAT IS THE IMPACT TO O&M EXPENSE BY LIMITING THE STI COMPENSATION TO 100% OF TARGET FOR WEST TEXAS TRIANGLE?

A. As shown on Schedule CTC-1, the impact of setting the STI compensation for West Texas Division employees is a reduction to the Triangle O&M expense of approximately $9,260. I have requested that the Company provide the exact difference between the actual STI compensation included in the cost of service and the amount that would have been awarded based on the target percentages for West Texas Division employees. As of the filing of this testimony, I have not received a response to this request.

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[14] *See* Direct Testimony of Barbara W. Myers at 32.

[15] *Id.* at 33.

Q. YOU ALSO RECOMMEND THAT THE COMPANY BE REQUIRED TO REMOVE ANY STI COMPENSATION AWARDED TO SHARED SERVICES UNIT EMPLOYEES AND ALLOCATED TO TRIANGLE'S COST OF SERVICE. PLEASE EXPLAIN.

A. I recommend that all STI compensation included on WP F-2.7 in Cost Center 1904 be removed from the expense and capital allocated to Triangle. As shown on Schedule CTC-2, removal of the STI compensation allocated to Triangle from the Shared Service Unit results in an additional reduction to O&M expense of $8,583.[16] As I have testified, the Commission has found in numerous Atmos Energy proceedings. that the STI compensation awarded to Shared Services Unit employees, booked to Cost Center 1904, should not be paid for by ratepayers, but rather should be the responsibility of shareholders.

Q. SHOULD THE COMMISSION CONTINUE TO FOLLOW ITS PREVIOUS DECISIONS WITH RESPECT TO THE STI COMPENSATION AWARDED TO SHARED SERVICES UNIT EMPLOYEES?

A. Yes. There has been no change to the manner in which Atmos Energy awards STI compensation, and therefore, there should be no reversal of the Commission's previous decisions to disallow the STI compensation awarded to Shared Services Unit employees. The rationale put forth by the Commission is as follow:

> [t]he company's proposed treatment of incentive compensation is consistent with prior precedent that balances the burden of the recovery of this expense between shareholders and customers by allowing recovery of the Atmos Mid-Tex Division and disallowing recovery of the Shared Service Unit Expense.[17]

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[16] The final adjustment on Schedule CTC-2 takes into account the amounts already removed by Triangle for the top five Atmos Energy executives.

[17] GUD No. 10170, Final Order, Finding of Fact No. 167 at 18.

Q. DOES THE AMOUNT REMOVED FOR SHARED SERVICE UNIT STI COMPENSATION NEED TO BE ADJUSTED TO THE AMOUNT IN EXCESS OF TARGET PERCENTAGES?

A. Not under my proposal. However, if the Commission determines that the Shared Service Unit STI compensation should be found to be consistent with market studies, the amounts allocable to Triangle should not be any greater than 100% of the targets by employee.

B. Long-Term Incentive Compensation Adjustments

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSED ADJUSTMENT TO THE LONG-TERM INCENTIVE ("LTI") COMPENSATION INCLUDED IN THIS RATE REQUEST?

A. No, I do not. As with the STI compensation, the only adjustment proposed by the Company is to remove the performance-based long-term incentive compensation awarded to Atmos Energy's top five executives. My recommended adjustment includes removing all performance-based long-term incentive compensation allocated from the Shared Service Unit and limiting the performance-based LTI compensation awarded to West Texas Division employees to 100% of targets established consistent with market studies.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION ON THIS FILING?

A. I have requested that the Company provide this information by Shared Service Unit cost center and for the West Texas Division for the test year. As of the writing of this testimony, I have not received a response. However, I have estimated the amounts by using the reported three-year average earnings per share performance used to award LTI compensation to the top five executives. As shown on Schedule CTC-1, I have estimated that LTI performance-based compensation was awarded at approximately 178% of target percentages, which results in a reduction to O&M of $483. On Schedule CTC-3, I have

used the same 178% to deduct the total test year LTI performance-based compensation as allocated by the four factors generally used to allocate Shared Service Unit costs to Triangle operations. My adjustment to Triangle O&M expense for the allocated Shared Services Unit LTI is an estimated reduction of $18,872. I will update this estimate upon receipt of information from the Company.

Q. HAS THE COMMISSION DISALLOWED LTI COMPENSATION IN PRIOR ATMOS ENERGY RATE REQUESTS?

A. Yes, in the Final Order for GUD No. 10580, the Commission found that LTI compensation should only be included for direct Atmos Pipeline employees, and then only at 100% of the target percentages for such incentive awards.[18]

C. Capitalized STI and LTI Compensation Adjustments

Q. PLEASE EXPLAIN YOUR RATIONALE FOR ADJUSTING THE TRIANGLE RATE BASE TO MATCH YOUR ADJUSTMENT TO STI AND LTI COMPENSATION EXPENSE.

A. As with any expense that has a corresponding capital component, if the expense is adjusted, there must be an adjustment to capital that is commensurate with the adjustment to the expense. As I have testified, I am recommending a reduction to O&M expense related to both STI compensation and LTI compensation. Because Atmos capitalizes a portion of each of these types of expenditures, I recommend an adjustment to rate base.

[18] *See* GUD No. 10580, Final Order (Aug. 1, 2017); GUD No. 10580, First Amended Proposal for Decision at 31 (July 24, 2017).

Q. HASN'T THE COMPANY ALREADY PROPOSED AN ADJUSTMENT TO RATE BASE RELATED TO STI AND LTI COMPENSATION EXPENSE?

A. Yes. The Company has adjusted rate base to remove the capitalized components of the STI and LTI compensation awarded to its top five executive employees. By using the Company's methodology, I have computed an additional adjustment to capital for STI and LTI compensation of $65,970 to match my recommended adjustment to expense. The computation of my recommended adjustment is comprised of a reduction of $15,466 shown on Schedule CTC-1, a reduction of $30,449 shown on Schedule CTC-2, and a reduction of $20,055 shown on Schedule CTC-3.

D. Treatment of Excess Deferred Income Taxes

Q. WHAT IS YOUR UNDERSTANDING OF ATMOS' POSITION WITH RESPECT TO THE TREATMENT OF ANY EXCESS DEFERRED INCOME TAXES RESULTING FROM THE PASSAGE OF THE TAX CUTS AND JOBS ACT OF 2017?

A. My understanding is that the Company is taking the position that there are no excess deferred income taxes ("EDIT") related to Triangle operations that are refundable to ratepayers as a result of the TCJA. The Company's argument is that Triangle rates have always been market-based, and therefore, any accumulated deferred income taxes attributable to Triangle operations have not be funded by ratepayers.[19]

Q. DO YOU AGREE WITH THE COMPANY?

A. No, for two distinct reasons. The first reason is that the West Texas distribution ratepayers have been paying federal income taxes on the use of the Triangle assets. According to the Company, charges related to the use of Triangle assets have been passed on to West Texas

[19] *See* Direct Testimony of Philip R. Littlejohn at 17 (Sept. 27, 2019).

distribution customers through the gas adjustment clause. The computation of the adjustment clause provides for the inclusion of taxes, which, prior to the passage of the TCJA, would have been 35% for the federal income tax portion. Under this computation, the West Texas distribution customers actually paid the 35% tax rate, but received no benefit of having the accumulated deferred income tax balance deducted from a rate base determined using a cost of service.

Secondly, the Company's proposed increase in Triangle's current rates is approximately 2.9%.[20] Clearly, if the difference between what the Company has termed as "market based rates" and the cost of service rates is so small, the distribution customers have contributed to Triangle's balance of accumulated deferred income taxes, without any perceived benefit.

Q. DOES THE COMPANY RECORD DEFERRED INCOME TAXES FOR TRIANGLE OPERATIONS?

A. Yes, it does. In fact, the Company is requesting that the balance of accumulated deferred income taxes be included in the rate base computation in this filing.[21]

Q. IS THERE AN EDIT BALANCE RELATED TO TRIANGLE OPERATIONS?

A. In his direct testimony, Mr. Littlejohn states that there is no deferred liability or asset related to the TCJA.[22] However, it is unclear as to whether the Company should have computed a deferred liability or asset based on the pass-through of Triangle costs to distribution ratepayers.

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[20] *See* Atmos Energy Corporation, West Texas Division's Statement of Intent to Establish Cost-Based Rates for the Triangle Distribution System, Schedule A at 309 (Sept. 27, 2019) (SOI).

[21] *See* SOI, WP B-6 at 325-329.

[22] *See* Direct Testimony of Philip R. Littlejohn at 17.

Q. HAVE YOU COMPUTED AN AMOUNT OF EDIT RELATED TO THE TRIANGLE OPERATIONS?

A. No, not as of the writing of this testimony. I have requested that the Company provide information related to the portion of the EDIT computed by the Company using the Reverse South Georgia methodology that could be attributable to Triangle operations, but have not yet received a response. However, I do recommend that to the extent that there is an EDIT balance that is related to Triangle operations, that such balance be amortized to ratepayers and not to the Company's income.

Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

A. Yes, it does. However, I reserve the right to amend and/or supplement my testimony upon receipt of response to my outstanding requests for information, or as may otherwise be required.

ATTACHMENT A

Connie Cannady
Executive Consultant
ccannady@newgenstrategies.net

With over thirty-five years of financial and managerial consulting experience, Connie Cannady is an expert in the areas of utility regulation and franchising of utility services, both at the local and state level. Prior to joining NewGen Strategies and Solutions, Ms. Cannady was the Founder and President of C2 Consulting Services, Inc., a woman-owned business enterprise. Ms. Cannady's previous experience also includes serving as a Manager at Reed-Stowe & Co. Inc.; Manager of Accounting and Control for the Information Services Division of Blue Cross of California; Senior Consultant for Touché Ross & Co. (now Deloitte); and Management Auditor for the U.S. General Accounting Office.

EDUCATION

- Master of Public Affairs, University of Texas
- Bachelor of Arts in Political Science, Vanderbilt University

KEY EXPERTISE

- Expert Witness and Litigation Support
- Regulatory Proceedings
- Utility ROW Franchising and Compensation
- Cost Allocation Models

RELEVANT EXPERIENCE

Expert Witness and Litigation Support

Ms. Cannady serves as project manager and lead analyst for numerous regulatory proceedings for rates, assisting clients by providing expert testimony and litigation support regarding utility rate and regulatory issues before state and local regulatory bodies and courts. She frequently works with coalitions of cities served by investor-owned utilities and provides analyses and expert witness support related to the utilities' requests for rate increases. Ms. Cannady also provides support services to the U.S. Army Corp of Engineers concerning rate proceedings impacting utility rates at U.S. Army installations.

Her direct experience includes conducting analyses with respect to the reasonableness of various rate base issues, including the prudency of costs. Areas of analysis and provided testimony include:

- Reasonableness of certain rate based costs related to benefits and other operating reserves
- Calculation of Accumulated deferred income taxes
- Reasonableness of operations and maintenance expenses related to labor expense, benefits expense, including health and welfare, pension, deferred compensation, ESOPs and other savings plans, corporate overhead cost allocation methodologies, call center operations, bonuses and other long and short-term incentive pay programs, taxes other than income and federal income taxes.
- Reasonableness of affiliated transaction expenses
- Computation of fuel factors and purchase power factors to be used in the collection of power costs
- Reasonableness of certain advanced meter investments
- Reasonableness of requested inclusion of certain regulatory assets
- Analysis of the "used and useful" nature of requested plant additions
- Analysis of customer class cost allocation methodologies

Ms. Cannady's expert witness and litigation support clients include:

ATTACHMENT A

Connie Cannady
Executive Consultant

Maryland Public Service Commission

- U.S. Army Installations Served by Baltimore Gas & Electric; Case Nos. 9355 and 9406

New York Public Service Commission

- U.S. Army Installations Served by Orange & Rockland Utilities; Case Nos. 14-E-0493 and 14-G-0494

Public Utility Commission of Texas

- Cities Served by CenterPoint Energy Houston Electric; Dockets Nos. 48266, 45747and 12065
- Cities Served by Southwestern Electric Power Company (SWEPCO), Texas; Docket Nos. 37364, 39708, 40443, 40446
- Cities Served by AEP Texas Central Company, Texas; Docket No. 33309
- Cities Served by AEP Texas North Company, Texas; Docket Nos. 33310, 4202 and 4716
- Cities Served by Sharyland Utilities, Texas; State Office of Administrative Hearings (SOAH); Docket No. 473-99-2566
- Cities Served by Texas-New Mexico Power Company, Texas; Docket Nos. 15560, 12900, 10200, 22636, 36025, 22745
- Cities served by Oncor Electric Delivery Company, Texas; Docket Nos. 48325, 48231, 5640
- Cities served by Entergy Texas; Docket No. 48371 and 4510
- Cities Served by General Telephone Company of the Southwest (Verizon); Docket Nos. 4300 and 5011
- Project No. 14400 - Integrated Resource Planning
- Office of Public Utility Counsel – AEP Texas, Inc. Docket No. 49494

North Carolina Utilities Commission

- Duke Energy Progress – Docket No. E-2 SUB 1142

FERC

- NESCOE, Docket No. ER18-1639 regarding Constellation Mystic Power, LLC

Oklahoma Corporation Commission

- Arkansas Oklahoma Gas Corporation; Cause No. PUD 001346

Railroad Commission of Texas

- CenterPoint Energy Entex; Docket GUD Nos. 9654, 9902, 10038, 10182, 10432, 10567
- Atmos Energy; Docket GUD Nos. 9670, 10000, 10170, 10174, 10359 and 10580
- Texas Gas Services, Docket GUD Nos. 10488 and 10526
- TXU Gas; Docket No. GUD 9400
- TXU Gas Transmission; Docket No. GUD 8935
- Lone Star Gas Company Gate Rate; Docket No. GUD 8664
- Lone Star Gas Company Gate Rate; Docket No. GUD 3543

Arizona Corporation Commission

- Arizona Public Service Company, Arizona; Docket No. U-1345-82-266.

New Mexico State Corporation Commission

- Continental Telephone Company of the West; Docket No. 942
- General Telephone Company of the Southwest; Docket No. 990

Colorado Public Utilities Commission

- Southern Colorado Power - Cost Allocation Study

Alabama Public Service Commission

- Alabama Power Company - Fuel Procurement Review

Indiana Regulatory Commission

- Northern Indiana Public Service Company – Cause No. 44733-TDSIC-2
- Northern Indiana Public Service Company- Cause No. 44733-TDSIC-3
- Northern Indiana Public Service Company Cause No. 45159
- Indiana Michigan Power Company Cause No. 45325

Cost Allocation Modeling

Ms. Cannady has conducted cost allocation modeling for municipal utility clients. She has developed a cost allocation model (CAM) for allocating all utility overhead as well as the city's general fund overhead to the functions of production, distribution and transmission. The objectives of these studies were to more accurately reflect the fully loaded transmission costs to be separated from distribution costs in deregulated utility markets. The CAM models also include functionalizing the aggregated capitalized interest so that the value of the utility assets can be more accurately reported. Ms. Cannady has also assisted municipal clients in developing a cost allocation model to be used by the city to allocate general fund costs to each of its enterprise operations, including the electric utility, water and wastewater, and solid waste. Finally, Ms. Cannady has reviewed the appropriateness of cost allocation methodologies used by utility operations when developing rates. Her cost allocation projects include:

- Develop CAM model for Garland Power & Light, Garland, Texas
- Develop CAM model for Water and Wastewater Operations - City of Garland, Texas
- Review of Overhead Cost Allocations – Lower Colorado River Authority
- Review of Cost Allocation for Maintenance Activities – San Jacinto River Authority
- Develop Indirect Cost Allocation Model – City of Greenville, Texas
- Develop Indirect Cost Allocation Model – City of Denton Texas
- Develop Indirect Cost Allocation Model – City of Terrell, Texas
- Develop Indirect Cost Allocation Model – City of Brenham, Texas

Franchising of Utility Service in Municipal Right-of-Way

Ms. Cannady has assisted numerous municipalities/counties in negotiating franchises that allow utility service providers to construct in the municipalities' rights-of-way. In addition, Ms. Cannady has assisted in reviewing the actual payments made by the utilities to determine the accuracy of such payments in accordance with franchise terms or state and federal laws. She has assisted municipalities/counties in Texas, California, Washington, New York, Missouri, Illinois, and Kentucky. The majority of the projects concern the payment of cable services, but many of the projects have also involved review of franchising terms and payments from natural gas utility operations, electric service operations and telecommunications services.

Right-of-Way Costs

Ms. Cannady has conducted analysis of the costs incurred by municipalities in allowing utilities to have ubiquitous access to the Right-of-Way. Her clients include:

- City of Durham, North Carolina
- City of Atlanta, Georgia
- City of Cheyenne, Wyoming
- City of Tucson, Arizona
- Texas Municipal League, Texas

WORKSHOPS AND PRESENTATIONS

Ms. Cannady is an instructor on behalf of Electric Utility Consultants, Inc. (EUCI), co-authoring and presenting witness preparation materials at multiple conferences and speaking on related topics at industry forums. Her experience includes:

ATTACHMENT A

Connie Cannady
Executive Consultant

NARUC Staff Subcommittee on Accounting & Finance

- *Expert Witness Techniques*

Electric Utility Consultants, Inc. (EUCI)

- *EUCI Witness Preparation Training Conferences* (five conferences in 2013, 2014, 2016, 2017 2018, and 2019

Government Finance Officers Association of Texas

- *Franchise Fees – Accuracy and Compliance*
- *Franchise Fees, Identifying the Issues*

Texas Association of Telecommunications Officers and Advisors

- *Effective Competition: A Case Study - The City of Denton*
- *Issues Regarding Cable Television Franchise Payments*
- *Customer Service Issues*

National Association of Telecommunications Officers and Advisors

- *Hooray for Competition*
- *Prime Real Estate: Managing the Public Rights-of-Way*

The ABC's of Energy Conference

- *Rate Making Issues*

Oklahoma Municipal League

- *Cable Rights*

Federal Bar Association

- *Basics of Cable Television Regulation*

Record of Testimony Submitted by Connie Cannady

Utility	Proceeding	Subject of Testimony	Before	Client	Date
1. Indiana Michigan Power Company	Cause No. 45235	Treatment of Tax Rate Change and EDIT Refund, Nuclear Decommissioning Fund, Recovery of Plant Investment, AMI Deployment	Indiana Utility Regulatory Commission	Cities of Marion and Fort Wayne, Indiana	2019
2. AEP Texas, Inc	Docket No. 49494	Revenue Requirements, labor and labor related expenses, storm reserve, impacts of TCJA	Public Utility Commission of Texas	Office of Public Utility Counsel	2019
3. Northern Indiana Public Service Company	Cause No. 45159	Treatment of Corporate Tax Rate Change and EDIT and Depreciation on Early Plant Retirement	Indiana Utility Regulatory Commission	U.S. Steel Corporation	2019
4. Constellation Mystic Power, LLC	Docket No. ER18-1639	Cash Working Capital, Overtime Expense, Incentive Pay, TCJA Impacts and True-Up Protocols	Federal Energy Regulatory Commission	New England States Committee on Electricity	2018
5. Entergy Texas, Inc.	Docket No. 48371	Post Test Year Adjustment, Storm Regulatory Assets, Retired Plant, Employee Benefits, Treatment of Excess Deferred Income Taxes	Public Utility Commission of Texas	Office of Public Utility Counsel	2018
6. Oncor Electric Service Company	Docket No. 48325	Proposed amortization of excess deferred income taxes, refund of income tax overcharges since January 1, 2018 and appropriate carrying charges	Public Utility Commission of Texas	Alliance of Oncor Cities	2018
7. Oncor Electric Service Company	Docket No. 48231	Proposed CIS Depreciation Rate and treatment of Corporate Tax Rate Change in Distribution Cost Recovery Tracker Rate	Public Utility Commission of Texas	Alliance of Oncor Cities	2018
8. CenterPoint Energy Houston Electric	Docket No. 48226	Treatment of Corporate Tax Rate Change in Distribution Cost Recovery Tracker Rate	Public Utility Commission of Texas	Texas Coast Utilities Coalition	2018
9. CenterPoint Energy Entex South Division	GUD No. 10669	Rate Base and Operating Income Issues, Affiliated Charges, Treatment of Excess Deferred Income Taxes (Settled)	Railroad Commission of Texas	Alliance of CenterPoint Municipalities	2018

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10. Northern Indiana Public Service Company	Cause No. 44733-TDSIC-3	Treatment of Corporate Tax Rate Change and EDIT	Indiana Utility Regulatory Commission	U.S. Steel Corporation	2018
11. Duke Energy Progress	Docket No. E-2 SUB 1142	Cancelled Plant Prudency, Deferred Asset Treatment, Benefits	North Carolina Utilities Commission	U.S. Dept. of Defense and Other Federal Agencies	2017
12. Northern Indiana Public Service Company	Cause No. 44733-TDSIC-2	Tax Gross-Up Treatment in Investment Tracker	Indiana Utility Regulatory Commission	U.S. Steel Corporation	2017
13. Atmos Pipeline Texas	GUD No. 10580	Rate Base and Operating Income Issues, ADIT NOL	Railroad Commission of Texas	Atmos Cities Steering Committee	2017
14. CenterPoint Energy Entex Texas Gulf Division	GUD No. 10567	Rate Base and Operating Income Issues, Affiliated Charges	Railroad Commission of Texas	Gulf Coast Coalition of Cities	2017
15. CenterPoint Energy Houston Electric	Docket No. 45747	Allocation of Certain Corporate Costs included in DCRF rate adder	Public Utility Commission of Texas	Texas Coast Utilities Coalition	2016
16. CenterPoint Energy Entex	GUD No. 10432	Rate Base and Operating Income Issues, Affiliated Charges	Railroad Commission of Texas	Texas Coast Utilities Coalition	2015
17. Baltimore Gas and Electric	Case No. 9355	Rate Base and Operating Income Issues, Cost Allocation Issues	Maryland Public Service Commission	U.S. Dept. of Defense and Other Federal Agencies	2014
18. Atmos Energy	Docket No. 10359	Rate Base and Operating Income Issues	Railroad Commission of Texas	Atmos Cities Steering Committee	2014
19. SWEPCO	Docket No. 40443	Rate Base and Operating Income Issues	Public Utility Commission of Texas	Cities Served by SWEPCO	2012
20. CenterPoint Energy Entex	GUD No. 10182	Rate Base and Operating Income Issues	Railroad Commission of Texas Case Settled Before Hearing	East Texas Cities	2012
21. Atmos Energy	GUD No. 10174	Rate Base and Operating Income Issues	Railroad Commission of Texas	West Texas Cities Steering Committee	2012
22. Atmos Energy	GUD No. 10170	Rate Base and Operating Income Issues	Railroad Commission of Texas	Atmos Cities Steering Committee	2012
23. CenterPoint Energy Entex	GUD No. 10038	Rate Base and Operating Income Issues	Railroad Commission of Texas	Steering Committee of Cities Served by CenterPoint South Texas Division	2011
24. Atmos Energy	GUD No. 10000	Rate Base and Operating Income Issues	Railroad Commission of Texas	Atmos Cities Steering Committee	2010

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25. Texas-New Mexico Power Company	Docket No. 38480	Rate Base and Operating Income Issues	Public Utility Commission of Texas	Cities Served by TNMP	2010
26. CenterPoint Energy Entex	GUD No. 9902	Labor Costs, Group Benefits, and Valorem Taxes	Railroad Commission of Texas	Gulf Coast Coalition of Cities Served by CenterPoint Houston Division	2009
27. AEP – Texas Central Company	Docket No. 33309	Labor Costs, Group Benefits, and Energy Efficiency Program Costs	Public Utility Commission of Texas	Cities Served by AEP Texas Central Company	2007
28. AEP – Texas North Company	Docket No. 33310	Labor Costs, Group Benefits, and Energy Efficiency Program Costs	Public Utility Commission of Texas	Cities Served by AEP Texas North Company	2007
29. Atmos Energy	Docket No. GUD 9670	Operations and Maintenance Expenses and Summary Schedules	Railroad Commission of Texas	Atmos Cities Steering Committee	2006
30. TXU Gas	Docket No. GUD 9400	Rate Base and Present Revenue Computation	Railroad Commission of Texas	Allied Coalition of Cities	2003
31. Texas-New Mexico Power Company	Docket No. 22745	Fuel Costs and Recovery	Public Utility Commission of Texas	Cities Served by TNMP	2001
32. Lone Star Gas Company	Docket No. GUD 8935	Purchased Gas Adjustment Clause	Railroad Commission of Texas Case Settled Before Hearing	Allied Coalition of Cities	1999
33. Garland Independent School District v. Lone Star Gas Company	Cause No. 97-00070-A	Natural Gas Billings based on Contractual Rates	Texas State District Court	Garland Independent School District	1997
34. Houston Lighting & Power Company	Docket No. 12065	Appropriate Rate Treatment of Fuel Inventories and Fuel Expense	Public Utility Commission of Texas	Gulf Coast Coalition of Cities	1994
35. Texas Electric Utilities Company	Docket No. 5640	Appropriate Rate Base to be Included in Rates	Public Utility Commission of Texas	Cities Steering Committee	1985

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ATTACHMENT A

ATTACHMENT B

ATMOS energy

Notice of Annual Meeting and Proxy Statement

Annual Meeting of Shareholders
Wednesday, February 6, 2019

and reliability of this system. Since that time, our capital expenditures have increased approximately 13% annually. In addition, during this same period, we have added new or modified existing regulatory mechanisms to reduce regulatory lag. Our ability to increase capital spending each year to modernize our system has increased our rate base, which has also resulted in increasing earnings per share during this same period.

This trend continued during fiscal 2018, as net income increased to $603 million, or $5.43 per diluted share for the year ended September 30, 2018, compared with net income of $396 million, or $3.73 per diluted share in the prior year. Fiscal 2018 results include the effect of a one-time income tax benefit related to the Tax Cuts and Jobs Act of 2017, which went into effect on January 1, 2018 (the "TCJA") of approximately $159 million, or $1.43 per diluted share. Excluding this one-time benefit, the year-over-year increase largely reflects positive rate outcomes, higher transportation margins and stronger customer consumption, partially offset by higher operating expenses.

Capital expenditures for fiscal 2018 totaled approximately $1.47 billion, with approximately 85 percent of this amount invested to improve the safety and reliability of our distribution and transmission systems, and with a significant portion of this investment incurred under regulatory mechanisms. Total spending during fiscal 2017 and 2018 under these and other mechanisms enabled the Company to implement a total of 18 regulatory filings during fiscal 2018 that should increase annual operating income over the near term by approximately $80 million. We funded our fiscal 2018 capital expenditures program primarily through operating cash flows of about $1.125 billion.

Overview of Annual Incentive Compensation Paid for Fiscal 2018 Financial Performance. The Company exceeded our target earnings per share ("EPS") goal under the Incentive Plan of $3.87 per diluted share in fiscal 2018, by earning $4.00 per diluted share, excluding the effect of a one-time income tax benefit related to the TCJA of $1.43 per diluted share. This performance attainment resulted in the named executive officers receiving awards equal to 133 percent of their respective target awards (which are expressed as a specified percentage of base salary). See "*Annual Incentive Compensation*," beginning on page 43. Because our total shareholder return (stock price appreciation and reinvested dividends) ("TSR") was a positive 15 percent for fiscal 2018, the awards were not limited to 100 percent of the target for each named executive officer.

Overview of Long-Term Incentive Compensation Paid for Fiscal 2016-2018 Financial Performance. For the grants of performance-based RSUs awarded in May 2016, the Company achieved a cumulative diluted EPS amount of $11.01, compared to the cumulative diluted EPS target amount of $10.61 during the three-year performance period ended September 30, 2018 (fiscal 2016-2018), excluding the effect of both (i) a one-time income tax benefit related to the TCJA during fiscal 2018 of $1.43 per diluted share and (ii) unrealized earnings recognized by the Company's nonregulated operations during fiscal 2016 and the first quarter of fiscal 2017 prior to their sale, effective January 1, 2017, of $0.10 per diluted share. Accordingly, the named executive officers each earned a total number of performance-based RSUs equal to approximately 138 percent of the target, in the form of shares of common stock issued in November 2018, plus cumulative dividend equivalents in the form of cash. Because our TSR was a positive 73 percent for the three-year performance period, the awards were not limited to 100 percent of the target for each named executive officer. See "*Long-Term Incentive Compensation*," beginning on page 45.

Since the actual EPS performance level attained, excluding the effect of a one-time income tax benefit related to the TCJA during fiscal 2018 of $1.43 per diluted share, was between the target of $3.87 per share and maximum of $4.26 per share, straight-line interpolation was used to compute the percentage of the target award earned. The HR Committee has the discretion under the Incentive Plan to make downward adjustments to earned awards but may not make upward adjustments. For fiscal 2018, the HR Committee did not use its discretion to make negative adjustments to any awards for any of our named executive officers. However, the HR Committee does place a limit under certain conditions on the amount of earned awards for all our named executive officers. If the Company's TSR during any fiscal year is negative, the earned award for each such officer for that fiscal year will be limited to the amount earned at the target level of performance. This limitation was not applicable in fiscal 2018 since the Company's TSR was positive for the fiscal year at 15 percent.

Awards under the Incentive Plan are paid in cash and are based on the participant's eligible earnings received during the fiscal year. However, under the terms of the Incentive Plan, participants may elect prior to the beginning of each fiscal year to convert all or a portion of their awards to time-lapse RSUs with three-year cliff vesting, with a premium equal to 20 percent of the amount converted, with such units being awarded under our LTIP.

Long-Term Incentive Compensation. The HR Committee awards grants under our LTIP each fiscal year that are structured with 50 percent of the targeted long-term value in the form of three-fiscal year performance-based RSUs with the remaining 50 percent in the form of time-lapse RSUs with three-year cliff vesting. The HR Committee believes that the payment of long-term incentive compensation in the form of grants of performance-based RSUs, as measured by cumulative EPS over a three-fiscal year performance period, rewards our named executive officers for improved financial performance of the Company, thereby giving them an incentive to enhance long-term shareholder value. The HR Committee also believes that grants of time-lapse RSUs promotes and encourages long-term retention and service to the Company, aligns the interests of our named executive officers with those of our shareholders through increased share ownership and provides a balanced approach to long-term compensation. The HR Committee bases the actual number and value of awards granted primarily on the competitive compensation benchmarking of grants made by the companies in our proxy peer group, as discussed below. The Board has also granted our President and CEO, Mr. Haefner, the authority to award up to a total of 10,000 performance-based RSUs and time-lapse RSUs in the aggregate in off-cycle grants each fiscal year to newly-hired eligible LTIP participants or to then-current LTIP participants in connection with a promotion.

The HR Committee bases the three-fiscal year cumulative EPS target performance levels on the same factors they utilize for our Incentive Plan described above. The HR Committee has also historically set increasingly challenging cumulative three-fiscal year EPS target performance levels each year, by increasing such target performance levels on average of about 18 percent per year for grants over the last three fiscal years. For the grants of performance-based RSUs whose performance periods ended during the three fiscal years prior to fiscal 2018, we exceeded our target level of performance based on cumulative EPS over the three-fiscal year performance period for all such grants, with the payouts to the named executive officers averaging approximately 178 percent of their target awards each year over that period.

Question No. SPS-OPUC 1-7:

Prior to this base rate case, has Mr. Marcus filed testimony opposing the use of the AED-4CP, or an equivalent allocation method, for allocating transmission costs in any base rate case filed by SPS, SWEPCO or Entergy Texas in the last 10 years? If so, please identify the regulatory proceeding in which the testimony was filed and provide a copy of the testimony if it is not publicly available. If the testimony is publicly available, please identify where and how it can be accessed.

RESPONSE:

Yes, Mr. Marcus filed Direct Testimony in Docket Nos. 35763 and 47527 (both SPS cases). His testimony in both proceedings is publicly available on the PUCT's Interchange.

Prepared By: Counsel

Sponsored By: William P. Marcus

Question No. SPS-OPUC 1-8:

Prior to this docket, has Mr. Marcus filed any testimony in any base rate case in the last 10 years in which Mr. Marcus specifically recommended the use of a 4CP allocation method to allocate transmission costs for an electric utility? If so, please identify the regulatory proceeding and in which the testimony was filed and provide a copy of the testimony if it is not publicly available. If the testimony is publicly available, please identify where and how it can be accessed.

RESPONSE:

Please see Docket No. 47527 for SPS. Mr. Marcus's testimony is publicly available on the PUCT's Interchange.

Prepared By: Counsel

Sponsored By: William P. Marcus

Question No. SPS-OPUC 1-9:

Prior to this docket, has Mr. Marcus filed any testimony in any base rate case or other case in which Mr. Marcus recommended a flow-back period other than 4 years for the return of plant-based unprotected accumulated deferred income taxes? If so, please identify the regulatory proceeding and in which the testimony was filed and provide a copy of the testimony if it is not publicly available. If the testimony is publicly available, please identify where and how it can be accessed.

RESPONSE:

Responsive testimony was filed in the following proceedings:

- *In the Matter of the Application of Black Hills Energy Arkansas, Inc. for Approval of a General Change in Rates and Tariffs*, Arkansas Public Service Commission Docket No. 17-071-U. Mr. Marcus's Direct and Surrebuttal Testimony can be obtained from the Arkansas Public Service Commission.
- California Public Utilities Commission Application Nos. 17-11-007/008. Mr. Marcus's Redacted Direct Testimony is included as SPS-OPUC 1-9, Exhibit 1-9.a. Please note that the six-year recovery period recommended in the California testimony is equal to what Mr. Marcus is recommending in practice for SPS (two years of recovery through ARAM and four years starting with this case).

Prepared By: Counsel

Sponsored By: William Marcus

Report on Various Results of Operations Issues in Southern California Gas Company's and San Diego Gas and Electric Company's 2016 Test Year General Rate Cases

PUBLIC REDACTED VERSION (Exhibit TURN-03)

Prepared testimony of
William Perea Marcus

MCPM Economics
618 Court Street, Suite C
Woodland California, USA 95605
916.708.6767

on behalf of
The Utility Reform Network

California Public Utilities Commission
Applications 17-11-007 and 17-11-008

May 14, 2018

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CALIFORNIA PUBLIC UTILITIES COMMISSION

APPLICATIONS 17-11-007 AND 17-11-008

PREPARED TESTIMONY OF WILLIAM PEREA MARCUS

ON BEHALF OF THE UTILITY REFORM NETWORK

I. Introduction

This testimony is presented by William Perea Marcus, Principal Economist of MCPM Economics on behalf of The Utility Reform Network (TURN). MCPM Economics is a successor company to JBS Energy, Inc., where Mr. Marcus was the Principal Economist for 32 years and supervised that company's extensive consulting practice. Mr. Marcus has 40 years of experience in energy issues and has appeared before this Commission on many occasions, and has filed testimony or formal comments before about 40 federal, state, provincial, and local courts and regulatory bodies in the U.S. and Canada. Mr. Marcus' qualifications are attached. (Attachment 1)

This testimony addresses a variety of expense and capital-related issues including customer field service and customer office operations costs for both SDG&E and SoCalGas; SDG&E's electric generation costs; SDG&E's fossil decommissioning estimates and negative net salvage for generation plant; allocation of corporate center costs; income taxes (including the effects of the new tax law); property taxes and franchise fees; cash working capital; and several other accounting issues including the appropriate AFUDC rate and ratemaking for Edison Electric Institute Dues.

My recommendations are that the Commission should:

1. Reduce SoCalGas Customer Field Services O&M by $1,544,000 (0.9%).
2. Reduce SoCalGas Customer Office Operations O&M by $4,157,000 (4.6%).
3. Reduce SDG&E Customer Field Services O&M by $1,411,000 (5.9%)
4. Reduce SDG&E Customer Office Operations O&M by $4,135,000 (9.3%).
5. Reduce SDG&E Electric Generation O&M by $1,883,000 (3.1%)
6. Change the Multifactor percentages for 2019 from 76.2% allocation to SDG&E and SoCalGas to $72.78% allocation. This reduces allocations to each of the utilities by over $1 million in corporate center costs and reduces insurance costs by $1,165,000 (0.9%) to SDG&E and $1,565,000 to SoCal Gas (4.1%).

7. Set the rates for the Allowance for Funds Used During Construction in the results of operations model at 41 basis points before SDG&E's authorized rate of return at 62 basis points below SoCalGas' authorized rates of return to reflect AFUDC rates recorded in 2017 that includes short-term debt components.
8. Reject funding for SDG&E's contribution to the Edison Electric Institute ($732,000).
9. Reduce SDG&E's Test Year A&G rates by $326,000 (before allocation to transmission) for base year dues and donations, sponsorships (including naming rights to the SDG&E Silver Line), and clothing and other gear, and reduce SoCal's rates by $155,000 for donations and gear.
10. Return Unprotected Excess Accumulated Deferred Income taxes to customers over 6 years. The effect would be to reduce rates by $5,533,000 for SD&GE and $1,598,000 for SoCalGas.
11. Project that Average Rate Adjustment Method (ARAM) costs returned to ratepayers should be increased in the Post Test Year period by $4.4 million more for SoCalGas and $2.9 million more for SDG&E than the utilities have assumed.
12. Reduce SoCal Gas property taxes charged as current operating expenses by $18,517,000 to correct two errors in the estimate of tax assessments - an error in the calculation of deferred taxes and the exclusive use of an anomalous figure that was inflated only in 2016 and increased SoCal's forecast assessment by about $900 million.
13. Reduce SDG&E property taxes charged as current operating expenses by $9.389,000 to correct the same error in the calculation of deferred taxes as SoCal and to modify an inflated forecast of the property tax rate paid by SDG&E.
14. Reduce SoCalGas' franchise fee percentage from 1.3720% to 1.2918%, reducing base margin by $2,335,000 and reducing costs in balancing accounts by about $900,000.
15. Reduce fossil decommissioning cost estimates for SDG&E by 15% for higher scrap metal prices and lower contingencies, which reduce the negative net salvage percentages associated with generating plant depreciation.
16. Reduce SDG&E's materials and supplies rate base by $17,603,000 (15.3%) to reflect that hot gas path hardware that has been stored since 2014 should not be escalated and some will be used in 2019, and to change escalation methods. Reduce SoCalGas' M&S rate base by $835,000 (3.4%) for changed escalation methods.
17. Reduce SDG&E's cash working capital rate base by $15 million (CPUC jurisdiction) to include Greenhouse Gas credits as revenues made available to customers on the date of presentation and make several other changes to goods and services lags and to various operating cash balance sheet items.
18. Reduce SoCalGas' cash working capital rate base by $25.1 million, including using a six-year average of revenue lag days ($18.9 million) and various changes to balance sheet items.
19. Include customer deposits as an offset to rate base, reducing the revenue requirement by $6,679,000 for SDG&E and $7,781,000 for SoCal Gas, which would be offset by actual interest paid.

II. SoCalGas Customer Field Service and Meter Reading (SCG-18)

A. Overall Spending Pattern

SoCal forecasts 2019 O&M costs for Customer Service Field and Meter Reading at $170,021,000, which is an increase of $2.820 million over 2016 recorded adjusted costs of $167,201,000. This net change reflects an increase of $9.537 million over 2016 for Customer Service – Field, a decrease of $7.037 million for Customer Service – Meter Reading, and an increase of $0.320 million for Shared Services.[1]

SoCal's Field Service Operations in the aggregate showed only minor reductions in spending from 2016 to 2017. SoCal forecast total 2017 spending of $165,084,000, which is 1.0% less than 2016 recorded spending of $167,201,000.[2] The recorded 2017 spending was $162,803,000, which is 2.1% less than the forecast.[3]

However, when we look at broad categories of costs, we find that underspending relative to forecast was concentrated in Meter Reading and Meter Set Inspections.

For the four accounts related to Customer Service Field Operations, Supervision, Dispatch, and Support (2FC001.000 through 2FC004.000), the 2017 recorded costs were $144.4 million, while SoCal's forecast was $142.7 million. We make no adjustments to these costs based on the relationship of 2017 forecast and authorized costs.

The sum of Meter Reading Operations, Clerical, Supervision, and Support Costs (2FC006.000 through 2FC009.000) was $4.05 million, which was 25% less than a 2017 forecast of $5.39 million.

There was a significant difference in recorded and 2017 forecast costs for the MSA Inspection Program (a program to review meters for corrosion necessitated by AMI – 2FC005.000). The costs were estimated as $15.51 million (excluding costs paid through the Advanced Metering Balancing Account) but actually were $12.29 million, a difference of 20.8%.

The one shared service program in this area spent 10% less than forecast.

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[1] SCG-18-R, p. GRM-iii.
[2] SCG-18-WP page 1.
[3] Recorded data for 2017 capital and O&M spending were provided to TURN attached to an-e-mail from Chuck Manzuk to Hayley Goodson dated March 22, 2018.

Table 1: 2016 Recorded, 2017 Recorded and 2017 Forecast Spending: SoCal Customer Field Service (2016 $'000)

		2016 Recorded			2017 Recorded			2017 Forecast			2017 Actual vs. 2016		2017 Actual vs. 2017	
		Labor	Non-Labor	Total	Labor	Non-Labor	Total	Labor	Non-Labor	Total	Total	%	Total	%
1FC001.000	CSF - Operations	103,615	8,820	112,435	101,470	6,573	108,042	101,010	6,102	107,112	(4,393)	-3.9%	930	0.9%
1FC002.000	CSF - Supervision	10,744	656	11,400	9,908	521	10,429	9,389	605	9,994	(971)	-8.5%	435	4.4%
1FC003.000	CSF - Dispatch	9,661	145	9,806	10,249	139	10,388	8,838	224	9,062	582	5.9%	1,326	14.6%
1FC004.000	CSF - Support	14,924	1,511	16,435	14,021	1,507	15,527	14,121	2,381	16,502	(908)	-5.5%	(975)	-5.9%
	CSF - Subtotal	138,944	11,132	150,076	135,648	8,739	144,386	133,358	9,312	142,670	(5,690)	-3.8%	1,716	1.2%
1FC005.000	MSA Inspections	4,502	1,365	5,867	11,620	669	12,289	14,931	583	15,514	6,422	109.5%	(3,775)	-20.8%
1FC006.000	Meter Reading - Operations	6,727	305	7,032	2,176	92	2,268	3,665	76	3,741	(4,764)	-67.7%	(1,473)	-39.4%
1FC007.000	Meter Reading - Clerical	510	4	514	291	5	295	222	2	224	(219)	-42.6%	71	31.8%
1FC008.000	Meter Reading- Supervision	1,110	70	1,180	456	63	518	416	26	442	(662)	-56.1%	76	17.2%
1FC009.000	Meter Reading - Support	971	366	1,337	608	359	968	742	237	979	(369)	-27.6%	(11)	-1.1%
	Meter Reading - Subtotal	9,318	745	10,063	3,530	519	4,049	5,045	341	5,386	(6,014)	-59.8%	(1,337)	-24.8%
2200-0942.000	CS Field Staff Manager	1,050	144	1,194	1,190	168	1,358	1,384	130	1,514	164	13.8%	(156)	-10.3%
	Total Customer Service Field	153,814	13,386	167,200	151,988	10,095	162,083	154,718	10,366	165,084	(5,117)	-3.1%	(3,001)	-1.8%

ORA made no adjustments to SoCal's customer field services. TURN uses the 2017 data to inform its analysis and proposes to adjust three accounts, MSA inspections, Meter Reading, and the shared service Field Staff Manager. TURN's recommendations are summarized below. [4]

Table 2: 2016 Recorded Costs and SoCal and TURN 2019 Forecasts for Customer Field Services

	2016	2019 SoCal	2019 TURN	SoCal >TURN
2FC001.000 Customer Services Field - Operations				
Labor	103,615	105,018	105,018	0
Non-Labor	8,820	6,558	6,558	0
Total	112,435	111,576	111,576	0
2FC002.000 Customer Services Field - Supervision				
Labor	10,744	10,402	10,402	0
Non-Labor	656	668	668	0
Total	11,400	11,070	11,070	0
2FC003.000 Customer Services Field - Dispatch				
Labor	9,661	8,399	8,399	0
Non-Labor	145	290	290	0
Total	9,806	8,689	8,689	0
2FC004.000 Customer Services Field - Support				
Labor	14,924	13,944	13,944	0
Non-Labor	1,511	3,499	3,499	0
Total	16,435	17,443	17,443	0
2FC005.000 MSA Inspection Program				
Labor	4,502	16,099	14,972	1,127
Non-Labor	1,365	603	561	42
Total	5,867	16,702	15,533	1,169
2FC006.000 Meter Operations				
Labor	6,727	2,172	1,955	217
Non-Labor	305	47	47	0
Total	7,032	2,219	2,002	217
2FC007.000 Meter Clerical				
Labor	510	147	147	0
Non-Labor	4	1	1	0
Total	514	148	148	0
2FC008.000 Meter Supervision & Training				
Labor	1,110	334	334	0
Non-Labor	70	21	21	0
Total	1,180	355	355	0
2FC009.000 Meter Support				
Labor	971	288	288	0
Non-Labor	366	17	17	0
Total	1,337	305	305	0
2200-0942.000 CS Field Staff Manager				
Labor	1100	1384	1,203	181
Non-Labor	157	130	154	-24
Total	1,258	1514	1,357	158
Total Customer Services Field				
Labor	153,864	158,187	156,662	1,525
Non-Labor	13,399	11,834	11,815	19
Total	167,264	170,021	168,477	1,544

[4] All tables in this testimony are in thousands of 2016 constant dollars unless otherwise noted.

B. MSA Inspection Program (2FC005.000)

The meter set assembly (MSA) inspection program is an unintended consequence of the AMI program that is increasing SoCal's costs. Meter readers used to have the job of inspecting meters for corrosion or other visually obvious damage when they read meters. Now that AMI has supplanted most of the meter readers, SoCal had to hire a new group of staffers, more expensive than meter readers, to inspect meters for corrosion over a time frame specified by the US Department of Transportation which approximates once every two years. This program is ramping up rapidly as AMI meters are installed.

SoCal spent $5,867,000 in 2016 and forecasts spending $16,702,000 in TY 2019.[5] On the way to this forecast, SoCal forecasts spending $15,514,000 in 2017. Actual 2017 spending was $12,289,000, which was 20.8% less. SoCal built a model to explain its spending forecast covering 15 pages of workpapers,[6] but the 2017 results were not well explained by the model. TURN has requested further information to analyze 2017 operations (TURN-SEU DR 67), but makes a conservative recommendation at this time – to reduce spending by 7% (approximately a third of the 2017 percentage of underspending) in TY 2019. TURN may update this recommendation after receiving additional information from SoCal.

Table 3: Forecast Costs for MSA Inspection Program (2FC005.000)

	Labor	Non-Labor	Total
SoCal Forecast 2019	16,099	603	16,702
Less 7%	(1,127)	(42)	(1,169)
TURN Forecast 2019	14,972	561	15,533

C. Meter Reading (2FC006.000)

SoCal spent $7,032,000 on Meter Reading – Operations in 2016, a cost category that "includes part-time meter readers who are dispersed across SoCalGas's operating bases to capture manual reads at customer premises for customers enrolled in the Opt Out Program ..., customers located in AMI's escalated cities ..., and customers affected by AMI MTU failures...[7]"This figure is projected to drop significantly as AMI installation is completed. SoCal's forecast in 2019 is

[5] SCG-18-WP page 106
[6] SCG-18 Workpaper pages 114-128.
[7] SCG-18-WP page 131 (projected customer counts for each category are excluded).

$2,219,000. On the way, SoCal forecast that it would spend $3,741,000 in 2017.[8] Actual 2017 spending was considerably lower at $2,268,000, 39.8% below SoCal's 2017 forecast and almost equal to the 2019 forecast.

We propose a 10% adjustment to 2019 meter reading – operations labor costs. This adjustment accounts for the fact that 2017 actual labor costs were approximately the same as 2019 projected costs, and that SoCal Gas will need to read fewer meters in 2019 than it read in 2017. We also identified one assumption related to the number of meters read per hour (3.7)[9] which may be understated. That element of SoCal's forecast is based on the assumption that all meters are spread out across the service area. This is likely to be a good assumption for opt-out meters and AMI meters that failed but may not be a good assumption for AMI meters located where they cannot be read ("escalated jurisdictions"), which may be more concentrated. SDG&E estimates that its staff can read 4.8 opt-out meters per hour (3.3 minutes on site plus 9.2 minutes drive time in 2016 equals 12.5 minutes),[10] so that SoCalGas is 23% less productive..

Table 4: Forecast Costs for Meter Reading Operations (2FC006.000)

	Labor	Non-Labor	Total
SoCal Actual 2017	2,176	92	2,268
SoCal Forecast 2019	2,172	47	2,219
Less 10% labor	(217)	-	(217)
TURN Forecast 2019	1,955	47	2,002

D. Customer Service Field Staff Manager (Account 2200-0942.000)

SoCal spent $1,194,000 in 2016 and forecasts spending $1,514,000 in 2019. For this account, SoCal used a five-year average for its test year forecast, which increased 2019 spending above 2016 levels.[11] There were no incremental programmatic changes forecast.

SoCal's 2017 forecast was also $1,514,000 due to the five-year average. SoCal's actual spending in 2017 was $1,358,000. Spending was above 2016 levels but well below SoCal's average.

[8] SCG-18 Workpaper page 131.
[9] SCG-18 Workpaper page 139
[10] SDG&E-17, Workpaper pages 21 (premises time) and 23 (drive time)
[11] SCG-18 Workpaper page 163.

SoCal's five-year average is an unreasonable way to forecast this account. Total costs declined in each year from 2012-2016, and the two highest – and earliest – years 2012 and 2013, are statistically significantly higher than the last four years (2014-2017).

TURN therefore proposes to forecast this account using a four-year average (2014-2017), leaving out the first two years. This figure is also almost identical to the 2017 recorded value (but with higher labor and lower non-labor costs netting each other in the total).

Table 5: Recorded and Forecast Costs for Customer Field Staff Manager Support (2200-0942.000)

Years	Labor	Non-Labor	Total
2012	1,567	74	1,641
2013	1,520	115	1,635
2014	1,347	165	1,512
2015	1,225	137	1,362
2016	1,050	144	1,194
2017	1,190	168	1,358
2017	1,384	130	1,514
2018	1,384	130	1,514
2019	1,384	130	1,514
Base 2014-2017	1,203	154	1,357
Increment 2018-2019	0	0	0
TURN Forecast	**1,203**	**154**	**1,357**
SoCal> TURN	181	-24	158

III. SoCal Gas Customer Service Office Operations (SCG-19)

A. Overall Spending Pattern

SoCal's 2016 recorded spending for Customer Service – Office Operations (Non-Shared and Shared Services) was $92,418,000.[12] SoCal forecast that by 2019, office operations spending would fall 2.8% to $89,785,000[13] driven largely by lower postage costs (from customers not requiring paper bills) and some non-labor savings from Fueling Our Future and advanced

[12] SoCal refers to this total as $92,422,000 on page 1 of SCG-19-WP-R and in its testimony in Table MB-1, but the sum of the non-shared and shared services summary workpapers (pages 3 and 114) equals $92,418,000. TURN uses this lower number because this number corresponds with the workpapers showing cost center break-outs, which we used in our calculations.

[13] SoCal refers to this total forecast as $89,789,000 on page 1 of SCG-19-WP-R and in its testimony in Table MB-1, but the sum of the non-shared and shared services summary workpapers (pages 3 and 114) equals $89,785,000. TURN uses this lower number because this number corresponds with the workpapers showing cost center break-outs, which we used in our calculations.

metering. SoCal predicted that its labor costs would rise by $1.9 million, with $1.788 million of that associated with Non-Shared Services and $0.155 million associated with Shared Services.[14]

SoCal's Office Operations in the aggregate showed a significant reduction in spending from 2016 to 2017. SoCal forecast total 2017 spending of $92,604,000[15], which is slightly above 2016 recorded spending of $92,418,000.[16] The recorded 2017 spending was 5.3% lower than forecast at $87,722,000. Labor spending was significantly reduced relative to SoCal's forecast, as was postage. Non-labor expenses were slightly higher than SoCal's 2017 forecast. Nine of the thirteen accounts in this area had 2017 spending that was at least 5% below SoCal's forecast, while only one had significantly larger amounts of spending in 2017, as shown in Table 6.

[14] SCG-19-WP-R pages 1, 3, 114.
[15] [15] SoCal refers to this total forecast as $92,604,000 on page 1 of SCG-19-WP-R, but the sum of the non-shared and shared services summary workpapers (pages 3 and 114) equals $92,600,000. TURN uses this lower number because this number corresponds with the workpapers showing cost center break-outs, which we used in our calculations.
[16] SCG-19-WP-R page 1.

Table 6: 2016 Recorded, 2017 Recorded and 2017 Forecast Spending: SoCal Customer Office Operations (2016 $'000)

		2016 Recorded				2017 Recorded				2017 Forecast				2017 Actual vs. 2016 Actual		2017 Actual vs. 2017 Forecast	
		Labor	Non-Labor	NSE	Total	Labor	Non-Labor	NSE	Total	Labor	Non-Labor	NSE	Total	Total	%	Total	%
2OO000.000	Call Center Operation	29,794	349		30,143	27,768	315	-	28,084	29,438	346		29,784	(2,059)	-6.8%	(1,700)	-5.7%
2OO001.000	Call Center Support	4,760	3,022		7,782	4,892	2,646	-	7,538	5,522	3,066		8,588	(244)	-3.1%	(1,050)	-12.2%
2OO002.000	Branch Office	8,989	2,602		11,591	8,714	2,426	-	11,140	8,795	2,559		11,354	(451)	-3.9%	(214)	-1.9%
2OO003.000	Billing Services	6,632	335		6,967	5,801	142		5,942	6,567	49		6,616	(1,025)	-14.7%	(674)	-10.2%
2OO004.000	Credit and Collections	2,966	1,255		4,221	2,941	1,254		4,195	3,003	1,255		4,258	(26)	-0.6%	(63)	-1.5%
2OO004.001	C&C Postage	0	0	995	995	-	(0)	906	906	0	0	995	995	(89)	-8.9%	(89)	-8.9%
2OO005.000	Remittance Processing	1,579	3,349	0	4,928	1,702	3,947		5,649	1,681	3,121	0	4,802	721	14.6%	847	17.6%
2OO005.001	Postage	0	0	17,011	17,011	-	0	15,464	15,464	0	0	16,340	16,340	(1,547)	-9.1%	(876)	-5.4%
2OO006.000	Other Office Operations and Tech	1,909	155		2,064	2,026	417	-	2,442	2,783	221		3,004	378	18.3%	(562)	-18.7%
2OO007.000	Measurement Data Operations	812	501		1,313	777	436	-	1,213	925	423		1,348	(100)	-7.7%	(135)	-10.1%
Subtotal	Subtotal	57,441	11,568	18,006	87,015	54,622	11,581	16,370	82,573	58,714	11,040	17,335	87,089	(4,442)	-5.1%	(4,516)	-5.2%
2200-0354.000	Major Market Credit and Collections	1,285	323	0	1,608	1,072	310		1,381	1,307	316	0	1,623	(227)	-14.1%	(242)	-14.9%
2200-0355.000	Payment Processing	2,496	985	5	3,486	2,586	794	5	3,385	2,521	985	5	3,511	(101)	-2.9%	(126)	-3.6%
2200-2247.000	Manager of Remittance Processing	308	1	0	309	380	2		382	376	1	0	377	73	23.6%	5	1.3%
Subtotal	Subtotal Shared Services	4,089	1,309	5	5,403	4,037	1,105	5	5,148	4,204	1,302	5	5,511	(255)	-4.7%	(363)	-6.6%
Total	Total	61,530	12,877	18,011	92,418	58,659	12,687	16,375	87,722	62,918	12,342	17,340	92,600	(4,696)	-5.1%	(4,878)	-5.3%

ORA made only a single adjustment to SoCal's Customer Office Operations, to remove two Staffers from Customer Call Center Support. TURN uses the 2017 data to inform its analysis and proposes to adjust a number of accounts. TURN forecasts a spending level of $85,628,000. This amount is $4,157,000 (4.6%) less than SoCalGas' request. TURN's recommendations are summarized in Table 7Table 54.

Table 7: 2016 Recorded Costs and SoCal and TURN 2019 Forecasts for Customer Office Operations

	2016 Recorded	SDG&E 2019	TURN 2019	SoCal>TURN	
2O0000.000	Customer Call Center Operations				
Labor	29,794	29,525	27,191	2,334	-7.91%
Non-Labor	349	347	319	28	-8.12%
Total	30,143	29,872	27,510	2,362	-7.91%
2O0001.000	Customer Call Center Support				
Labor	4,760	5,742	5,503	239	-4.16%
Non-Labor	3,022	3,282	3,050	232	-7.08%
Total	7,782	9,024	8,553	471	-5.22%
2O0002.000	Branch Offices				
Labor	8,989	9,322	9,241	81	-0.87%
Non-Labor	2,602	2,689	2,644	45	-1.68%
Total	11,591	12,011	11,885	126	-1.05%
2O0003.000	Billing Services				
Labor	6,632	6,216	5,801	415	-6.68%
Non-Labor	335	48	142	-94	195.83%
Total	6,967	6,264	5,943	321	-5.13%
2O0004 000	Credit and Collections				
Labor	2,966	2,845	2,845	0	0.00%
Non-Labor	1,255	1,255	1,255	0	0 00%
Total	4,221	4,100	4,100	0	0.00%
2O0004.001	C&C Postage				
NSE	995	995	951	44	-4.42%
Total	995	995	951	44	-4.42%
2O0005 000	Remittance Processing				
Labor	1,579	1,681	1,681	0	0.00%
Non-Labor	3,349	2,313	2,313	0	0.00%
Total	4,928	3,994	3,994	0	0.00%
2O0005.001	Remittance Postage				
NSE	17,011	13,812	13,536	276	-2.00%
Total	17,011	13,812	13,536	276	-2.00%
2O0006.000	Customer Office Ops and Tech				
Labor	1,909	2,973	2,499	474	-15.93%
Non-Labor	155	206	360	-154	74.81%
Total	2,064	3,179	2,859	320	-10.05%
2O0007.000	Measurement Data Operations				
Labor	812	925	812	113	-12.22%
Non-Labor	501	117	117	0	0.00%
Total	1,313	1,042	929	113	-10.84%
Subtotal					
Labor	57,441	59,229	55,573	3,656	-6.17%
Non-Labor	11,568	10,257	10,200	57	-0.56%
NSE	18,006	14,807	14,487	320	-2.16%
Total	87,015	84,293	80,260	4,033	-4.78%
2200-0354.000	Major Market Credit and Collections				
Labor	1,285	1,307	1,183	124	-9.49%
Non-Labor	323	297	297	0	0 00%
Total	1,608	1,604	1,480	124	-7.73%
2200-0355.000	Payment Processing				
Labor	2,496	2,521	2,521	0	0.00%
Non-Labor	985	985	985	0	0.00%
NSE	5	5	5	0	0.00%
Total	3,486	3,511	3,511	0	0 00%
2200-2247 000	Manager of Remittance Processing				
Labor	308	376	376	0	0.00%
Non-Labor	1	1	1	0	0.00%
Total	309	377	377	0	0.00%
Subtotal Shared Services					
Labor	4,089	4,204	4,080	124	-2.95%
Non-Labor	1,309	1,283	1,283	0	0.00%
NSE	5	5	5	0	0 00%
Total	5,403	5,492	5,368	124	-2.26%
Total Customer Office Operations					
Labor	61,530	63,433	59,653	3,780	-5.96%
Non-Labor	12,877	11,540	11,483	57	-0.50%
NSE	18,011	14,812	14,492	320	-2.16%
Total	92,418	89,785	85,628	4,157	-4.63%

B. Customer Contact Center Operations (2OO000.000)

SoCal Gas spent $30,173,000 in 2016 on its call center and projects spending 0.9% less ($29,872,000) in 2019. However, this relatively small change is made up of a variety of offsetting adjustments. SoCal's 2017 forecast was $29.784,000 but its actual spending was $28,084,000, a 5.8% reduction from its forecast.

There is a serious trend toward cost reductions in SoCal's call center operations that SoCal is not capturing in its analysis. The total number of calls is going down rapidly. The number of calls handled by Customer Service Representatives (CSRs) is going down even faster, as the Interactive Voice Response (IVR) unit takes more and more calls. The average handle time (AHT) is declining, which means that a CSR can take more calls in a given period of work time. Figure 1 shows the big picture from 2014-2018.

Figure 1: SoCalGas Phone Calls Answered by CSRs and IVR, 2014-2018

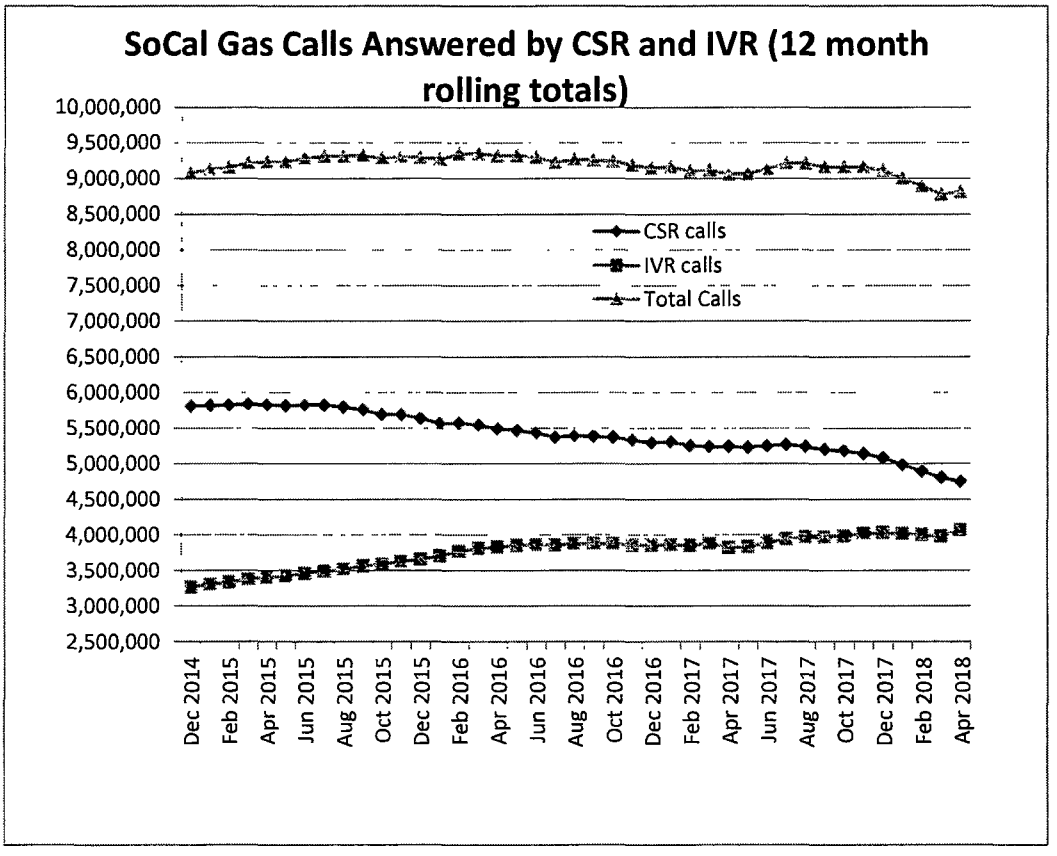


Table 8below gives a smaller snapshot. It compares SoCal's **2019** forecast of phone calls with the actual phone calls received in the 12 months ending in April 2018.

Table 8: Comparison of SoCalGas 2019 Call Forecast with Latest Actual Number of Calls

	CSR	IVR	Total Answered
SoCalGas 2019 Forecast	4,908,129	4,011,889	8,920,018
12 months ending April 2018	4,746,318	4,068,896	8,815,214

SoCalGas CSRs have already answered fewer phone calls in the last year than SoCal forecasts for 2019. One of the reasons is that number of calls per active meter is going down and is below SoCal's estimate. (Table 9)

Table 9: SoCalGas Calls Per Active Meter 2016-2017[17]

	CSR	IVR	Total
2016 Transaction Volume	5,294,765	3,856,089	9,150,854
2016 Active Meters	5,700,917	5,700,917	5,700,917
Calls Per Active Meter	0.93	0.68	1.61
	CSR	**IVR**	**Total**
2017 Transaction Volume	5,079,591	4,031,326	9,110,917
2017 Active Meters	5,731,397	5,731,397	5,731,397
Calls Per Active Meter	0.89	0.70	1.59

In other words in 2017, the number of phone calls per customer answered by a CSR fell by 4.5%. It likely declined further in 2018 as the number of calls on a twelve-month rolling total basis fell precipitously.

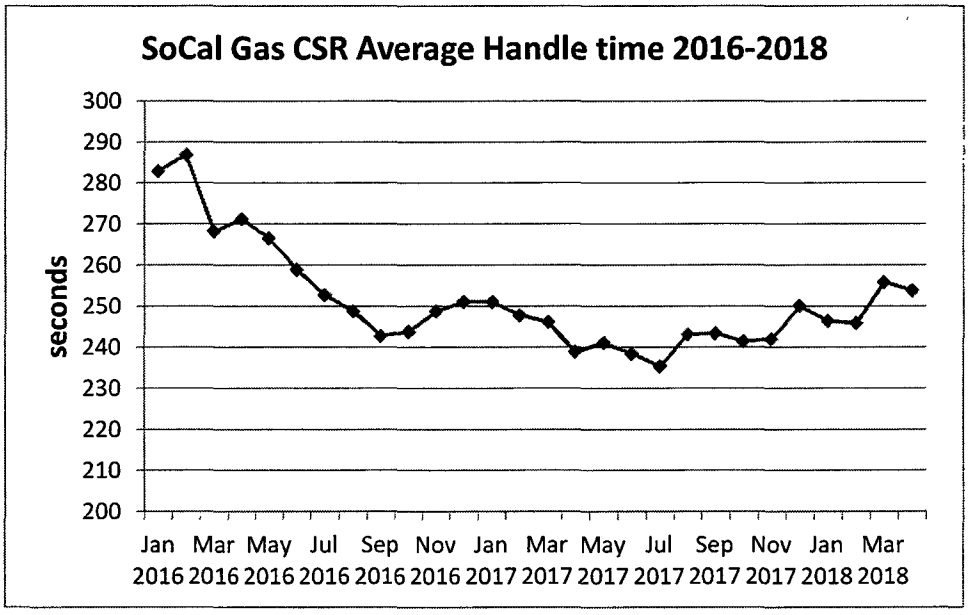
There are two other parameters that SoCal is getting wrong. The first is the claim that Average Handle Time (the average time a CSR spends on the phone with a customer) is high and needs to rise even more for reasons of safety (capturing customers' e-mails, etc.). TURN DR 62-01h shows that this claim is wrong. Average handle time went down dramatically in 2017. SoCal's workpapers claim that a Fueling Our Future idea reduces AHT by 12 seconds, but a request to

[17] TURN-SEU-DR 62-07.

collect and verify e-mail addresses from customers for safety reasons added a process that takes an extra 15 seconds that SoCal claims to have implemented in July 2017, and a process to encourage paperless billing added another 2.6 Seconds, implemented late in 2017.[18] So, in SoCal's analysis, there should be an extra 5.6 seconds of handle time *relative to 2016* by the end of 2017 when all of these changes were implemented.

Handle time in 2017 in fact dropped by 18 seconds (from 261 seconds in 2016 to 243 seconds in 2017).[19] It rose a little near the end of the year but stayed below 2016 levels despite the implementation of programs to raise it. (Figure 2)

Figure 2: SoCalGas CSR Average Handle Time (seconds) 2016-2018



The other important and related parameter is the number of phone calls that are answered by one Full-Time Equivalent CSR over the course of a year. The AHT and calls per FTE are related because the longer the CSR needs to stay on the phone with the customer (on average), the fewer calls can be taken over the course of the year. SoCal made an assumption based on 2016 data of

[18] All of these items are shown on SCG-19, Workpaper page 8 for part-year 2017.
[19] TURN DR 62-01h.

13,524 calls per year.[20] 2016 had the lowest CSR efficiency of the past four years – because of large numbers of high-bill complaints and effects of Aliso Canyon.[21] In 2017, the figure was 14,071 calls per CSR, which is quite consistent with the other years excepting 2016.

Table 10: Calls Answered per SoCalGas CSR FTE, 2014-2017[22]

	CSR Answered Calls	All CSR FTEs (Includes Capital)	CSR Hrs Worked	Calls per FTE
2014	5,807,113	410	689,261	14,164
2015	5,635,135	404	672,910	13,948
2016	5,294,765	392	650,283	13,524
2017	5,079,591	361	582,962	14,071

Having provided this information to demonstrate that SoCalGas is receiving fewer phone calls and is answering them in a way that they can answer more phone calls per staffer, we now create TURN's 2019 forecast. We start with SoCal's forecast of the number of calls taken by CSRs (4.908 million) and its total level of labor costs to support that forecast ($29,652,000). We then took the following steps.

1. We develop two alternative forecasts of the number of phone calls – "Current Levels" or the calls taken by CSRs for 12 months ending April 2018 (4.746 million) which has 3.0% fewer calls than SoCal's forecast. The second case "TURN Recommended" takes a further 3% reduction from that level to 4.604 million calls (encompassing the 0.30 million calls that SoCal removed for AMI). The TURN recommended case has 6.2% fewer calls.

2. The second area for reduction is the number of calls taken by a Full-Time Equivalent CSR. SoCal claims that a CSR can take 13,524 calls per year, which is 3.89% fewer calls than the 2017 value of 14,071 calls per year.

3. Putting the two reductions together, SoCal would need 7.06% fewer employees to answer calls in the Current Levels case and 9.84% fewer employees in the TURN recommended case.

4. These reductions are then applied to 80% of SoCalGas' labor forecast, recognizing that the cost of an unknown number of call center employees are not related to the number of phone calls.

[20] SCG-19, Workpaper page 26. 5,294,765 calls divided by 392 FTE in 2016 is 13,524 calls per FTE.
[21] TURN-SEU DR 62-04.
[22] TURN-SEU DR 62-11.

5. This yields a reduction of $1,674,000 at Current Levels and $2,335,000 in the TURN Recommended case.

6. TURN then takes a proportionate reduction in non-labor expenses.

The calculation is shown in Table 11.

Table 11: TURN's Forecast Reduction to SoCalGas Call Center Expenses

	Calls	% reduction
SoCal Gas	4,908,129	
Current Level	4,746,318	-3.30%
TURN Recommended - 3% reduction from current level, includes AMI Call reduction	4,603,928	-6.20%
	Calls per FTE	
SoCalGas	13524	
TURN	14071	-3.89%
Total reduction (multiply 1 minus call reduction times 1 minus FTE reduction)		
to Current Level	-7.06%	
to TURN Recommended	-9.84%	
SoCalGas labor	29,652	
Apply the reduction to 80% of SoCal labor		
to Current Level	$ (1,674)	
to TURN Recommended	$ (2,335)	
SoCal Gas non-labor	$ 345	
Non-labor same % reduction		
to Current Level	(19)	
to TURN Recommended	(27)	

Table 12 sets TURN's forecast in the context of recorded costs and SoCalGas' forecast.

Table 12: Recorded and Forecast Costs in Customer Contact Center Operations (1OO000.000)

	Years	Labor	Non-Labor	Total
Recorded	2012	34,380	379	34,758
Recorded	2013	33,124	352	33,476
Recorded	2014	31,504	408	31,913
Recorded	2015	30,870	328	31,198
Recorded	2016	29,794	349	30,143
Recorded	2017	27,768	315	28,084
SoCal Forecast	2017	29,439	345	29,784
SoCal Forecast	2018	30,562	354	30,916
SoCal Forecast	2019	29,526	346	29,872
TURN Call Center Forecast		**27,191**	**319**	**27,510**
SoCal > TURN		2,335	27	2,362
TURN Alternative Current Level Forecast		*27,852*	*327*	*28,179*

C. Customer Contact Center Support (2OO001.000)

SoCal spent $7,782,000 in 2016 and forecasts $9,024,000 in 2019.[23] ORA reduced this figure to $8,857,000 by removing two staff members for expansion of the special investigation team.[24] TURN recommends a reduction to SoCal's forecast of $471,000, resulting in $8,553,000, by analyzing 2017 spending. TURN's recommendation overlaps with $51,000 of ORA's $167,000 reduction which was part of SoCal's 2017 forecast.

TURN examined the 2017 level of spending. SoCal forecast an increase in spending of $806,000 from 2016 to 2017.[25] Spending actually decreased by $244,000 in 2017 and was $1,050,000 less than SoCal forecast. Instead of SoCal's forecast of a 16% increase in labor spending, it increased by 2.8%. The 1% forecast increase in non-labor spending is compared to a 12% decrease in actual non-labor spending.[26]

[23] SCG-19-Workpaper page 28.
[24] ORA-17, p. 14.
[25] SCG-19-WP-R pages 28-29.
[26] SCG-19-WP-R page 29 (showing labor and non-labor forecasted increases for 2017).

In TURN-SEU-13, SoCalGas explained that a number of new positions were not filled, $76,000 of productivity savings were brought forward from 2019, and while they backfilled positions used to support the Aliso Canyon activities, other employees went on extended absences.

After examining labor spending in 2017, we use a 2017 baseline for labor. SoCal's forecast increase of $762,000 was comprised of $212,000 in annualization of positions added in 2016 plus $341,000 in return of staff from working on Aliso Canyon, plus $209,000 in new positions.[27] TURN recommends allowing the $132,000 in actual increased 2017 labor. We accept SoCal's incremental increases and decreases for 2018-2019 ($296,000, comprising $220,000 of incremental costs plus the $76,000 of 2019 savings that were achieved early, so that those savings are not double-counted), and add half of the remaining incremental changes, recognizing that significant changes happen, and unplanned vacancies often occur when running a large organization.

For non-labor spending, we use a baseline of a 2016-2017 two-year average to reflect some portion of the lower contract spending. To these figures are added SoCal's incremental requests for 2018-2019 ($216,000).

The following table presents these adjustments.

[27] SCG-19 Workpaper pages 29-30.

Table 13: Recorded and Forecast Costs in Customer Contact Center Support (1OO001.000)

	Years	Labor	Non-Labor	Total
Recorded	2012	5,393	3,819	9,212
Recorded	2013	5,796	3,734	9,530
Recorded	2014	5,397	3,328	8,725
Recorded	2015	4,929	2,942	7,871
Recorded	2016	4,760	3,022	7,782
Recorded	2017	4,892	2,646	7,538
SoCal Forecast	2017	5,522	3,066	8,588
SoCal Forecast	2018	5,753	3,254	9,007
SoCal Forecast	2019	5,742	3,282	9,024
	2017 labor			
Base	2016-17 NL	4,892	2,834	7,726
Increment	2018-19	296	216	512
	half of 2016-17 L	315		
TURN Forecast		**5,503**	**3,050**	**8,553**
SoCal > TURN		239	232	471

D. Branch Offices (2OO002.000)

SoCal spent $11,591,000 in 2016 and forecast spending $12,012,000 in 2019.[28] ORA did not contest SoCal's forecast. As discussed below, TURN's forecast is $11,885,000 which is $127,000 below SoCal's request.

SoCal's interim forecast was $11,355,000 in 2017, slightly below 2016, to reflect the full year effect of several site closures. SoCal forecast additional spending of $657,000 to hire a coordinator and to pursue additional compliance with the Americans with Disabilities Act (ADA) starting in the 2019 test year.[29]

Actual 2017 spending was about 1% below SoCal's forecast for labor and 5% below SoCal's forecast for non-labor costs.

[28] SCG-19-WP-R page 43.
[29] SCG-19-WP-R pages 45-46 ($527,000 in Labor and $130,000 in Non-Labor).

TURN uses a 2017 baseline for labor but recommends a two-year average for non-labor expenses in light of the more significant 2017 decline relative to the forecast and adds the incremental spending for 2018-2019.

TURN also notes that SoCal has not explained why it is reasonable to expect that all of the incremental ADA activities it lists in its workpapers will be recurring annually, aside from the addition of an ADA coordinator.[30] For instance, "certification of a large chain of stores that had previously self-certified" would seem to be a one-time activity.[31] However, TURN understands that the Center for Accessible Technology (CforAT), SoCal, and SDG&E will serve joint testimony on May 14 that addresses ADA compliance activities and expenditures during the 2019 GRC cycle. TURN will examine SoCal's proposed forecasts of incremental ADA compliance costs in Branch Offices in light of that testimony once we have seen it. TURN may propose additional adjustments to Branch Offices or other activities as a result of that review.

Table 14: Recorded and Forecast Costs in Branch Offices (2OO002.000)

	Years	Labor	Non-Labor	Total
Recorded	2012	8,891	2,766	11,657
Recorded	2013	9,011	2,568	11,579
Recorded	2014	9,076	2,838	11,914
Recorded	2015	9,053	2,576	11,629
Recorded	2016	8,989	2,602	11,591
Recorded	2017	8,714	2,426	11,140
SoCal Forecast	2017	8,796	2,559	11,355
SoCal Forecast	2018	8,796	2,559	11,355
SoCal Forecast	2019	9,323	2,689	12,012
Base	2017 L, 2016-17 NL	8,714	2,514	11,228
Increment	2018-2019	527	130	657
TURN Forecast		**9,241**	**2,644**	**11,885**
SoCal > TURN		82	45	127

[30] SCG-19-WP-R pages 45-46.
[31] SCG-19-WP-R page 45.

E. Billing Services (2OO003.000)

SoCal spent $6,967,000 in 2016 and forecast spending $6,265,000 in 2019.[32] ORA does not oppose SoCal's forecast. TURN's forecast is $5,942,000, based on a rapid reduction in spending in 2017.

SoCal's 2017 forecast was $6,617,000, reflecting small increases to annualize positions in place during part of 2016 being offset by Fueling Our Future reductions. On the contract side, a one-time $217,000 was removed because a backlog that existed in 2016 was removed in 2017, and some additional FOF reductions were found.[33] SoCal forecasts further FOF reductions in 2018 and 2019 affecting both labor and non-labor spending.

TURN's review of 2017 spending suggests that labor spending was $766,000 below SoCal's forecast for that year. Non-labor spending was $72,000 above SoCal's forecast though it reflected that the contractors had reduced the 2016 backlog.

TURN uses a base year of 2017 for the entire activity with no additional FOF reductions. Labor spending in 2017 was already $415,000 below the 2019 forecast, which includes FOF reductions, while non-labor FOF reductions slated for 2017 did not appear to materialize. Our recommendation is shown in Table 15.

[32] SCG-19-WP-R page 50.
[33] SCG-19, Workpaper pages 51-56.

Table 15: Recorded and Forecast Costs in Billing (2OO003.000)

	Years	Labor	Non-Labor	Total
Recorded	2012	7,832	265	8,097
Recorded	2013	7,257	100	7,357
Recorded	2014	6,692	130	6,822
Recorded	2015	6,868	109	6,977
Recorded	2016	6,632	335	6,967
Recorded	2017	5,801	142	5,942
SoCal Forecast	2017	6,567	50	6,617
SoCal Forecast	2018	6,083	49	6,132
SoCal Forecast	2019	6,216	49	6,265
Base	2017	5,801	142	5,943
No Increment				
TURN Forecast		**5,801**	**142**	**5,943**
SoCal > TURN		415	-93	322

F. Credit and Collections Postage (2OO004.001)

SoCal spent $995,000 on credit and collections postage in 2016 and forecast the same spending in 2019 based on the same postage rates and same number of notices sent out.[34] Spending in 2017 was $906,000, a reduction of 8.9%. There has been a decline in the number of collection notices sent out in each year since 2014, despite extra notices in the cold winter of 2016. The number of notices sent in 2017 was 5.8% below that in 2016.

Table 16: Collection Notices Mailed 2014-2017[35]

	Annual	Jan-Mar	Rest of Year
2014	2,573,318	693,917	1,879,401
2015	2,481,773	659,520	1,822,253
2016	2,380,764	728,622	1,652,142
2017	2,243,648	648,407	1,595,241
2018		593,831	

TURN recommends a two-year average of 2016-2017 and a spending level of $951,000 to reflect SoCalGas' lower cost and the reduced number of notices mailed by SoCalGas in 2017, while

[34] SCG-19-WP-R pages 65 and 71.
[35] From the Attachment to TURN-SEU DR 62-14.

also recognizing that seasonal factors and economic conditions influence the number of collections notices mailed.

G. Remittance Processing Postage (2OO005.001)

SoCalGas spent $17,011,000 on postage in 2016. It forecast declines to $16,340,000 in 2017, $15,087,000 in 2018 and $13,812,000 in 2019. Actual postage spending in 2017 was $15,464,000, a reduction of 5.4% relative to the forecast. In TURN-SEU DR 62-16, SoCal provided information on this decline. In particular, SoCal sent out 42.96 million pieces of mail in 2017, 1.8% less than the 43.74 million that it forecast. Applying the forecast 2017 postage rates to the lower mail volume, the cost would decline by $271,000. Postage rates were also lower by $605,000, partly due to a one-time credit of $284,000.

Overall, the rate of attrition in paperless mail has been greater than SoCal has forecast, as shown in Table 17.

Table 17: Trends in Paper and Electronic Bills for SoCalGas

	Paper (mailed)	My account suppressed	Consolidator e-bills	Total	% paper
Recorded					
2012	4,182,158	1,187,465	218,826	5,588,450	74.8%
2013	4,022,410	1,338,301	249,793	5,610,505	71.7%
2014	3,952,095	1,443,561	262,221	5,657,876	69.9%
2015	3,761,048	1,665,269	268,976	5,695,294	66.0%
2016	3,722,527	1,726,460	271,688	5,720,674	65.1%
2017	3,574,806	1,884,812	269,895	5,729,512	62.4%
6-month view					
2015 1st half	3,822,893	1,571,660	263,531	5,658,084	67.6%
2015 2nd half	3,699,203	1,758,879	274,421	5,732,503	64.5%
2016 1st half	3,745,851	1,694,040	268,954	5,708,845	65.6%
2016 2nd half	3,699,203	1,758,879	274,421	5,732,503	64.5%
2017 1st half	3,696,699	1,843,330	277,059	5,817,088	63.5%
2017 2nd half	3,452,912	1,926,294	262,731	5,641,936	61.2%
2018 1st quarter	3,531,931	2,019,596	225,440	5,776,967	61.1%
SoCal Forecast					
2017	3,639,702	1,843,734	277,038	5,760,473	63.2%
2018	3,560,896	1,968,117	283,909	5,812,922	61.3%
2019	3,482,475	2,095,306	291,015	5,868,796	59.3%

The total number of bills is underrunning SoCal's forecast by about half a percent in 2017 (5,729,000 bills per month throughout the year, compared to 5,761,000 forecast). And the attrition of paper bills is higher (62.4% for the year compared to 63.2% for SoCal, and 61.2% for the last nine months ending in March, 2018).

In the last half of 2017, there were fewer paper bills than SoCalGas forecast for 2019. Based on all this information, TURN forecasts that the paper bill volume is likely to be less than SoCal has projected by about 2%, and thus forecasts a 2% decline in postage costs at current rates. This 2% reduction is equivalent to 70,000 fewer paper bills per month or about 835,000 annually. Any changes to average postage rates will be captured in the update phase of this case.

TURN therefore forecasts postage costs of $13,576,000, a $276,000 reduction to SoCal's forecast. (Table 18)

Table 18: Recorded and Forecast Costs in Remittance Postage (2OO005.001)

	Years	Labor	Non-Labor	NSE	Total
Recorded	2012	0	0	18,232	18,232
Recorded	2013	0	0	17,739	17,739
Recorded	2014	0	0	17,959	17,959
Recorded	2015	0	0	17,727	17,727
Recorded	2016	0	0	17,011	17,011
Recorded	2017	0	0	15,464	15,464
SoCal Forecast	2017	0	0	16,340	16,340
SoCal Forecast	2018	0	0	15,087	15,087
SoCal Forecast	2019	0	0	13,812	13,812
SoCal Forecast	2019	-	-	13,812	13,812
Minus 2 percent		-	-	(276)	(276)
TURN Forecast	**2019**	-	-	**13,536**	**13,536**
SoCal > TURN		0	0	276	276

H. Other Office Operations and Technology (2OO006.000)

SoCal Gas spent $2,064,000 on other office operations and technology in 2016 but proposes to increase the amount by $1,115,000 (54%) to $3,179,000 in 2019.[36] ORA does not oppose

[36] SCG-19-WP-R page 93.

SoCal's request. TURN forecasts $2,859,000 (a reduction of $320,000), including $474,000 less in labor expenses and $154,000 more in non-labor expenses.

SoCal forecast that it would increase spending to $3,004,000 in 2017, with labor spending rising by $874,000 from $1,909,000 to $2,783,000.[37] Few if any of the new staffers that SoCal proposed to hire were actually hired, as labor spending rose by only $117,000 in 2017 to $2,026,000, which is less than the incremental adjustments to annualize positions, fill vacancies, and bring staffers back from Aliso Canyon duty (which totaled $304,000).[38] Non-labor expenses were higher than forecast, but there appears to be a cyclical nature to those expenses.[39]

TURN recommends using 2017 as a base year for labor but recommends providing half of the increment from 2017 recorded to 2019 forecast to recognize that SoCal may add some positions, particularly when 2017 still contains vacancies.

TURN recommends a six-year average of non-labor expenditures ($375,000), which is higher than SoCal's figure, to reflect the cyclicality of these costs, which fluctuated between $130,000 and $657,000 over the six-year period. We then remove the small $15,000 decrement projected by SoCal for 2018-2019.

[37] SCG-19-WP-R page 94.
[38] SCG-19 Workpaper pages 95-96.
[39] See SCG-19-WP-R page 93.

Table 19: Recorded and Forecast Costs in Other Office Operations and Technology (2OO006.000)

	Years		Labor	Non-Labor	Total
Recorded		2012	2,040	657	2,697
Recorded		2013	2,287	130	2,417
Recorded		2014	2,479	656	3,135
Recorded		2015	2,190	236	2,426
Recorded		2016	1,909	155	2,064
Recorded		2017	2,026	417	2,442
SoCal Forecast		2017	2,783	221	3,004
SoCal Forecast		2018	2,873	206	3,079
SoCal Forecast		2019	2,973	206	3,179
Base	2017L, 6yr NL 1/2 2017A to 2019F labor;		2,026	375	2,401
Increment	2018-19 NL		474	-15	459
TURN Forecast			2,499	360	2,859
SoCal > TURN			474	-154	320

I. Measurement Data Operations (MDO) (2OO007.000)

SoCal spent $1,314,000 in 2016 and proposes to spend $1,042,000 in 2019. There is a $113,000 increase in labor expenses, which is entirely to annualize 2016 positions that were filled for part of the year.[40] Non-labor reductions of $384,000 are based on reducing telecommunications costs for billing large non-core customers due to AMI.[41] ORA does not address this account. TURN recommends $929,000, $113,000 less than SoCal, after reversing the requested increase in labor expenses.

In 2017, labor spending actually declined by $35,000, rather than increasing to annualize positions, as SoCal had forecast. Non-labor spending was very close to 2017 forecast levels.

TURN recommends using the 2016 base year for labor without annualization, in light of the failure to increase labor expenses in this area. TURN accepts SoCal's non-labor reductions in telecommunications which appear to be borne out in 2017.

[40] SCG-19 Workpaper page 105.
[41] Id., pages 105-106.

Table 20: Recorded and Forecast Costs in Measurement Data Operations (2OO007.000)

	Years	Labor	Non-Labor	Total
Recorded	2012	998	480	1,478
Recorded	2013	938	583	1,521
Recorded	2014	894	534	1,428
Recorded	2015	858	488	1,346
Recorded	2016	812	501	1,313
Recorded	2017	777	436	1,213
SoCal Forecast	2017	925	423	1,348
SoCal Forecast	2018	925	159	1,084
SoCal Forecast	2019	925	117	1,042
Base	2016	812	501	1,313
Increment	2017-2019 NL	0	(384)	(384)
TURN Forecast		**812**	**117**	**929**
SoCal > TURN		113	0	113

J. Major Market Credit and Collections (2200-0354.000)

SoCal spent $1,608,000 in 2016 on this shared services account, which centralizes credit and collections for large customers of both SoCal and SDG&E. SoCal projects that it will spend $1,604,000 in 2019, with a slight increase in labor and a slight decline in non-labor spending.[42] The labor increase comes from annualizing a 2016 position net of FOF savings; the non-labor savings come from FOF.[43]

ORA does not oppose SoCal's request. TURN recommends $1.480,000, a reduction of $124,000.

SoCal forecast spending of $1,623,000 in 2017, but actual spending was $1,381,000, with the reduction almost entirely in labor expenses.

TURN recommends a three-year average for labor, since 2016 was the highest of the last three years with both 2015 and 2017 below it. We accept SoCal's non-labor forecast, since actual spending was only $6,000 less than the forecast.

[42] SCG-19-WP-R page 119.
[43] SCG-19-WP-R pages 119-121.

Table 21: Recorded and Forecast Costs in Major Market Credit and Collections (2250-0354.000)

	Years	Labor	Non-Labor	Total
Recorded	2012	1,278	382	1,660
Recorded	2013	1,229	318	1,547
Recorded	2014	1,126	323	1,449
Recorded	2015	1,193	324	1,517
Recorded	2016	1,285	323	1,608
Recorded	2017	1,072	310	1,381
SoCal Forecast	2017	1,307	316	1,623
SoCal Forecast	2018	1,307	297	1,604
SoCal Forecast	2019	1,307	297	1,604
Base	2015-17 L, SoCal NL	1,183	323	1,506
Increment	2017-2019 NL	$ -	$ (26)	$ (26)
TURN Forecast		**1,183**	**297**	**1,480**
SoCal > TURN		124	0	124

IV. Customer Service - Field (SDG&E-17)

A. Overall Spending Pattern

SDG&E forecasts 2019 O&M costs for Customer Service - Field of $23,733,000, which is an increase of $2.294 million over 2016 recorded adjusted costs of $21,439,000. This net increase reflects forecasted increases in Field – Operations and Field - Supervision, and decreases in Field - Dispatch and Field - Support.[44] SDG&E forecasts 2019 O&M costs for Customer Service - Field of $23,733,000, which is an increase of $2.294 million over 2016 recorded adjusted costs of $21,439,000. This net increase reflects forecasted increases in Field – Operations and Field - Supervision, and decreases in Field - Dispatch and Field - Support.[45] SDG&E's Field Service Operations had significant reductions in spending from 2016 to 2017, with total spending falling by 4.3% from 2016 recorded levels and by 8.1% from SDG&E's 2017 forecast. These 2017 spending reductions cause me not to support the full increases to 2019 that SDG&E has proposed. If SDG&E is 8% below the 2017 forecast, we cannot simply assume that its 2019 forecast is reasonable.

[44] SDG&E-17-R page GRM-iii; SDGE-17-WP-R page 3.
[45] SDG&E-17-R page GRM-iii; SDGE-17-WP-R page 3.

Table 22 summarizes the pattern of SDG&E's spending for customer service field operations, comparing 2017 recorded spending with 2016 recorded and 2017 forecast.

Table 22: 2016 Recorded, 2017 Recorded and 2017 Forecast Spending: SDG&E Customer Field Service (2016 $'000)

		2016 Recorded			2017 Recorded			2017 Forecast			2017 Actual vs. 2016 Actual		2017 Actual vs. 2017 Forecast	
		Labor	Non-Labor	Total	Labor	Non-Labor	Total	Labor	Non-Labor	Total	Total	%	Total	%
1FC001.000	CSF - Operations	12,566	646	13,212	12,698	628	13,327	13,720	818	14,538	115	0.9%	(1,211)	-8.3%
1FC002.000	CSF - Supervision	1,186	51	1,237	966	45	1,011	1,329	51	1,380	(226)	-18.2%	(369)	-26.7%
1FC003.000	CSF - Dispatch	4,261	74	4,335	3,766	45	3,811	3,816	90	3,906	(524)	-12.1%	(95)	-2.4%
1FC004.000	CSF - Support	2,244	411	2,655	1,960	412	2,372	2,165	345	2,510	(283)	-10.6%	(138)	-5.5%
		20,257	1,182	21,439	19,391	1,131	20,522	21,030	1,304	22,334	(917)	-4.3%	(1,812)	-8.1%

In Field Service Operations, we provide a detailed analysis related to SDG&E's forecast, using a different approach from ORA. TURN's analysis shows that ORA's position is reasonable, except for one further adjustment proposed by TURN. In two other areas, we make adjustments to the base year forecast to reflect that SDG&E simply did not need the funds it projected that it needed in 2017. In Field Services Operations, our adjustment encompasses ORA's adjustment and is larger. In Field Services Supervision, our adjustment is less than ORA's and should be considered an alternative to ORA's recommendation. TURN proposes an adjustment in Field Services Support, where ORA made no changes. TURN accepts SDG&E's forecast for Field Services Dispatch.

Table 23 below summarizes TURN's Forecast for 2019 as compared to SDG&E's Forecast.

Table 23: 2016 Recorded Costs and SDG&E and TURN 2019 Forecasts for Customer Field Services

	2016 Recorded	2019 SDG&E Forecast	2019 TURN Forecast	SDG&E> TURN	SDG&E 2019 > 2016 Rec	TURN 2019 > 2016 Rec
All Customer Services Field						
Labor	20,257	22,236	20,887	1,349	9.8%	3.1%
Non-Labor	1,182	1,497	1,435	62	26.6%	21.4%
Total	21,439	23,733	22,322	1,411	10.7%	4.1%
1FC001.000 Customer Services Field - Operations						
Labor	12,566	14,889	13,822	1,067	18.5%	10.0%
Non-Labor	646	999	942	57	54.6%	45.8%
Total	13,212	15,888	14,764	1,124	20.3%	11.7%
1FC002.000 Customer Services Field - Supervision						
Labor	1,186	1,366	1,186	180	15.2%	0.0%
Non-Labor	51	56	51	5	9.8%	0.0%
Total	1,237	1,422	1,237	185	15.0%	0.0%
1FC003.000 Customer Services Field - Dispatch						
Labor	4,261	3,816	3,816	-	-10.4%	-10.4%
Non-Labor	74	90	90	-	21.6%	21.6%
Total	4,335	3,906	3,906	-	-9.9%	-9.9%
1FC004.000 Customer Services Field - Support						
Labor	2,244	2,165	2,063	102	-3.5%	-8.1%
Non-Labor	411	352	352	-	-14.4%	-14.4%
Total	2,655	2,517	2,415	102	-5.2%	-9.1%

B. Field Service Operations (1FC000.000)

SDG&E spent $13,212,000 in 2016 and forecasts spending $15,888,000 in 2019. ORA uses a 2016 base year instead of an average of 2014-2016 as the base for most programs and forecasts $14,911,000. TURN largely agrees with ORA's forecast and offers additional information here to support it. For reasons discussed below, TURN also removes SDG&E's incremental drive time from ORA's forecast so that TURN's forecast is $14,764,000.

SDG&E's 2017 forecast was $14,538,000, largely due to its forecast of an increasing number of work orders.

SDG&E's actual spending in 2017 was $13,327,000, a reduction of 8.3% from its 2017 forecast, and only 0.87% above recorded 2016 levels. SDG&E's FTE actually declined slightly.[46]

For most types of orders, SDG&E uses an average of 2014-2016 orders and escalates them with customer growth. However, SDG&E's approach is unreasonable, because, as ORA pointed out, there is a downtrend in field orders – even after the completion of AMI. The total number of orders in 2014 (408,954) was 46% higher than the number of orders in 2016 (279,961).[47]

The 2017 actual expenses demonstrate that SDG&E's forecast is unreasonable. Orders actually fell in 2017 (275,523 excluding smart meter opt out reads covered by a balancing account)[48] from base year 2016 levels (279.961).[49] The 2017 results demonstrate the reasonableness of ORA's rejection of the three-year average of orders.

The only difference between TURN and ORA is that TURN would specifically reject SDG&E's increase in drive time as speculative and poorly forecast in the last GRC cycle. In Base Year 2013, drive time was 13.1 minutes. SDG&E forecast drive time in 2016 of 13.5 minutes (a 1% increase per year, just like this case).[50] Actual drive time in 2016 was 13.0 minutes – approximately flat.[51] Now SDG&E again forecasts an increase in drive time to 13.4 minutes in 2019. In light of SDG&E's having forecast non-existent increases in drive time as part of the

[46] TURN-SEU DR 64-02.
[47] ORA-16, Table 16-7, p. 9.
[48] TURN-SEU DR 64-01c.
[49] TURN-SEU DR 64-01b.
[50] Both of these figures are from SDG&E-13 WP page 16 in the 2016 TY GRC. (Attachment 2)
[51] SDG&E-17 Workpaper page 22.

last rate case cycle, TURN recommends that no drive time adjustment be made in this rate case cycle. TURN leaves drive time at 13.0 minutes in 2019.

TURN therefore recommends a forecast of $14,764,000, which removes incremental drive time from ORA's forecast, as shown below.

Table 24: Recorded and Forecast Costs in Customer Field Services Operations (1FC001.000)

	Years	Labor	Non-Labor	Total	FTE
recorded	2012	16,286	935	17,221	211.9
recorded	2013	15,375	1,185	16,559	195.8
recorded	2014	13,293	711	14,004	163.3
recorded	2015	13,388	748	14,136	152.8
recorded	2016	12,566	646	13,212	146.4
recorded	2017	12,698	628	13,327	*147.9*
SDG&E forecast	2017	13,720	818	14,538	158.0
SDG&E forecast	2018	14,109	850	14,959	162.1
SDG&E forecast	2019	14,889	999	15,888	172.6
Base (ORA)	2016	12,566	646	13,212	
Drive Time (reject SDG&E)				-	
New programs (ORA/SDG&E)		1,383	274	1,657	
Fueling Our Future savings (ORA/SDG&E)		(127)	22	(105)	
Increment	2017-2019	1,256	296	1,552	
TURN Forecast		**13,822**	**942**	**14,764**	*160.2*
SDG&E> TURN		1,067	57	1,124	*12.4*
ORA>TURN		140	7	147	*1.6*

C. Field Service Supervision (1FC002.000)

SDG&E spent $1,237,000 in 2016 and forecasts an increase to $1,422,000 in 2019, based on 12 Field Service Operations employees per supervisor, times its number of Operations employees. It then subtracts $93,000 from Fueling our Future Savings.[52] ORA forecasts a reduction to $1,144,000 based on low levels of staffing and spending in 2017.

2017 spending was extremely low ($1,011,000), which is 18% below 2016 spending and 27% below SDG&E's 2017 forecast. By comparison, actual Operations labor expenses were 1%

[52] SDG&E-17-WP-R page 57.

above 2016 operations expenses and 7.5% below SDG&E's 2017 forecast. The ratio of supervisors to employees fell precipitously as there were only 10.4 FTE of supervision in 2017.[53]

TURN's recommendation is to hold costs constant at 2016 levels. TURN reduces the number of operations employees from 172 to 160 above. We calculate that 13.35 FTE of supervision would be needed for 160 operations employees to maintain the 12:1 ratio. We subtract $82,000 or 0.8 FTE in FOF savings (the $93,000 proposed by SDG&E pro-rated for the lower required headcount that TURN identifies). This would amount to an increase of only 0.15 employees or $15,000 over 2016 levels – which is immaterial, given the large reduction in expense experienced from 2016 to 2017. Table 25shows TURN's recommendation, which is an alternative to ORA's..

Table 25: Recorded and Forecast Costs in Customer Field Services Supervision (1FC002.000)

	Years	Labor	Non-Labor	Total
recorded	2012	1,676	89	1,764
recorded	2013	1,698	50	1,749
recorded	2014	1,350	38	1,388
recorded	2015	1,213	59	1,272
recorded	2016	1,186	51	1,237
recorded	2017	966	45	1,011
SDG&E forecast	2017	1,329	51	1,380
SDG&E forecast	2018	1,370	52	1,422
SDG&E forecast	2019	1,366	56	1,422
Base	2016	1,186	51	1,237
Increment	2017-2019	-	-	-
TURN Forecast		**1,186**	**51**	**1,237**
SDG&E> TURN		180	5	185
ORA>TURN		(93)	-	(93)

D. Field Service Dispatch (1FC003.000)

SDG&E spent $4,335,000 in 2016 and forecasts $3,906,000 in 2019 based on a three-year average minus $146,000 of Fueling our Future savings. [54] ORA did not take issue with this forecast.

[53] DR ORA-SDG&E-145 Q1.
[54] SDG&E-17-WP-R page 66.

Actual spending in 2017 was 2.5% below SDG&E's forecast at $3,811,000. We do not take exception to SDG&E's forecast of this account.

E. Field Service Support (1FC004.000)

SDG&E spent $2,655,000 in 2016 and forecasts spending $2,517,000 in 2019.[55] For labor, SDG&E used a three-year average which reduced 2019 spending, while identifying specific savings in non-labor costs. ORA did not modify SDG&E's forecast.

SDG&E's 2017 forecast was $2,548,000 due to the three-year average, offset by some savings in non-labor expenses. SDG&E's actual spending in 2017 was $2,372,000. Labor spending of $1,960,000 was 13% below 2016 spending ($2,244,000) and 9.5% less than the three-year average that SDG&E used for forecasting ($2,165,000). FTE were forecast to be 27 but fell to 24.4.[56]. Labor spending was the lowest experienced in the last six years. Non-labor spending was slightly above the forecast for 2017, as well as 2018 and 2019.

TURN recommends taking the lower level of 2017 labor spending into account by using a weighted four-year average. We weight SDG&E's three-year average (which is its 2017 forecast) by one-half and weight actual 2017 spending by one-half. TURN's 2019 forecast is thus $2,063,000 for labor. We note that TURN's labor forecast for Field Services Support is 14.9% of TURN's forecast for Field Service Operations Labor, which is equal to the six-year average percentage of Field Service Support Labor to Field Service Operations Labor from 2012-2017. We accept SDG&E's non-labor forecast for 2019, because it is based on specific changes to a software contract.[57] TURN's forecast is given in Table 26.

[55] SDG&E-17-WP-R page 75.
[56] TURN-SEU DR 64-02.
[57] SDG&E-17-WP-R pages 76-77.

Table 26: Recorded and Forecast Costs in Customer Field Services Support (1FC004.000)

	Years		Labor	Non-Labor	Total
Recorded		2012	2,293	510	2,803
Recorded		2013	2,369	408	2,777
Recorded		2014	2,010	385	2,395
Recorded		2015	2,241	373	2,613
Recorded		2016	2,244	411	2,655
Recorded		2017	1,960	412	2,372
SDG&E Forecast		2017	2,165	383	2,548
SDG&E Forecast		2018	2,165	345	2,510
SDG&E Forecast		2019	2,165	352	2,517
Base	weighted 4 yr avg., 2017A 50% 3-yr 50%		2,063	352	2,415
Increment	2018-2019		-		-
TURN Forecast			**2,063**	**352**	**2,415**
SDG&E> TURN			102	0	102

V. Customer Service Office Operations (SDG&E-18)

A. Overall Spending Pattern

SDG&E forecasts 2019 O&M costs for Customer Service – Office Operations of $44,319,000, which is an increase of $7.501 million over 2016 recorded adjusted costs of $36,181,000. SDG&E also forecasts annual increases in Office Operations spending from 2016 through 2019.[58]

However, SDG&E's Customer Service Office Operations had significant reductions in spending from 2016 to 2017, with total spending falling by 3.6% from 2016 recorded levels and by 9.0% from SDG&E's 2017 forecast. These 2017 spending reductions cause me not to support the full increases to 2019 that SDG&E has proposed. If SDG&E is 9% below the 2017 forecast, we cannot simply assume that the 2019 forecast is reasonable.

Because of our review of 2017 data, our focus was different than ORA's focus. ORA focused largely on SDG&E's incremental requests and did not examine the reasonableness of the base year.

[58] SDG&E-18 page JDS-v; SDG&E-18-WP page 3.

Table 27 summarizes the pattern of SDG&E's 2017 recorded spending for Customer Service Office Operations as compared to 2016 recorded and SDG&E's 2017 forecast.

Table 27: 2016 Recorded, 2017 Recorded and 2017 Forecast Spending: SDG&E Customer Service Office Operations

		2016 Recorded				2017 Recorded				2017 Forecast				2017 Actual vs. 2016 Actual		2017 Actual vs. 2017 Forecast	
		Labor	Non-Labor	NSE	Total	Labor	Non-Labor	NSE	Total	Labor	Non-Labor	NSE	Total	Total	%	Total	%
1OO001.000	Advanced Metering Operations	7,451	706		8,157	6,594	594	-	7,188	7,622	747		8,369	(969)	-11.9%	(1,181)	-14.1%
1OO002 000	Billing	3,580	683		4,263	3,199	2,549	-	5,747	3,575	2,523		6,098	1,484	34.8%	(351)	-5.8%
1OO003.000	Credit and Collections	2,083	544		2,627	1,714	523	-	2,237	1,992	682		2,674	(390)	-14.8%	(437)	-16.3%
1OO004.000	Remittance Processing		785		785	0	816		816		772		772	31	4.0%	44	5.7%
1OO004.001	Postage			4,160	4,160	-	-	3,936	3,936			4,045	4,045	(224)	-5.4%	(109)	-2.7%
1OO005.000	Branch Offices	1,460	519		1,979	1,393	418		1,811	1,504	474		1,978	(168)	-8.5%	(167)	-8.5%
1OO006 000	Customer Contact Center Operations	8,896	41		8,937	8,386	62	-	8,448	9,089	(14)		9,075	(489)	-5.5%	(627)	-6.9%
1OO007.000	Customer Contact Center Support	1,512	1,278		2,790	1,312	1,200	-	2,511	1,479	1,230		2,709	(279)	-10.0%	(198)	-7.3%
1OO008.000	Customer Operations Support & Projects	3,005	114		3,119	2,501	306	-	2,807	3,148	135		3,283	(312)	-10.0%	(476)	-14.5%
		27,987	4,670	4,160	36,817	25,097	6,468	3,936	35,501	28,409	6,549	4,045	39,003	(1,316)	-3.6%	(3,502)	-9.0%

In certain areas, such as the Call Center we provide a detailed analysis related to SDG&E's forecast. In other areas, particularly smaller areas where ORA has made no adjustments, we make adjustments to the base year forecast (often by using two-year or three-year averages or reducing costs by a percentage from the SDG&E 2017 forecast) to reflect that SDG&E simply did not need the funds it projected that it needed in 2017. Except for the Advanced Meter Operations and the Billing accounts, our adjustments are different than ORA's and do not overlap with ORA's..

Table 28 compares SDG&E's request for a 20.4% increase in Customer Service Office Operations (from $36,817,000 to $44,318,000) to TURN's significant but more modest increase of 9.1% to $40,183,000. TURN reduces SDG&E's forecast by $4,135,000.

Table 28: 2016 Recorded Costs and SDG&E and TURN 2019 Forecasts for Customer Office Services

		2016 Recorded	2019 SDG&E	2019 TURN	SDG&E> TURN	TURN % Change	SDG&E 2019 > 2016 Rec	TURN 2019 > 2016 Rec
All Customer Services Office								
Labor		27,987	30,232	28,147	2,085	-6.90%	8.0%	0.6%
Non-Labor		4,670	10,230	8,180	2,050	-20.04%	119.1%	75.2%
NSE		4,160	3,856	3,856	-	0.00%	-7.3%	-7.3%
Total		36,817	44,318	40,183	4,135	-9.33%	20.4%	9.1%
1OO001.000	**Advanced Metering Operations**							
Labor		7,451	8,301	7,580	721	-8.69%	11.4%	1.7%
Non-Labor		706	1,733	1,235	498	-28.76%	145.5%	74.9%
Total		8,157	10,034	8,815	1,219	-12.15%	23.0%	8.1%
1OO002.000	**Billing**							
Labor		3,580	3,799	3,370	429	-11.30%	6.1%	-5.9%
Non-Labor		683	4,224	2,887	1,337	-31.66%	518.4%	322.7%
Total		4,263	8,023	6,256	1,767	-22.02%	88.2%	46.8%
1OO003.000	**Credit and Collections**							
Labor		2,083	2,234	2,102	132	-5.89%	7.2%	0.9%
Non-Labor		544	839	674	165	-19.71%	54.2%	23.8%
Total		2,627	3,073	2,776	297	-9.67%	17.0%	5.7%
1OO004.000	**Remittance Processing**							
Labor		0	0	0				
Non-Labor		785	745	738	7	-0.94%	-5.1%	-6.0%
Total		785	745	738	7	-0.94%	-5.1%	-6.0%
1OO004.001	**Postage**							
Labor		0	0	0				
Non-Labor		0	0	0				
NSE		4,160	3,856	3,856	0	0.00%	-7.3%	-7.3%
Total		4,160	3,856	3,856	0	0.00%	-7.3%	-7.3%
1OO005.000	**Branch Offices**							
Labor		1,460	1,293	1,182	111	-8.60%	-11.4%	-19.1%
Non-Labor		519	916	860	56	-6.11%	76.5%	65.7%
Total		1,979	2,209	2,042	167	-7.57%	11.6%	3.2%
1OO006.000	**Call Center Operations**							
Labor		8,896	9,804	9,610	194	-1.98%	10.2%	8.0%
Non-Labor		41	292	204	88	-30.17%	612.2%	397.3%
Total		8,937	10,096	9,814	282	-2.79%	13.0%	9.8%
1OO007.000	**Call Center Support**							
Labor		1,512	1,366	1,299	67	-4.91%	-9.7%	-14.1%
Non-Labor		1,278	1,313	1,323	(10)	0.75%	2.7%	3.5%
Total		2,790	2,679	2,622	57	-2.14%	-4.0%	-6.0%
1OO008.000	**Customer Operations Support & Projects**							
Labor		3,005	3,435	3,004	431	-12.55%	14.3%	0.0%
Non-Labor		114	168	260	(92)	54.86%	47.4%	128.2%
Total		3,119	3,603	3,264	339	-9.40%	15.5%	4.7%

B. Advanced Meter Operations (1OO001.000)

SDG&E spent $8,157,000 in 2016 and forecast spending $10,034,000 in 2019.[59] ORA proposes a significant reduction staffing for residential TOU default operations and proposes a spending level of $9,198,000. TURN's forecast overlaps with ORA's disallowances ($801,000 is common to both forecasts) and is $8,536,000. The difference between TURN and ORA is largely the base year difference discussed below.

SDG&E's 2017 forecast was $8,369,000, reflecting the annualization of annualizing partial year costs of apprentices and assuming that the number of work orders would increase, net of some retirements in the group and FOF savings. SDG&E forecasts that the costs will rise in 2018-2019, largely to absorb more work orders and the costs of residential TOU default.

SDG&E's actual spending in 2017 was $7,188,000, a 12% reduction from recorded 2016 levels. SDG&E indicated that it brought staff back from 2016, continued its apprentice program at full funding levels, and still spent 12% less.

SDG&E explained the situation as follows;

> There were several factors that contributed to AMO's 2017 labor spend being lower than forecast. The primary reason was the result of delays in backfilling labor vacancies in addition to the need for AMO resources to support capital and non-GRC projects. The work performed in AMO is highly specialized and acquiring new resources with relevant experience can be difficult and time consuming due to the extensive training process.[60]

We note that the need to add a $90,000 to add an FTE in 2017 to meet new orders did not occur, as the number of orders did not increase by more than the capability of apprentices' labor that SDG&E assigned to the orders.[61]

TURN proposes to calculate a base year by reducing SDG&E's 2017 forecast by 5% in light of the 14% difference between actual and SDG&E forecast spending. The 5% reduction is about 37% of the difference between projected and actual 2017 spending. We add SDG&E's incremental spending from 2017-2019, minus ORA's adjustment to the costs related to the

[59] SDG&E-18-WP page 6.
[60] TURN DR 66-01c.
[61] TURN DR 66-01b, showed 35,478 orders in 2017, 2513 more orders than recorded in 2016 (32,965). SDG&E had forecast 37,010 orders – an increase of 4,035 orders. SDG&E projects that apprentices were supposed to be able to take care of 3000 orders in 2017. SDG&E-18, Workpaper page 20.

default residential TOU program. This forecast recognizes that SDG&E is likely to spend more money as it can hire more staff, including a significant part of the difference between actual and forecast 2017 spending levels, but that staffing up is more complex than the way in which SDG&E forecast that it could hire all the staff it needs at once.

Table 29: Recorded and Forecast Costs in Advanced Meter Operations (1OO001.000)

	Years	Labor	Non-Labor	Total
recorded	2012	7,824	857	8,682
recorded	2013	8,091	614	8,705
recorded	2014	8,023	545	8,568
recorded	2015	7,464	635	8,099
recorded	2016	7,451	706	8,157
recorded	2017	6,594	594	7,188
SDG&E forecast	2017	7,622	747	8,369
SDG&E forecast	2018	7,579	882	8,461
SDG&E forecast	2019	8,301	1,733	10,034
	5% less than			
Base	SDG&E 2017	7,241	710	7,951
SDG&E increment	2018-2019	679	986	1,665
ORA Adjustment to Res TOU		-340	-461	-801
TURN Forecast		**7,580**	**1,235**	**8,815**
SDG&E> TURN		721	498	1,219

C. Billing (1OO002.000)

SDG&E spent $4,263,000 in 2016 and forecast spending $8,023,000 in 2019.[62] ORA proposes a significant reduction in contract staff, resulting in a forecast of $5,841,000.[63] TURN's forecast is $6,231,000 and partially overlaps with ORA's disallowances ($1,361,000 is common to both forecasts, while we did not adopt about $800,000 of what ORA disallowed).

SDG&E's 2017 forecast was $6,098,000, with nearly all of that change an increase in contractor spending to eliminate a backlog in dealing with the billing of interval meters. SDG&E forecasts that this expenditure on contractors will continue in 2018 and 2019 at reduced levels. SDG&E forecasts further increases in Billing costs due to the transition of residential customers to default

[62] SDG&E-18-WP page 23.
[63] ORA-16, p. 21.

time of use rates and to add a staff member (increasing staffing by 25%) because the number of rate entries is expected to increase by 10%.[64]

TURN's review of 2017 spending suggests that labor spending was 11% below that forecast by SDG&E, while non-labor spending was almost exactly what SDG&E forecast. This point suggests that contractors were hired to reduce the backlog, as the recorded figures are close to the forecast (though how many will be needed for ongoing work in 2019 is not clear from SDG&E's documentation, and ORA raises a good question as to how many staff will be needed for non-interval work).

As a result of seeing the contract funds being expended in 2017, TURN does not contest the bulk of the $1,233,000 in extra contractor work on interval meters (other than residential growth) in 2019. We are disappointed in the conclusory information provided by SDG&E with no numerical support – indeed ORA calls SDG&E's forecast arbitrary[65] -- and reduce the figure as a result by about 20% to $1,000,000. This adjustment is appropriate because SDG&E has not demonstrated the reasonableness of the full extent of its projected increase over 2016 recorded costs. .

We do not oppose ORA's analysis of the staff required to support additional residential default TOU program if it goes forward in 2019, [66] although if the program is not started until later, the funding should be removed. The timing of this program will be known by the update hearings. [67]

TURN also contests one small aspect of the incremental forecast not identified by ORA – the addition of 33% more staff (an increase from 3.0 to 4.0 FTE) to do a job that SDG&E projects will be 10% larger (a 10% Growth in rate entries).[68] TURN adds 0.3 FTE, not 1 FTE for this activity, which is a reduction of $64,000 to SDG&E's forecast, because the Commission should not adopt a forecast that assumes productivity will backslide.

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[64] Id., page 34.
[65] ORA-16, p. 23.
[66] ORA-16, pp. 25-27.
[67] On April 20, 2018, the Commission issued the Proposed Decision of ALJ Park in A.17-12-011 et al., entitled "Phase I Decision Addressing Transition to Residential Default Time-of-Use Rates," which would authorize SDG&E "to begin transitioning eligible residential customers to default time-of-use rates beginning March 2019," subject to the Commission's "approval of a default time-of-use rate and implementation plan." Proposed Decision, Ordering Paragraph 1.
[68] SDG&E-18-WP page 34.

In sum:

TURN uses a base year of 2017 for both labor and non-labor. We use that rather than an average that we have used in many other cases because of ORA's analysis of reductions in staff for non-interval billing as interval billing is added. We disallow $233,000 instead of approximately $1 million disallowed by ORA for backlog reduction[69]; we include ORA's reduction for Residential TOU Default contract labor[70], and we remove 0.7 FTE of a new position requested by SDG&E. Our recommendation is shown in Table 30.

Table 30: Recorded and Forecast Costs in Billing (1OO002.000)

Years		Labor	Non-Labor	Total
recorded	2012	3,822	300	4,121
recorded	2013	3,990	295	4,285
recorded	2014	3,561	365	3,926
recorded	2015	3,278	609	3,887
recorded	2016	3,580	683	4,263
recorded	2017	3,199	2,549	5,747
SDG&E forecast	2017	3,575	2,523	6,098
SDG&E forecast	2018	3,766	3,421	7,187
SDG&E forecast	2019	***3,799***	***4,224***	***8,023***
Base 2017 L and NL		3,199	2,549	5,747
SDG&E increment		224	1,701	1,925
TURN adjustment backlog reduction			-233	-233
ORA adjustment for Res TOU			-1,128	-1,128
Less 0.6 FTE rate entries		-53	-2	-55
TURN Forecast		**3,370**	**2,887**	**6,256**
SDG&E> TURN		429	1,337	1,767

[69] ORA-16, p. 25 (recommending an increase of $222,087 to hire two new FTEs instead of SDG&E's $1.277 million to hire 11.5 FTEs).
[70] ORA-16, p. 27 (recommending 50% of SDG&E's request for $2.255 million for 15.5 FTEs).

D. Credit and Collections (1OO003.000)

SDG&E spent $2,627,000 in 2016 and forecast spending $3,073,000 in 2019. [71] ORA did not contest SDG&E's forecast. TURN's forecast is $2,776,000 which is $297,000 or 10% below SDG&E's request.

SDG&E's interim forecast was 2,674,000 in 2017, with higher non-labor costs and increases in costs from FOF (that create decreases elsewhere) offsetting a decrease in labor expenses due to retirement.[72] identical to 2016. Between 2017 and 2019, SDG&E forecast adding staff and contractors, plus additional commissions to collection agencies and an allowance for customer growth.[73] SDG&E's incremental costs sum to $399,000. SDG&E actually spent $2,237,000 in 2017, with lower labor and non-labor costs than in 2016.

TURN takes into account the lower spending levels in 2017 by using a two-year average of 2016-17 spending for both labor and non-labor expenses. TURN also rejects the customer growth increment from 2018-2019, while adding the specific incremental staffing, FOF programs, and increased commissions proposed by SDG&E. We reject the customer growth adjustment because costs demonstrably did not grow due to the increase in customers over the historical period and in 2017, and the averaging of 2016-2017 appears to cover this growth allowance generously relative to a 2017 base. (Table 31)

[71] SDG&E-18-WP page 36.
[72] SDG&E-18 Workpaper page 37.
[73] Id.

Table 31: Recorded and Forecast Costs in Credit and Collections (1OO003.000)

	Years	Labor	Non-Labor	Total
recorded	2012	2,216	451	2,667
recorded	2013	2,351	487	2,837
recorded	2014	2,269	438	2,707
recorded	2015	2,002	443	2,445
recorded	2016	2,083	544	2,627
recorded	2017	1,714	523	2,237
SDG&E forecast	2017	1,992	682	2,674
SDG&E forecast	2018	2,010	794	2,804
SDG&E forecast	***2019***	***2,234***	***839***	***3,073***
Base	2016-2017	1,898	534	2,432
SDG&E increment	2018-2019	242	157	399
Less customer growth	2018-2019	-38	-17	-55
TURN Forecast		**2,102**	**674**	**2,776**
SDG&E> TURN		132	165	297

E. Remittance Processing (1OO004.000)

SDG&E spent $785,000 in 2016 and forecast spending $745,000 in 2019. [74] ORA did not contest SDG&E's forecast. TURN's forecast is $738,000 which is $7,000 (1%) below SDG&E's request, due to an accounting adjustment.

TURN makes an accounting adjustment to remove $7,000 from TY 2019 – a small number that reflects a large principle of California ratemaking, where costs are stated in constant dollars and inflation is then added afterward. SDG&E is including a contractual increase of 4% annually for software.[75] This is double escalation. SDG&E already gets a non-labor escalation factor for this account, which is supposed to cover all types of inflation for ordinary items. Some items rise more slowly than the inflation factor, some more rapidly. SDG&E is asking to collect twice for the same inflation – once in ordinary inflation and a second time this special 4% adder on top of ordinary inflation. The Commission should remove the adder for extra inflation on this small item.

[74] SDG&E-18-WP page 47.
[75] SDG&E-18, Workpaper 54. TURN-SEU DR 66-05.

Table 32: Recorded and Forecast Costs in Remittance Processing (1OO004.000)

		Labor	Non-Labor	Total
Recorded	2016	0	785	785
SDG&E Forecast	2019	0	745	745
Double-Escalation Adjustment		0	-7	-7
TURN Forecast		**0**	**738**	**738**
SDG&E>TURN		0	7	7

F. Postage (1OO004.001)

TURN has reviewed SDG&E's forecast for postage and makes no adjustments.

G. Branch Offices (1OO005.000)

SDG&E spent $1,979,000 in 2016 and forecast spending $2,209,000 in 2019.[76] ORA did not contest SDG&E's forecast. As discussed below, TURN's forecast is $2,042,000 which is $182,000 below SDG&E's request.

SDG&E's interim forecast was $1,978,000 in 2017, almost identical to 2016. Between 2017 and 2019, SDG&E forecast declines in labor and increases in non-labor spending (to replace workers with kiosks) summing to a negative $49,000 and $280,000 in costs to pursue additional compliance with the Americans with Disabilities Act (ADA) starting in the 2019 test year.[77]

As shown below, actual spending in 2017 was $167,000 below the forecast, with reduced spending in both the labor and non-labor areas.

The 2017 spending was expected to be higher for labor due to a salary adjustment, but labor spending was instead well below forecast. Non-labor spending was expected to decline from 2016 to 2017, but the actual decline was larger.

TURN recommends that spending for this account be based on the 2017 baseline (which for labor is within 0.3% of a three year average of 2015-2017 and which should reflect the annualization of the salary adjustment).

[76] SDG&E-18-WP page 66.
[77] SDG&E-18, Workpaper 68.

TURN also notes that SDG&E has not explained why it is reasonable to expect that all of the incremental ADA activities it lists in its workpapers will be recurring annually, aside from the addition of an ADA program manager.[78] However, TURN understands that the Center for Accessible Technology (CforAT), SoCal, and SDG&E will serve joint testimony on May 14 that addresses ADA compliance activities and expenditures during the 2019 GRC cycle. TURN will examine SDG&E's proposed forecasts of incremental ADA compliance costs in Branch Offices in light of that testimony once we have seen it. TURN may propose additional adjustments to Branch Offices as a result of that review.

In the meantime, TURN starts with a 2017 baseline and adds SDG&E's incremental costs in our forecast.

Table 33: Recorded and Forecast Costs in Branch Offices (1OO005.000)

	Years	Labor	Non-Labor	Total
recorded	2012	1,507	491	1,998
recorded	2013	1,607	523	2,131
recorded	2014	1,382	653	2,035
recorded	2015	1,315	560	1,875
recorded	2016	1,460	519	1,979
recorded	2017	1,393	418.0472	1,811
SDG&E fcst	2017	1,504	474	1,978
SDG&E fcst	2018	1,414	552	1,966
SDG&E forecast	2019	***1,293***	***916***	***2,209***
Base	2017	1,393	418	1,811
SDG&E Increment	2018-19	-211	442	231
TURN Forecast	2019	**1,182**	**860**	**2,042**
SDG&E> TURN		***111***	***56***	***167***

H. Customer Contact Center Operations (1OO006.000)

SDG&E spent $8,937,000 in 2016 and forecast spending $10,097,000 in 2019. ORA did not contest SDG&E's forecast. TURN's forecast is $9,814,000 which is $283,000 or 2.8% below SDG&E's request.

[78] SDG&E-18-WP page 68.

SDG&E's interim forecast was $9,075,000 in 2017 based on its forecasting model, a $350,000 increase to annualize a salary adjustment, plus some small changes call volume and in FOF.[79] Between 2017 and 2019, SDG&E forecast adding staff to meet customer growth, to answer calls about default TOU, and to implement a safety-related program to collect customers'e-mail addresses, with some FOF costs netted out.[80] SDG&E's incremental costs from 2017-19 sum to $1,022,000.

SoCal's actual spending in 2017 was $8,448,000, a reduction of $629,000 (6.9%) from its forecast. We did not find as clear a set of causes for the difference for SDG&E as we did for SoCal.

We first noticed that the level of supervision fell by about 1.4 FTE while the number of Energy Service Specialists (ESS – what SoCalGas calls customer service representatives or CSRs) was nearly constant compared to 2016. The number of employees per supervisor rose to its highest level in the last six years.[81] We do not believe that outcome is sustainable in the long term, so we consider that 1.4 FTE of supervision would be added to obtain 10.0 FTE of supervision for the 2016-2017 number of employees. That accounts for $130,000 of the difference. The remaining difference to evaluate is $497,000 (5.5%).

We examined similar factors to SoCal Gas – the total number of calls and number of calls taken by CSRs and by the IVR, the average handle time, and the number of calls per FTE staff.

We found that the total number of calls and the calls answered by CSRs are increasing for SDG&E, unlike SoCal. IVR use has been flat since 2016.[82] (Table 34)

[79] SDG&E-18, Workpaper page 37.
[80] Id.
[81] TURN-SEU DR 66-07k.
[82] Data taken from TURN-SEU DRs 66-07a, c, d, and e.

Table 34: SDG&E Call Center History, 2014-March, 2018

	Total Calls	Abandoned	Answered	IVR	CSR	CSR %
2014	2,610,238	105,316	2,504,922	671,349	1,833,573	73.2%
2015	2,845,914	472,746	2,373,168	785,249	1,587,919	66.9%
2016	2,773,880	463,453	2,310,427	819,676	1,490,751	64.5%
2017	2,709,229	317,220	2,392,009	837,107	1,554,902	65.0%
12 months ending March 2018	2,642,931	280,582	2,362,349	820,087	1,542,262	65.3%

SDG&E's ESS actually answered 1,554,902 calls in 2017 - about 3.5% more calls than the 1,501,950 calls that SDG&E forecast.

Next we looked at the average handle time. Average handle time rose significantly from 2012-2016. It fluctuates from month to month, but it was 363 seconds in 2016 but then came down to 350 seconds in 2017.[83] SDG&E's model uses 360 seconds as the basis of its forecast,[84] so that there is a 3.6% reduction from actual 2016 handle time or 2.8% reduction from SDG&E's modeled handle time.

A third parameter is occupancy – the percentage of time when a CSR is working when they are either taking calls, doing post-call follow-up work, or available to take calls. SDG&E's staffing model forecasts occupancy of 85%,[85] but occupancy has exceeded 85% in all recent years (Table 35).

Table 35: SDG&E EES Occupancy Rates, 2012-2017[86]

Year	Occupancy Rate %
2012	87.3%
2013	87.9%
2014	86.3%
2015	90.7%
2016	91.8%
2017	90.0%

[83] TURN-SEU DR 66-07h.
[84] SDG&E-18, Workpaper page 85.
[85] Id.
[86] TURN-SEU DR 66-07j

In sum, the number of annual calls per FTE of EES staff declined from 2012-2016 as average handle time increased, but it increased by 4.5% in 2017, as shown in Table 36.

Table 36: Annual Calls per SDG&E EES Full-Time-Equivalent

Year	ESS FTE	Calls answered by ESS	Calls per FTE
2012	147.6	2,127,497	14,417
2013	154.6	2,066,645	13,368
2014	136.8	1,833,573	13,401
2015	127.0	1,587,919	12,507
2016	142.2	1,490,751	10,481
2017	141.9	1,554,902	10,955

ESS FTE from TURN-SEU DR 66-07k
Calls answered from TURN-SEU DR 66-07d

Examining all of this information, while the situation is different from that of SoCalGas, TURN still believes that a modest reduction is appropriate for the Test Year. Costs are lower. More calls are being answered for less money and less FTE per call. Handle time is below and occupancy is above SDG&E's modeled estimates, both of which would tend to reduce the number of FTEs required.

For labor costs, TURN recommends a 2.5% reduction to the modeled cost in 2019 (about half of the difference between 2016 and 2017 spending after adding back the supervisors) before considering default TOU and other programs that increase calls or AHT. That amount is $9,392,000 (the 2016 base year plus the 2016 salary adjustment plus customer growth). Our reduction is $235,000. We then add SDG&E's incremental labor spending for default TOU and other items and for FOF labor savings ($453,000) to obtain a labor forecast of $9,610,000.

For non-labor SDG&E's results are driven by FOF and appears to produce unreasonable results in interim years (negative non-labor spending in 2017 and 2018) and an unsupported $534,000 increase from 2018 to 2019. TURN therefore reaches back in time to provide a six-year average of 2012-2017 non-labor spending ($204,000) which is considerably higher than the 2016 actual level of spending ($42,000) in order to recognize that some increase is likely, but which does not

have the undocumented characteristics of the FOF numbers. Table 37 compares TURN's forecast to historical data and SDG&E's forecast.

Table 37: Recorded and Forecast Costs in Customer Call Center Operations (1OO006.000)

	Years	Labor	Non-Labor	Total
Recorded	2012	9,175	361	9,536
Recorded	2013	9,351	389	9,740
Recorded	2014	8,424	272	8,696
Recorded	2015	7,972	98	8,070
Recorded	2016	8,896	41	8,937
Recorded	2017	8,386	62	8,448
SDG&E forecast	2017	9,089	-14	9,075
SDG&E forecast	2018	9,113	-242	8,871
SDG&E forecast	***2019***	***9,805***	***292***	***10,097***
	2.5% 2019 base reduction L,			
Base	6 yr avg NL	9,157	204	9,361
Increment	2019	453	-	453
TURN Forecast		**9,610**	**204**	**9,814**
SoCal > TURN		195	88	283

I. Customer Contact Center Support (1OO007.000)

SDG&E spent $2,790,000 in 2016 and forecasts $2,679,000 in 2019. [87] ORA did not oppose SDG&E's request. TURN recommends a $58,000 reduction to $2,622,000.

TURN examined the 2017 level of spending. In reality, spending declined more than SDG&E had forecast (to $2,511,000) in 2017 instead of $2,709,000 as SDG&E had forecast, with most of that decline in labor spending, which was 11% below SDG&E's 2017 forecast.

TURN therefore uses a 2016-2017 average baseline, which is $58,000 lower than SDG&E's 2017 forecast, and adds SDG&E's incremental costs in 2018 and 2019.

[87] SDG&E-18-WP page 90.

Table 38: Recorded and Forecast Costs in Customer Contact Center Support (1OO007.000)

	Years	Labor	Non-Labor	Total
recorded	2012	1,471	912	2,383
recorded	2013	1,503	1,023	2,526
recorded	2014	1,485	972	2,458
recorded	2015	1,541	1,050	2,590
recorded	2016	1,512	1,278	2,790
recorded	2017	1,312	1,200	2,511
SDG&E forecast	2017	1,479	1,230	2,709
SDG&E forecast	2018	1,417	1,264	2,681
SDG&E forecast	***2019***	***1,366***	***1,314***	***2,680***
Base	2016-2017	1,412	1,239	2,651
Increment	2018-2019	(113)	84	(29)
TURN Forecast		**1,299**	**1,323**	**2,622**
SDG&E> TURN		67	-9	58

J. Customer Operations Support & Projects (1OO008.000)

SDG&E spent $3,120,000 in 2016 and forecasts $3,604,000 in 2019. [88] ORA did not oppose SDG&E's request. TURN recommends a $320,000 reduction to $3,285,000.

TURN examined the 2017 level of spending. In reality, spending declined to $2,807,000 in 2017 instead of rising to $3,282,000, as SDG&E had forecast. SDG&E claimed it would add $142,000 for costs of staffers who filled vacancies and returned from disability leave.[89] But instead labor costs fell by $504,000. Meanwhile non-labor spending increased.

Between 2017 and 2019, SDG&E forecasts adding three new staffers in 2019 and $34,000 in non-labor costs above 2017 levels.[90]

TURN bases its forecast on a baseline of the three-year average of 2015 through 2017 (as total costs in 2015 and 2017 were similar and both 2015 and 2017 had less labor and more non-labor costs than 2016), plus 2018-2019 incremental spending.[91] TURN's forecast is $3,265,000, which is $340,000 below SDG&E's forecast.

[88] SDG&E-18-WP page 97.
[89] SCG-19, Workpaper page 99.
[90] Id.
[91] These figures are also close to, but slightly above four year averages of 2014-2017.

Table 39: Recorded and Forecast Costs in Customer Operations Support & Projects (1OO008.000)

		Labor	Non-Labor	Total
recorded	2012	3,790	77	3,867
recorded	2013	3,235	72	3,306
recorded	2014	2,738	32	2,770
recorded	2015	2,642	259	2,901
recorded	2016	3,005	114	3,120
recorded	2017	2,501	306	2,807
SDG&E fcst	2017	3,148	135	3,283
SDG&E fcst	2018	3,436	169	3,605
SDG&E forec	2019	3,436	169	3,605
Base	2015-2017	2,716	226	2,943
Increment	2018-2019	288	34	322
TURN Forecast		3,004	260	3,265

VI. SDG&E Electric Generation

SDG&E requests $60,841,000 for electric generation O&M, excluding the San Onofre Nuclear Generation Station (SONGS). TURN recommends a modest reduction of $1,878,000 (3.1%) to $58,963,000, assuming that the Otay Mesa plant is included in the Test Year forecast. A later section of this testimony also addresses fossil decommissioning costs, which are a component of depreciation expense.

A. Overall Spending Pattern

SDG&E's electric generation accounts showed a 5.9% reduction in recorded spending between 2016 and 2017, with the highest reductions at Desert Star and for the Cuyamaca Peak peaking unit. However, 2017 recorded spending was 17.9% below SDG&E's forecast spending for that year, which was largely based on five year averages of 2012-2016. (Table 40)

Table 40: 2016 Recorded, 2017 Recorded and 2017 Forecast Spending: SDG&E Electric Generation (2016 $'000)

		2016 Recorded				2017 Recorded				2017 Forecast				2017 Actual vs. 2016		2017 Actual vs. 2017	
		Labor	Non-Labor	NSE	Total	Labor	Non-Labor	NSE	Total	Labor	Non-Labor	NSE	Total	Total	%	Total	%
1EG003.000	Palomar	4,128	13,455	0	17,583	4,020	13,212	0	17,232	4,076	15,579	140	19,795	(351)	-2.0%	(2,563)	-12.9%
1EG006.000	Desert Star	2,741	6,078	5,600	14,419	2,537	5,317	5,201	13,056	2,713	8,094	5,600	16,407	(1,363)	-9.5%	(3,351)	-20.4%
1EG002.000	Miramar	276	1,139	0	1,415	222	1,466	0	1,688	356	2,024	0	2,380	273	19.3%	(697)	-29.1%
1EG007.000	Cuyamaca Peak	212	1,158	0	1,370	173	516	0	689	200	858	0	1,058	(681)	-49.7%	(369)	-34.9%
1EG005.000	Otay Mesa (2019 first full year)																
1EG001.000	Gen Plant Administration	340	9	0	349	224	6	0	230	340	9	0	349	(119)	-34.1%	(119)	-34.1%
1EG004.000	Electric Project Development	60	3	0	63	123	3	0	126	88	5	0	93	63	100.0%	33	35.5%
Subtotal	Subtotal	7,757	21,842	5,600	35,199	7,299	20,521	5,201	33,020	7,773	26,569	5,740	40,082	(7,179)	-6.2%	(7,062)	-17.6%
2100-3433.00	Resource Planning Director	505	241	0	746	510	292	0	802	833	261	0	1,094	56	7.5%	(292)	-26.7%
Subtotal	Subtotal Shared Services	505	241	0	746	510	292	0	802	833	261	0	1,094	56	7.5%	(292)	-26.7%
Total		8,262	22,083	5,600	35,945	7,809	20,813	5,201	33,822	8,606	26,830	5,740	41,176	(2,123)	-5.9%	(7,354)	-17.9%

Frankly, SDG&E did a sloppy job of forecasting these generation accounts with its five year averages. Various types of overhauls that occur at periodic intervals are part of the cost of running a fleet of modern gas generation plants, particularly combined cycles. In the case of Desert Star, a portion of these overhaul costs are captured in the Long-Term Service Agreement (LTSA) costs in place for that plant. But SDG&E exited its LTSA for Palomar in 2014, creating lumpiness and uncertainty in how to treat the cost of overhauls both as part of recorded costs and for the forecasts. It would have been casted costs more helpful for SDG&E to follow the practices of the other California utilities and break out the fore of these overhauls in the 2019-2021 period and average them over the period, while forecasting routine costs separately. TURN would normally place more weight on relatively recent data including 2017 data for routine cost forecasts. However, there were overhauls in the 2012-2014 time frame, no overhauls in the 2016-2017 time frame, and there will be some in the 2019-2021 time frame.[92] I therefore reluctantly use SDG&E's framework of long averages given that data apparently do not exist in this case which better and more explicitly forecast the cost of overhauls, and believe they are most useful for non-labor expenses which include maintenance overhauls.

TURN has therefore not changed SDG&E's basic approach. We made minor changes by incorporating 2017 data into the averages (creating six-year averages) for the four fossil powerplants, and we have removed a limited amount of base year data that are unrepresentative of future costs.

For three accounts not based on longer period averages (the Desert Star LTSA and two administrative accounts) we reviewed 2017 data to inform our recommendations.

ORA made no adjustments except to remove the Otay Mesa plant, requesting that its costs be incorporated in the authorized revenue requirement later, when the plant actually comes into service as an SDG&E-owned plant.[93]

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[92]Without citing specific confidential information in that document, this general point is supported by TURN-SEU DR 47-10.

[93] In addition to the recommendations set forth below, TURN also addresses issues regarding the Otay Mesa plant in the testimony of Kevin Woodruff.

Table 41 compares TURN's forecast to that of SDG&E. TURN reduces SDG&E's forecast by $1,878,000 (3.1%), assuming that Otay Mesa is included.

Table 41: 2016 Recorded Costs and SDG&E and TURN 2019 Forecasts for Electric Generation

	2016 Recorded	SDG&E 2019	TURN 2019	SDG&E>TURN	
1EG003.000	Palomar				
Labor	4,128	4,076	3,929	147	-3.60%
Non-Labor	13,455	14,334	13,987	347	-2.42%
NSE	0	146	146		
Total	17,583	18,556	18,063	493	-2.66%
1EG006.000	Desert Star				
Labor	2,741	2,713	2,687	26	-0.97%
Non-Labor	6,078	7,498	7,120	378	-5.05%
NSE	5,600	5,350	5,151	200	-3.73%
Total	14,419	15,561	14,957	604	-3.88%
1EG004.000	Miramar				
Labor	276	356	334	22	-6.14%
Non-Labor	1,139	2,024	1,931	93	-4.60%
Total	1,415	2,380	2,265	115	-4.83%
1EG007.000	Cuyamaca Peak				
Labor	212	216	187	29	-13.52%
Non-Labor	1,158	862	805	57	-6.61%
Total	1,370	1,078	992	86	-8.00%
1EG005.000	Otay Mesa				
Labor	0	0	0	0	0.00%
Non-Labor	0	22,796	22,303	493	-2.16%
Total	0	22,796	22,303	493	-2.16%
1EG001.000	Generation Administration				
Labor	340	340	250	90	-26.57%
Non-Labor	9	9	8	1	-7.41%
Total	349	349	258	91	-26.07%
1EG004.000	Electric Project Development				
Labor	60	116	116	0	0.00%
Non-Labor	3	5	5	0	0.00%
Total	63	121	121	0	0.00%
2100-3433.000	Resource Planning Director				
Labor	505	833	523	310	-37.21%
Non-Labor	241	261	292	-31	11.88%
Total	746	1,094	815	279	-25.50%
Total Electric Generation					
Labor	7,757	7,817	7,503	314	-4.02%
Non-Labor	21,842	47,528	46,159	1,369	-2.88%
NSE	5,600	5,496	5,297	200	-3.63%
Total	35,199	60,841	58,958	1,883	-3.10%

B. Palomar Combined Cycle

SDG&E spent $17,232,000 in 2016 at Palomar. It forecasts spending of $18,556,000 in 2019, based on a five-year average of 2012-2016 plus incremental costs of operating battery and solar systems, minus some savings from the Fueling Our Future program.[94] TURN recommends a 2.7% ($493,000) reduction to $18,063,000.

As noted above, TURN uses a six-year average including 2017 actual spending. We also remove $711,000 from the base period (average of $119,000 per year in the base six-year period) to remove 80% of the $899,000 of crane rental expenditures identified by SDG&E in its 2012-13 recorded costs. SDG&E purchased cranes in 2014 and therefore eliminated large portions of its future crane rental needs. SDG&E agreed that some adjustment needed to be made in this area, though it claimed that it still had some residual crane rentals.[95] We then apply SDG&E's downward adjustments from 2017 to 2019 and transfer costs from O&M to non-standard escalation for the Ramona solar O&M contract.

Table 42: Recorded and Forecast Costs for Palomar Combined Cycle

	Years	Labor	Non-Labor	NSE	Total
Recorded	2012	3,654	18,005	0	21,659
Recorded	2013	4,066	20,752	0	24,818
Recorded	2014	4,045	12,238	0	16,283
Recorded	2015	3,663	14,583	0	18,246
Recorded	2016	4,128	13,455	0	17,583
Recorded	2017	4,020	13,212	-	17,232
SDG&E Forecast	2017	4,076	15,579	140	19,795
SDG&E Forecast	2018	4,076	14,467	143	18,686
SDG&E Forecast	2019	4,076	14,334	146	18,556
Base	six year average	3,929	15,351	23	19,304
Remove 80% of crane rentals from base			-119		-119
Increment 2017-2019		$ -	$ (1,245)	$ 123	-1,122
TURN Forecast		**3,929**	**13,987**	**146**	**18,063**
SoCal > TURN		147	347		493

[94] SDG&E-16 Workpapers
[95] TURN-SEU DRs 47-16 and 47-17.

C. Desert Star Combined Cycle

SDG&E spent $14,449,000 in 2016 and forecasts $15,561,000 in 2018 for the Desert Star Combined Cycle plant. TURN's forecast is $599,000 (3.9%) lower at $14,962,000.

For labor and non-labor expenses, SDG&E proposes a five-year average minus incremental FOF savings in 2018-19.[96] TURN proposes a 2012-2017 six-year average and also includes incremental FOF savings in 2018-19. TURN also makes a small base year accounting adjustment to remove $5,000 of Chamber of Commerce dues identified in Account 546 in SDG&E's 2016 General Order 77-M report.

For the LTSA, SDG&E started with base year 2016 and subtracted $250,000 for lower operating hours at the plant in 2018-19 as more renewable resources are added. This adjustment is inadequate, as the LTSA costs in 2017 were already $150,000 less than SDG&E's 2019 forecast. TURN therefore rebases the LTSA on a 2016-2017 average and subtracts SDG&E's incremental reduction for 2018-2019 from that lower point, yielding a forecast that is 1% below the 2017 recorded figure.

Table 43 provides TURN's forecast.

[96] SDG&E-16, Workpaper pages 13-15.

Table 43: Recorded and Forecast Costs for Desert Star Combined Cycle

	Years	Labor	Non-Labor	NSE	Total
Recorded	2012	2,599	6,738	10,290	19,627
Recorded	2013	2,540	5,173	10,377	18,090
Recorded	2014	2,783	13,642	7,161	23,586
Recorded	2015	2,920	9,375	8,604	20,899
Recorded	2016	2,741	6,078	5,600	14,419
Recorded	2017	2,537	5,317	5,201	13,056
SDG&E Forecast	2017	2,713	8,094	5,600	16,407
SDG&E Forecast	2018	2,713	7,659	5,587	15,959
SDG&E Forecast	2019	2,713	7,498	5,350	15,561
Base	six year average, 2 yr average NSE Chamber of	2,687	7,721	5,401	15,808
Base Adjustment	Commerce		(5)		
Increment 2017-2019		-	(596)	(250)	(846)
TURN Forecast		**2,687**	**7,120**	**5,151**	**14,962**
SoCal > TURN		26	378	200	604
					-3.9%

D. Miramar Combustion Turbines

SDG&E spent $1,415,000 at Miramar in 2016 and projects spending $2,380,000 based on a five-year average of 2012-2016.[97] SDG&E spent $1,688,000 in 2017. TURN recommends a 4.8% reduction to $2,265,000 based on a six-year average of 2012-2017 and makes no other adjustments.

[97] SDG&E-16, Workpaper page 20.

Table 44: Recorded and Forecast Costs for Miramar Combustion Turbines

	Years	Labor	Non-Labor	NSE	Total
Recorded	2012	369	2,149	0	2,518
Recorded	2013	407	1,430	0	1,837
Recorded	2014	377	2,321	0	2,698
Recorded	2015	354	3,080	0	3,434
Recorded	2016	276	1,139	0	1,415
Recorded	2017	222	1,466	0	1,688
SDG&E Forecast	2017	356	2,024	0	2,380
SDG&E Forecast	2018	356	2,024	0	2,380
SDG&E Forecast	2019	356	2,024	0	2,380
Base	six year average	334	1,931	0	2,265
Increment	2017-2019	$ -	$ -	$ -	0
TURN Forecast		**334**	**1,931**	**0**	**2,265**
SoCal > TURN		22	93		115
					-4.8%

E. Cuyamaca Peak Combustion Turbine

SDG&E spent $1,370,000 at Cuyamaca Peak in 2016 and $689,000 in 2017 (as compared to a 2017 forecast of $1,058,000), and requests $1,078,000 in 2019 based on a five-year average of costs plus a small increment for new black start generation.[98]

TURN recommends an $86,000 (8.1%) reduction to $992,000, because TURN uses a five-year average of labor (2013-2017) and a six-year average of non-labor expenses (2012-2017). TURN excludes 2012 labor for this plant because SDG&E explained that the recorded labor expense that year was unusually high in the first year of utility ownership because of the need for inspections and training that would not recur in the future.[99]

[98] SDG&E Workpaper pages 27-28.
[99] TURN-SEU DR 47-3.

Table 45: Recorded and Forecast Costs for Cuyamaca Peak Combustion Turbine

	Years	Labor	Non-Labor	NSE	Total
Recorded	2012	321	774	0	1,095
Recorded	2013	178	901	0	1,079
Recorded	2014	184	1,070	0	1,254
Recorded	2015	107	387	0	494
Recorded	2016	212	1,158	0	1,370
Recorded	2017	173	516	0	689
SDG&E Forecast	2017	200	858	0	1,058
SDG&E Forecast	2018	216	862	0	1,078
SDG&E Forecast	2019	216	862	0	1,078
Base	5 yr avg L, 6 yr avg NL	171	801	0	972
Increment 2017-2019		16	4	0	20
TURN Forecast		**187**	**805**	**0**	**992**
SoCal > TURN		29	57		86
					-8.0%

F. Otay Mesa Combined Cycle

This plant is coming into service as an SDG&E-owned plant in 2019 after being purchased from Calpine.[100] SDG&E based its forecast for Otay Mesa operating costs on the forecast for Palomar, plus costs for land leases and insurance, and requests $22,796,000.[101] TURN has recommended a $493,000 reduction to the 2019 forecast for Palomar. Thus, if Otay Mesa is allowed in rates in this proceeding, TURN would also reduce the forecast for Otay Mesa by $493,000 to $22,303,000, a 2.2% decrease.

Table 46: SDG&E and TURN Forecast Costs for Otay Mesa Combined Cycle

SDG&E Palomar Base (Otay Mesa without FOF)	19,718
Plus rent and insurance	3,078
SDG&E Otay Mesa Forecast	22,796
Difference between TURN and SDG&E on Palomar	-493
TURN Otay Mesa Forecast	**22,303**
TURN Percentage reduction	-2.2%

[100] TURN understands that ORA has recommended that consideration of issues associated with the Otay Mesa plant be removed from this GRC and instead addressed separately. By presenting this forecast here, TURN is not intending to take a position regarding ORA's recommendation.
[101] SDG&E-16, Workpaper page 34.

G. Generation Plant Administration 1EG001.000)

SDG&E spend $349,000 on generation plant administration in 2016, and forecasts the same amount for 2019. TURN determined that SDG&E only spent $230,000 in this account in 2017 with most of the reduction in labor costs. TURN therefore recommends a 2015-2017 three-year average for this account, since 2016 was the highest year of the three, and recommends $258,000. The reduction is only $91,000 but it is 26% of SDG&E's request (while still allowing about 11% more than the recorded spending in 2017), as shown in Table 47.

Table 47: Recorded and Forecast Costs for Generation Plant Administration (1EG001.000)

	Years	Labor	Non-Labor	NSE	Total
Recorded	2012	332	8	0	340
Recorded	2013	182	4	0	186
Recorded	2014	113	1	0	114
Recorded	2015	185	10	0	195
Recorded	2016	340	9	0	349
Recorded	2017	224	6	0	230
SDG&E Forecast	2017	340	9	0	349
SDG&E Forecast	2018	340	9	0	349
SDG&E Forecast	2019	340	9	0	349
	2015-2017				
Base	average	250	8	0	258
Increment 2017-2019		0	0	0	0
TURN Forecast		**250**	**8**	**0**	**258**
SoCal > TURN		90	1		91
					-26.1%

H. Resource Planning Director (2100-3433.000)

SDG&E spent $746,000 in 2016 and $802,000 in 2017 but requests $1,094,000 in TY 2019. The utility used a five-year average and then added two increments. The bulk of the increase was to add a new and very expensive position. There were also computer software increases.[102] TURN recommends a 2019 forecast of $815,000, which is a decrease of $279,000 or 25% from SDG&E's forecast but higher than the recorded amounts for both 2016 and 2017.

[102] SDG&E-16 Workpaper page 62.

The 2017 labor spending was almost identical to 2016, indicating that the new staffer was not hired as expected in 2017. Non-labor spending increased by $51,000 from 2016, an amount approximately equal to the new software expense.

TURN therefore recommends a three-year average (2015-2017) for labor and 2017 base expenses (which are higher than SDG&E's forecast) for non-labor because 2016 and 2017 had consistent non-labor expenses after accounting for the extra software cost.

Table 48: Recorded and Forecast Costs for Resource Planning Manager (2100-3433.000)

	Years	Labor	Non-Labor	NSE	Total
Recorded	2012	538	201	0	739
Recorded	2013	552	186	0	738
Recorded	2014	607	189	0	796
Recorded	2015	554	193	0	747
Recorded	2016	505	241	0	746
Recorded	2017	510	292	0	802
SDG&E Forecast	2017	833	261	0	1,094
SDG&E Forecast	2018	833	261	0	1,094
SDG&E Forecast	2019	833	261	0	1,094
	3 yr avg L,				
Base	2017 NL	523	292	0	815
Increment 2017-2019		0	0	0	0
TURN Forecast		**523**	**292**	**0**	**815**

I. Generation Capital Costs

TURN makes no adjustments to future generation capital costs, recognizing that costs based on long averages may be higher than actual costs in some years and lower in other years.

However, we sent data requests to determine whether adjustments needed to be made for past costs related to two projects at Palomar that were disallowed in the 2012 Test Year rate case (closed cooling water system upgrade and cooling water biocide upsize project). In response to our data requests, SDG&E stated that the costs of those projects had been included in the revenue requirement starting in 2016 and those costs continued into this case. SDG&E has

agreed to remove those costs retroactively to 2016 and will remove the plant from plant-in-service.[103]

VII. Corporate Cost Allocation

A. Multifactor Basic Allocation

The Sempra Energy Utilities (SEU) directly assign many corporate center costs but those that cannot be assigned are often allocated. Such allocations typically use the "Multifactor Basic" (MFB) Allocation, which is based on revenues, O&M expenses (less fuel and purchased power), assets (all long-term assets but using gross plant instead of net plant), and full-time equivalent employees. Even where more specialized allocation factors are used, the allocation typically starts with MFB as at least one component of their allocation factors for corporate costs. The allocation determines the portion of certain costs assigned to the utilities for inclusion in the authorized revenue requirement, and the portion assigned to the unregulated affiliates within Sempra Energy. The lower the MFB factor for unregulated activities, the higher the costs for utilities as a whole.

SEU have developed an analysis of the 2019 allocation between SDG&E, SoCal Gas, and unregulated activities by examining the values available for each year from 2013 through 2016 (used for calculating multifactor allocations in 2014-2017) and trending them, obtaining 2019 estimates of 35.3% for SDG&E, 40.9% for SoCal, and 23.8% for activity unrelated to California utilities (referred to as "global" or "unregulated" below).[104]

The SEU trend results came from mechanically fitting an Excel function to only three data points. For unregulated activities the first value was high, and the next two were lower. Extrapolating three points ending in 2014 to determine a 2016 estimate created an unrealistically low number for unregulated activities.

This trend line analysis has previously been adopted by the Commission and has previously proven to be extremely wrong. The trends adopted for TY 2012 (based on a similar trend line

[103] TURN-SEU DRs 47-28 and 47-29.
[104] Exhibit SGC-19, Workpaper 419.

analysis) were 41.52% SDG&E, 41.54% SoCal, and 16.94% unregulated.[105] As shown below 2012 recorded multifactor results actually were 37.2% SDG&E, 38.4% SoCal, and 24.5% unregulated. The wooden application of a trend missed Sempra Energy's acquisition of two large South American utilities and gave shareholders a ratepayer-funded windfall for the four-year period covered by the TY 2012 GRC, as the unregulated operations were assigned approximately 50% less of the corporate center costs as would have been warranted. The utilities' 2016 trending came up with an unregulated percentage of 22.14%.[106] The actual percentage was 23.1%.

We also obtained historical information including 2015 data in TURN Sempra DR 3-1 in the 2016 TY GRC. We add 2016-17 data from the Sempra Utilities' current GRC materials and 2018 data from TURN-SEU DR 41-05 and reproduce a summary in Table 49 below.

Table 49: Sempra's Actual Multifactor Percentages 2008-2017

	SDG&E	SCG	Total SEU	Non-Reg
2008	39.4%	45.7%	85.0%	15.0%
2009	38.4%	43.5%	81.9%	18.1%
2010	40.2%	41.4%	81.6%	18.4%
Q1 2011	39.8%	42.6%	82.3%	17.7%
Q2-4 2011	36.3%	38.4%	74.7%	25.3%
2012	37.2%	38.3%	75.5%	24.6%
2013	38.5%	37.5%	75.9%	24.1%
2014	37.7%	38.8%	76.5%	23.5%
2015	36.9%	39.5%	76.4%	23.6%
2016	36.7%	40.2%	76.9%	23.1%
2017	36.1%	39.9%	76.0%	24.0%
2018	35.2%	40.0%	75.3%	24.7%

TURN notes that there is no real trend from 2014 to 2017. SDG&E seems to be declining but both SoCalGas and non-regulated costs fluctuate. In 2018, actual data show that the trend that the utilities proposed in their testimony essentially fell apart with a significant increase in the global or unregulated percentage.

[105] A. 10-12-005/006, Exhibit SDG&E-23, Workpaper 532. The fact that the Commission adopted the utilities' figures is noted in D.13-05-010, page 808.
[106] Exhibit SGC-19, Workpaper 419 in the 2016 TY GRC.

To forecast 2019, we start with 2018 and add the known and measurable change related to the acquisition of 80.25% of Oncor. We also remove 2019 assets related to the San Onofre Nuclear Generating Station (SONGS) from SDG&E and Aliso Canyon from SoCalGas to remove costs that should not be paid by ratepayers and therefore should not be used in these forecasts. The specific adjustments are a non-current receivable from SCE of $120 million for SDG&E for payment for the final SONGS Settlement,[107] and an insurance receivable of $447 million (first quarter 2018)[108] for SoCalGas. The calculation is shown in Table 50.

Table 50: TURN's Calculation of Multifactor Percentages Starting with 2018 Data and Accounting for Oncor

	Operating Revenues	Percent	Operating Expenses	Percent	Non-Current Assets	Percent	Dec 2017 FTE	percent	Multifactor percent
2018 Based on December 2017 Actuals from TURN-SEU DR 41-05									
SDG&E	4,476	39.94%	1,285	36.17%	21,693	38.52%	3,992	26.08%	35.18%
SoCalGas	3,785	33.77%	1,623	45.68%	18,546	32.93%	7,383	48.23%	40.15%
Global	2,946	26.29%	645	18.15%	16,082	28.55%	3,932	25.69%	24.67%
Total	11,207	100.00%	3,553	100.00%	56,321	100.00%	15,307	100.00%	100.00%
Add Oncor	**Use 1Q 10-K for assets only**								
SDG&E	4,476	39.94%	1,285	36.17%	22,007	33.08%	3,992	26.08%	33.82%
SoCalGas	3,785	33.77%	1,623	45.68%	18,957	28.50%	7,383	48.23%	39.05%
Global	2,946	26.29%	645	18.15%	25,553	38.42%	3,932	25.69%	27.14%
Total	11,207	100.00%	3,553	100.00%	66,517	100.00%	15,307	100.00%	100.00%
TURN 2019 Forecast: Add Oncor, Subtract SONGS and Aliso Canyon long-term receivables									
SDG&E	4,476	39.94%	1,285	36.17%	21,887	33.19%	3,992	26.08%	33.84%
SoCalGas	3,785	33.77%	1,623	45.68%	18,510	28.07%	7,383	48.23%	38.94%
Global	2,946	26.29%	645	18.15%	25,553	38.75%	3,932	25.69%	27.22%
Total	11,207	100.00%	3,553	100.00%	65,950	100.00%	15,307	100.00%	100.00%

TURN's and SEU's Multifactor Adjustments are compared below. TURN recommends a 1.46% lower multifactor adjustment for SDG&E, a lower adjustment for SoCal by 1.96%, and an increase of 3.42% for unregulated activities.

[107] TURN-SEU DR 41-6.
[108] Sempra 10-Q (May 7, 2018), p. 21.

Table 51: Comparison of SEU and TURN Multifactor Calculations

	SEU 2019	TURN 2019	SEU > TURN
SDG&E	35.30%	33.84%	1.46%
SoCalGas	40.90%	38.94%	1.96%
Global	23.80%	27.22%	-3.42%
Total	100.00%	100.00%	

The many sub-allocation factors in SoCal's workpapers change to the extent that Multifactor Basic is changed.

The only sub-allocation factor where TURN recommends a change (except for changes flowing directly from MF Basic) is that SEU's allocation factors for the Treasury function are based on significant projects to be financed. The utilities judgmentally reduced the Global allocation from 60% to 50% for 2019. We would retain it at 60% given the need to finance the acquisition of Oncor and its ongoing capital spending needs, which were not considered in the utilities' testimony.

The utilities' spreadsheet workpapers for corporate center costs other than insurance (provided in response to TURN DR 41-12) represent one of the worst programming jobs we have ever seen. They are entirely hard-wired and do not change when an allocation factor changes. Allocation factors have to be re-entered by hand and the amount billed to the utility must be reprogrammed on 89 separate spreadsheets. To develop factors that are used on the 89 spreadsheets, allocation factors must be entered on 18 separate allocation sheets and several different allocation factors must be entered on 7 more sheets for vice presidents and executive vice presidents. As a result, we have been unable to complete the job of determining the revenue requirement impact of the new allocation factors, except for insurance, derived below. We expect that the impact would be several million dollars moved away from the utilities.

B. Applying Allocation Changes to Insurance

TURN has reviewed the utilities' insurance testimony, with the exception of wildfire insurance. TURN does not take exception to the total cost of insurance that it reviewed. However, TURN has modified the allocation factors for insurance.

The utilities assign $126,270,000 of insurance costs to SDG&E. TURN reduces this amount by $1,165,000 to $125,105,000.

The utilities assign $38,560,000 of insurance costs to SoCal Gas. TURN reduces this amount by $1,565,000 to $36,994,000.

TURN contends that the Sempra Utilities made a specific error in their allocation of Directors' and Officers' liability insurance (D&O insurance), discussed below. TURN also adjusts the insurance allocation factors to use its proposed multi-factor basic allocator and presents that information.

1. Specific Allocation of Directors' and Officers' Liability Insurance

In previous cases, this Commission has assigned 50% of D&O insurance to shareholders, because D&O insurance (unlike a number of other types of insurance) provides a source of funding when shareholders sue company management, often for issues that would be below-the-line in rate cases. This practice is followed by a number of other state utility regulators.

The Sempra Utilities in this case try to adhere to the principle, but they got the math wrong. SEU assigned 50% of the total cost to unregulated activities and thus shareholders, and the remaining 50% to the utilities.[109] However, using the utilities' allocation methods, 23.8% should be initially allocated to shareholders using MFB (27.22% using my MFB calculations). The end result is that the Sempra Utilities effectively assigned 50% to utilities, 23.8% to unregulated activities that would have received the allocation had MFB been used without adjustment, and 26.2% to shareholders.

The correct calculation would first retain 50% of the costs as corporate costs to be assigned to shareholders, and then allocate the remaining 50% of the costs to the utilities and other activities using multifactor basic. Only this calculation would truly assign 50% of the utility's share of D&O insurance to shareholders, as this Commission has done for almost two decades.

The calculation in Table 52 shows TURN's recommended allocation given the Sempra Utilities' forecast expense for D&O insurance. We implemented this calculation by creating TURN

[109] SCG-20, Workpaper 42.