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Witness: M. Reno

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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of San Diego Gas & Electric Company (U-902-E) for Authority to Update Marginal Costs, Cost Allocation, and Electric Rate Design.	Application 23-01-008 (filed January 7, 2023)

DIRECT TESTIMONY OF MAUREEN L. RENO

ON BEHALF OF

SMALL BUSINESS UTILITY ADVOCATES

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SBUA
Small Business Utility Advocates

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I. IDENTIFICATION AND QUALIFICATIONS

Q. PLEASE STATE YOUR FULL NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Maureen L. Reno. I am an economist with a specialization in public utility economics and finance. I am the founder and principal consultant of Reno Energy Consulting Services, L.L.C. My business address is 19 Hope Hill Road, Derry, New Hampshire 03038.

Q. PLEASE SUMMARIZE YOUR EDUCATION.

A. I received a Bachelor of Arts degree in Economics from the University of Maine at Orono, Maine in 1996. In 1998, I earned a Master of Arts degree in Economics from the University of New Hampshire in Durham, New Hampshire, where I also completed all course work and examination requirements for a Ph.D. degree in Economics, except for my dissertation. My areas of academic concentration included industrial organization and environmental economics.

Q. WHAT IS YOUR PROFESSIONAL BACKGROUND?

A. I have over 23 years of professional experience in the regulated utilities and energy sectors. From 2001 to 2011, I served as a utility analyst and program manager with the New Hampshire Public Utilities Commission advising the Commissioners on regulated utilities' cost of capital and return on equity ("ROE"). From 2011 to 2012, I served as a Senior Energy Economist with the Union of Concerned Scientists, advising on the intricacies of the regulated utility industry and helping to develop alternative financing programs for renewable energy investments. Since 2012, I have served as an independent consultant to multiple firms, including Exeter Associates, Inc. and TAHOEconomics, LLC on utility cost of capital, ROE, and capital structure; Stephenson Strategic Communications, LLC on federal climate and energy policy; and TrueLight Energy, LLC on regulated utility rate

impacts and energy markets. I have recently provided testimony on decoupling rate mechanisms and rate design issues on behalf of clients in New Mexico and the New Hampshire Office of the Consumer Advocate.

Q. HAVE YOU PREVIOUSLY TESTIFIED AS AN EXPERT WITNESS BEFORE A PUBLIC UTILITY COMMISSION?

A. Yes. My testimony was presented and accepted in over 30 regulated utility proceedings in nearly a dozen states, including Alaska, Arizona, Delaware, Georgia, Kansas, Missouri, New Hampshire, New Mexico, North Carolina, Oklahoma, and Texas. I have testified on a wide range of issues concerning regulated utilities, retail and wholesale energy markets, and renewable energy. (See Appendix A for my curriculum vitae and professional qualifications.)

II. PURPOSE OF TESTIMONY AND SUMMARY OF RECOMMENDATIONS

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to review the rate design proposals of San Diego Gas & Electric ("SDG&E" or "the Company") pertaining to proposed changes in its small and medium commercial tariffs. I also review certain cost allocation issues.

Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A. I am testifying on behalf of Small Business Utility Advocates ("SBUA").

Q. WHAT IS SBUA'S MISSION?

A. SBUA's mission is to represent the utility concerns of the small business community by promoting an electricity rate structure that facilitates the success of small commercial customers with cost effective utilities supplying clean and renewable energy.[1]

[1] *See* SBUA website at www.utilityadvocates.org.

Q. WHAT IS THE ECONOMIC IMPACT OF SMALL BUSINESSES IN CALIFORNIA?

A. In California, small businesses constitute 99.8% of all business enterprises and are responsible for 94.9% of California's exports.[2] Small businesses also provide 47.9% of private sector employment.[3] Given their economic influence, the needs of small businesses are crucial to consider in this proceeding because they are often underrepresented in utility proceedings. Moreover, the interests of small businesses do not necessarily coincide with the interests of residential ratepayers or large commercial and industrial customers, especially with respect to rate design and cost of electric service.

Q. WHAT ISSUES DO YOU ADDRESS IN THIS TESTIMONY?

A. I address the following aspects of SDG&E's rate-design proposals:

- Monthly Service Fees ("MSFs");
- Splitting the Medium and Large Commercial and Industrial ("M/L C&I") rate class;
- Time of use ("TOU") periods; and
- TOU differentials across all customer classes.

Q. WHAT IS SDG&E'S PROPOSAL WITH RESPECT TO MONTHLY SERVICE FEES?

A. SDG&E is proposing to increase Monthly Service Fees by 15% each year over the four-year GRC Phase 2 cycle from 2024 to 2027 for most Small Commercial customers.

[2] Small businesses are defined as having less than 500 employees. U.S. Small Business Administration, "2022 Small Business Profile: California." https://advocacy.sba.gov/wp-content/uploads/2022/08/Small-Business-Economic-Profile-CA.pdf

[3] *Id.*

Q. SHOULD THE CPUC ADOPT SDG&E'S PROPOSAL WITH RESPECT TO MONTHLY SERVICE FEES?

A. No. The proposed increases in MSFs are excessive and will impose an unacceptable burden on small businesses, which are the economic engine of California. Evidence presented in this testimony shows that SDG&E's preference for the ("RECC" or "Rental") method for estimating marginal customer access costs ("MCAC") and equal percentage marginal costs ("EPMC") scaling produces unfair and unjust rates.

Q. WHAT IS SDG&E'S PROPOSAL WITH RESPECT TO THE M/L C&I CLASS?

A. SDG&E is proposing to split the M/L C&I rate class into two distinct rate classes: medium commercial and large C&I classes.

Q. SHOULD THE CPUC ADOPT SDG&E'S PROPOSAL WITH RESPECT TO SPLTING THE M/L C&I CLASS?

A. Yes, under certain conditions. Specifically, SDG&E should waive distribution demand charge for formally considered small commercial customers. SDG&E should also adopt MSFs using the NCO without EPMC scaling.

Q. WHAT IS SDG&E'S PROPOSAL WITH RESPECT TO TOU PERIODS?

A. SDG&E is proposing to modify the definition of TOU periods.

Q. SHOULD THE CPUC ADOPT SDG&E'S PROPOSAL WITH RESPECT TO TOU PERIODS?

A. Yes. The California Public Utilities Commission ("CPUC" or "Commission") should adopt SDG&E's proposal to extend its super off-peak period to all months of the year. However, evidence presented by Public Advocates Office ("Cal Advocates") shows that the Commission should also require SDG&E to offer a new on peak period in the morning and shift the evening on peak period to match high-cost hours.

Q. WHAT IS SDG&E'S PROPOSAL WITH RESPECT TO TOU DIFFERENTIALS ACROSS ALL CUSTOMER CLASSES?

A. SDG&E is proposing to maintain current TOU differentials across all customer classes.

Q. SHOULD THE CPUC ADOPT SDG&E'S PROPOSAL WITH RESPECT TO TOU DIFFERENTIALS ACROSS ALL CUSTOMER CLASSES?

A. Yes. However, the SBUA reserves the right to alter its recommendation on TOU differentials in rebuttal testimony as more market data becomes available through outstanding responses to data requests.

III. RATE DESIGN ISSUES

Q. WHAT TARIFFS DOES YOUR TESTIMONY CONCERN?

A. SBUA is primarily concerned with three Small Commercial and Industrial tariffs and the proposed Medium Commercial tariff (to the extent it impacts small commercial customers), but we believe that some of our small commercial customers may also elect to be served by a large tariff.

Q. PLEASE DESCRIBE SDG&E'S SMALL COMMERCIAL RATE SCHEDULES.

A. SDG&E's Small Commercial rate schedules are available to customers with monthly maximum demands that are frequently less than 20 kilowatts ("kW"). SDG&E's Small Commercial rate design is guided by marginal distribution and commodity costs; thus, the rate design is developed in two parts: distribution and commodity. However, SDG&E is proposing to maintain the current commodity rate design. SDG&E's Small Commercial distribution rate structure includes an MSF that is differentiated by customer (demand) size and a flat dollar per kilowatt hour ("kWh") charge.[4]

[4] A.23-01-008, SDG&E Revised Opening Testimony, Chapter 3, September 29, 2023 at 11.

Certain Small Commercial customers are also eligible for enrollment in the electric California Alternate Rates for Energy Program ("CARE") program. SDG&E classifies the non-residential CARE program as "Expanded CARE, or E-LI."[5]

Q. DEFINE MONTHLY SERVICE FEES.

A. The MSF is a "dollar per month charge to recover the customer cost portion of distribution revenues, differentiated by customer size category with the Small Commercial customer class. There is no difference in MSFs between legacy (grandfathered) and current or proposed Standard TOU (non-grandfathered) customers[.]"[6]

Q. HOW ARE THE MONTHLY SERVICE FEES CURRENTLY STRUCTURED IN SDG&E'S SMALL AND MEDIUM BUSINESS TARIFFS?

A. Each of the tariffs has one or more MSFs, varying by demand and/or voltage.

Q. WHAT HAPPENS IF THE MONTHLY SERVICE FEES ARE NOT LARGE ENOUGH TO RECOVER THE CUSTOMER COST PORTION OF DISTRIBUTION REVENUES?

A. The distribution revenues that are not recovered in the MSFs are recovered through an energy charge that is a volumetric dollar per kWh charge.

Q. WHAT CHARGES ARE INCLUDED IN THE COMMODITY PORTION OF A SMALL COMMERCIAL CUSTOMER'S BILL?

A. SDG&E's current effective rate design for small commercial commodity includes a volumetric energy charge, dollar per kWh, that recovers commodity revenues related to marginal energy and marginal generation costs differentiated by season and TOU period structure. In addition, SDG&E also offers commodity dynamic pricing options that include

[5] Expanded CARE is available to non-profit organizations, group living facilities, and agricultural employee housing facilities, and the program provides an overall rate discount of 35%.

[6] A.23-01-008, SDG&E Revised Opening Testimony, Chapter 3, at 11:6-10.

a critical peak pricing ("CPP") adder that is determined by averaging the top nine event days in a year, $/kWh, to recover a portion of generation capacity costs.

Q. WHAT RATE SCHEDULES FOR SMALL COMMERCIAL CUSTOMERS IS SDG&E PROPOSING?

A. SDG&E proposes the following small commercial rate schedules:

1. Schedule TOU-A: SDG&E's default 2-period seasonally differentiated TOU rate with a fixed dollar-per-month MSF.
2. Schedule TOU-A3: Optional 3-period seasonally differentiated TOU rate with a fixed dollar per month MSF.
3. Schedule TOU-A2: Optional more cost-based (as compared to Schedule TOU-A and TOU-A3) seasonally differentiated 3-period TOU rate with a fixed dollar per month MSF. Recovers generation capacity costs through the summer on-peak TOU rate.
4. Schedule A-TC: Flat volumetric rate with a fixed dollar per month MSF, applicable to traffic control services.
5. Schedule UM: Flat seasonal volumetric rate with a fixed dollar per month MSF, applicable to unmetered electric service.
6. Schedule TOU-A (Legacy TOU): Optional 3-period seasonally differentiated TOU rate with a fixed dollar per month MSF, available to certain eligible behind-the-meter solar customers.

With the exception of the Schedules A-TC and Schedule UM, SDG&E offers an optional CPP version with set event adder for each of the rate schedules listed above.[7]

[7] A.23-01-008, SDG&E Revised Opening Testimony, Chapter 3, September 29, 2023, at 11-12.

A. SDG&E'S PROPOSED CHANGES TO MONTHLY SERVICE FEES

Q. WHAT ARE THE DIFFERENT TYPES OF RISK THAT A REGULATED UTILITY LIKE SDG&E MAY FACE?

A. Business risk, as perceived by investors, includes all the operating factors that increase the probability that expected future cash flows accruing to investors may not be realized. Business risk would include such factors as sales volatility and operating leverage. A utility's business risk is a function of factors such as customer base diversity, necessary capital expenditures, the regional and national economy, and the regulatory environment in which the utility operates.

Financial risk relates to the capital structure of a company, including its fixed contractual obligations and ability to pay interest on its debt and refinance that debt when it is due. Credit-rating agencies assess the financial health of a company through the use of key financial ratios that measure the extent to which a company can pay its debt, including principal and interest.

Regulatory risk is based on the investor's perceived understanding of the current regulatory environment along with possible changes to that regulatory environment. How regulators treat regulatory lag is one example of regulatory risk. To the extent that companies face a time lag between incurring expenses and cost recovery, such risk is best measured by choosing a proxy group of companies that face similar regulatory oversight and earn the majority of their revenues from regulated operations.

Q. HOW DO REGULATED UTILITIES LIKE SDG&E SEEK TO MITIGATE BUSINESS, FINANCIAL, AND REGULATORY RISK?

A. Regulated utilities like SDG&E seek to mitigate their business, financial, and regulatory risk through fixed charges, riders, and other mechanisms that guarantee cost recovery while reducing revenue uncertainty and volatility.

Q. ARE SUCH MECHANISMS IN THE PUBLIC INTEREST?

A. Cost recovery mechanisms are in the public interest only so long as they are reasonable in nature. Regulators should consider the potential burden on ratepayers and the potential for reduced scrutiny of utility expenditures.

Q. DO YOU CONSIDER SDG&E'S PROPOSED INCREASES IN MONTHLY SERVICE FEES TO BE REASONABLE IN NATURE?

A. No. The proposed increases are unacceptable and unreasonable. If you refer to Table 1, you will see that SDG&E is proposing to increase monthly service fees by 75% for seven of the eight rate classes in Schedule TOU-A/TOU-A3, by 22% to 82% of the eight rate classes in Schedule TOU-A2, by 75% for the rate class in Schedule UM, and by 75% for both rate classes in Schedule A-TC.

In its Application, SDG&E concedes that the purpose of the proposed increases is to recover up to 100% of the cost basis for the Small Commercial and Medium Commercial classes. Such increases would violate the essential bargain between SDG&E and ratepayers for reliable service in exchange for a fair return.

SDG&E has a consistent record of pursuing expansion of fixed charges at the expense of ratepayers—witness its position as described by the CPUC in Decision 17-09-035, which would have defined a fixed charge for residential customers as excluding only marginal energy costs. However, these proposed increases are particularly egregious because they would impose severe burdens on the small businesses that are California's

economic engine, with no income-based (or consumption-based) differentiation as proposed by the Sierra Club in Rulemaking 22-07-005.

Q. WHAT ARE CAL ADVOCATES' VIEW OF SDG&E'S PROPOSED INCREASES IN THE MONTHLY SERVICE FEES?

A. The first concern is the method SDG&E proposes to use to calculate MCAC. The MCAC includes the marginal customer equipment costs ("MCEC") and ongoing customer service costs associated with keeping customers connected to the grid. SDG&E proposes MSFs based on estimates using the RECC or Rental method. Cal Advocates proposes that SDG&E's MCACs should be calculated using the NCO method in lieu of the RECC method. SDG&E's proposal of using the RECC method produces MSFs that are significantly higher than Cal Advocate's proposed MSFs.

Cal Advocates' second concern is that SDG&E's proposed MSFs for Small Commercial customers also reflect equal percentage marginal costs ("EPMC") scaling. According to Cal Advocates, EPMC scaling incorrectly escalates MSFs to recover usage driven distribution costs in a charge intended to recover costs that do not vary with usage.[8] Cal Advocates propose that the Commission exclude this EPMC scaling when determining MSFs for small commercial customers.

Q. WHAT IS THE DIFFERENCE BETWEEN THE REAL ECONOMIC CARRYING CHARGE AND THE NEW CUSTOMER ONLY METHOD?

A. The RECC method recovers connection equipment costs through an estimated rental price that assigns the same purchased value to both new and existing connection equipment. In contrast, the NCO method recovers the full cost of the equipment related to a customer's decision to connect to the grid. The NCO method excludes projected future replacement TSM costs and includes a perpetuity factor for lifetime connection equipment replacement

[8] A.23-01-008, Public Advocates Office, Opening Testimony, Chapter 8, December 8, 2023, at 8-6:24-26.

costs. Unlike the RECC method that considered costs over the long term, the NCO method only considers cost over a relatively short period to develop the marginal customer equipment costs.

Q. WHAT IS COMMISSION PRECEDENT REGARDING METHODS USED TO DETERMINE MSFS?

A. In A.16-06-013, the Commission considered a series of different models for estimating marginal customer costs, including the NCO method, RECC method, two adjustments to the Rental method, a minimum threshold method, and a y-intercept method. However, the Commission decided not to adopt a single method to calculate capital-related customer costs due to a lack of consensus on the appropriate method.[9]

In a more recent decision regarding rate design for Pacific Gas and Electric Company, A.19-11-019, the Commission has posed the question: is it appropriate to only use the costs associated with new investments in access equipment in a given year when determining the value of marginal customer equipment costs ("MCEC"), or may a value be assigned to existing assets as well even if those existing assets were previously used to hook up a marginal customer?[10] The same order states that, "The RECC method seeks to value all existing access equipment as if it were new equipment, and then appropriately annualize the value over a given number of years. Existing equipment that may be used for customer access is plainly not new and should not be valued as such."[11] However, the same decision contemplates another approach that utilizes the RECC method while also accounting for the difference in costs between existing equipment and new equipment, by

[9] D.17-09-035, issued on October 4, 2017, at 38.

[10] D.21-11-016, issued on November 19, 2021, at 17.

[11] *Id*. at 20.

using the replacement cost new less depreciation ("RCNLD"), which the Commission adopts later in the decision.[12]

Q. DOES CAL ADVOCATES' TESTIMONY ADDRESS THIS COMMISSION DECISION?

A. Yes. According to Cal Advocates, the RCNLD method ineffectively attempts to combine different features of the RECC and NCO methods and fails to simulate how connection equipment costs are recovered through rates. Specifically, the RCNLD method assumes that all customer connections are marginal every year and produces an MCEC that attempts to represent a deferral value based on the potential resale value for connection equipment.[13] Cal Advocates argue that absent a competitive market that would otherwise yield a market clearing price, there is no way to verify whether the average depreciated price accurately reflects the correct resale value of existing equipment. Moreover, SDG&E confirms in a discovery response to Cal Advocates that it is not aware of a market for used final line transformers, service line drops, and electric meters at prices higher than salvage values.[14] Moreover, The Commission has already ruled that salvage values are negligible.[15]

[12] D.21-11-016, issued on November 19, 2021, at 23.

[13] A.23-01-008, Public Advocates Office, Opening Testimony, Chapter 1, December 8, 2023, at 1-15 and 1-16.

[14] *Id*. at Attachment 1-B: SDG&E's November 7, 2023 Response to Data Request Cal Adv-SDGE-034, Question 5.

[15] D.96-04-050, at 66. Referenced in A.23-01-008, Public Advocates Office, Opening Testimony, Chapter 1, December 8, 2023, at 1-16.

Q. DID SDG&E PROVIDE ILLUSTRATIVE MSFS USING THE NCO METHOD?

A. Yes. However, Cal Advocates reports that SDG&E inadvertently erred in deriving these estimates by using the large commercial customer counts for SDG&E illustrative medium commercial in the NCO method in lieu of medium commercial customer accounts.[16]

Q. DOES SBUA SUPPORT SGD&E'S PROPOSAL TO USE THE REAL ECONOMIC CARRYING CHARGE TO CALCULATE MSFS?

A. No. The SBUA does not support the use of the RECC method because is violates marginal cost principles and serves only to inflate the cost of customer access equipment.

Q. PLEASE ELABORATE.

A. The RECC method attempts to calculate the value of all equipment used to connect a customer to a grid, regardless of the age of the equipment or whether it is used to connect a new customer to the grid.

Q. WHAT IS EPMC SCALING?

A. The EPMC factor is calculated by dividing the distribution revenue requirement by the revenues collected from fixed customer access costs and usage driven distribution demand marginal costs.

Q. WHAT IS THE COMMISSION PRECEDENT REGARDING EPMC SCALING?

A. The Commission has explicitly rejected the use of an EPMC factor when considering residential fixed charges. In D.17-09-035, the Commission states, "Because the amount of costs calculated by the equal percentage of marginal cost is subject to variation and not directly linked to customer-specific fixed costs they are not appropriately included in calculation of a fixed charge."[17]

[16] A.23-01-008, Public Advocates Office, Opening Testimony, Chapter 1, December 8, 2023, Attachment 1-A: SDG&E's Illustrative NCO Method MCEC.

[17] D.17-09-035, issued on September 28, 2017, Conclusion of Law 8, at 58.

Q. DOES SBUA SUPPORT SDG&E'S PROPOSAL TO USE EPMC SCALING WHEN DETERMINING SMALL COMMERCIAL MSFS

A. No. The SBUA agrees with Cal Advocates that the Commission should reject SDG&E's proposal to increase small commercial MSFs using EPMC scaling because it would penalize such customers by recovering costs unrelated to marginal customer costs.

Q. WHAT ARE THE RESULTING MSFS USING THE RECC AND NCO METHODS?

A. Table 1 below shows the vast differences in MSFs derived using the RECC and the NCO methods and the percentage changes of proposed MSFs relative to current MSFs. For example, SDG&E's proposed MSFs using the RECC method for Schedules TOU-A/TOU-A3 would yield a 75% increase in most of the MSFs relative to current MSFs. In contrast, MSFs for the same rate schedule using the NCO results provided by Cal Advocates (without EPMC scaling) shows decreases in MSFs ranging from 8% to 88% relative to current MSFs. Table 1 also shows the saved increases associated with using the NCO method in lieu of the RECC method for Schedule TOU-A/TOU-A3.

SBUA Table 1: Comparison of MSFs using the RECC and NCO methods

Small Commercial Rate Schedule	MSF as of 01/01/23* ($/month)	SDG&E's Proposed (RECC) MSF ($/month)	% Change from current rates	Cal Advocates' Calculated (NCO) MSF ($/month)	% Change from current rates	% Change between RECC and NCO methods
Schedule TOU-A/TOU-A3						
Secondary Service:						
0-5 kW	11.45	20.02	75%	9.62	-16%	108%
5-20 kW	18.32	32.04	75%	11.14	-39%	188%
20-50 kW	34.35	60.07	75%	12.38	-64%	385%
>50 kW	85.87	150.18	75%	15.28	-82%	883%
Primary Service:						
0-5 kW	11.45	20.02	75%	10.55	-8%	90%
5-20 kW	18.32	32.04	75%	10.55	-42%	204%
20-50 kW	34.35	60.07	75%	10.55	-69%	469%
>50 kW	85.87	96.88	13%	10.54	-88%	819%
Schedule TOU-A2						
Secondary Service:						
0-5 kW	24.14	43.89	82%	9.62	-60%	356%
5-20 kW	71.35	118.56	66%	11.14	-84%	964%
20-50 kW	181.16	230.82	27%	12.38	-93%	1764%
>50 kW	532.68	649.19	22%	15.28	-97%	4149%
Primary Service:						
0-5 kW	48.61	77.08	59%	10.55	-78%	631%
5-20 kW	79.34	117.99	49%	10.55	-87%	1018%
20-50 kW	142.18	194.25	37%	10.55	-93%	1741%
>50 kW	463.52	550.77	19%	10.54	-98%	5126%
Schedule A-TC						
<5 kW	11.45	20.02	75%	9.62	-16%	108%
>5 kW	18.32	32.04	75%	11.14	-39%	188%
Schedule UM						
All UM	9.83	20.02	104%	9.62	-2%	108%

Sources: SDG&E Tariffs Effective Jan. 1, 2024, SDG&E Ch3_Rate Design - Small Commercial_Updated_WP2 and Cal Advocates Opening Testimony, Chapter 8, December 8, 2023, Table 8-1.

*Note: MSFs of 1/1/2023 for Sch. TOU-A2 reported by Cal Advocates do not match rates shown in SDG&E Tariffs or SDG&E Chapter 3 Rate Design - Small Commercial_Updated_WP2.

Q. DOES SDG&E'S PROPOSED MSFS MEET COMMISSION RATE DESIGN PRINCIPLES?

A. No.

Q. WHY DO YOU BELIEVE THAT SDG&E'S PROPOSED MSFS DO NOT MEET COMMISSION RATE DESIGN PRINCIPLES?

A. The Commission states that "Rates should encourage economically efficient (i) use of energy, (ii) reduction of GHG emissions, and (iii) electrification."[18] The Commission also states that "Rates should encourage customer behaviors that improve electric system reliability in an economically efficient manner."[19] SDG&E's excessive MSFs do not meet these rate design principles because over-recovery of distribution costs through MSFs will dampen price signals that would otherwise encourage conservation, investments in energy efficiency, or distributed renewable generation.[20]

More reasonable MSFs would result in the need to increase volumetric energy rates to recover the same allocated revenue requirement thereby providing the opportunity for customers to control costs by reducing electric use, particularly during periods when electricity has the highest costs.[21] Economic studies have measured customers' responses to price signal through price elasticities (the ratio of the percentage change in consumption to the percentage change in price) and have shown that such responsiveness to the price of electricity increases from close to nonresponsive in the short-term to more responsive over the long-term. Basically, as time passes, customers have more opportunity to adjust electricity consumption through investments in conservation, energy efficiency, and/or renewable/storage technologies. Such studies have also shown that a customer's responsiveness to electricity prices increases with customer size. A study for the Centre for

[18] D.23-04-040, issued on May 3, 2023, at 36: 1(d) and (e).

[19] *Id*.

[20] National Association of Regulatory Utility Commissioners, *Distributed Energy Resources Rate Design and Compensation*, 118 (November 2016), available at https://pubs.naruc.org/pub/19FDF48B-AA57-5160-DBA1-BE2E9C2F7EA0

[21] D.23-04-040, issued on May 3, 2023, Attachment A at 2.

Applied Macroeconomic Analysis show that the long-run price elasticity demand is around -1 for residential customers, between -0.3 and -0.6 for the commercial sector, and -1.2 or larger for the industrial sector.[22] In other words, a 1% increase in price resulted in a 0.3% and 0.6% decrease in electricity.

Q. WHAT ARE THE IMPLICATIONS OF THE PRICE ELASTICITY OF DEMAND FOR ELECTRICITY?

A. The price elasticities of electricity demand discussed above show that there is an opportunity for the Commission to encourage conservation and investments in energy efficiency and alternative technologies if it approves MSFs using the NCO method. The lower MSFs and resulting higher volumetric distribution rates would incentivise customers to adjust energy usage by responding to different TOU period prices and effectively managing their electricity bills.

Q. WHAT IS SBUA'S PROPSAL REGARDING MSFS FOR SMALL COMMERCIAL CUSTOMERS?

A. SBUA agrees with Cal Advocates' assessment that the NCO method is the more appropriate method for estimating MSFs because it is a more accurate measure of marginal customer costs and meet CPUC rate design principles. Table 2 below shows the decrease in MSFs over the next four years.

[22] Burke, Paul J. and Ashani Abayasekara, "The price elasticity of electricity demand in the United States: A three-dimensional analysis" Centre for Applied Macroeconomic Analysis, Working Paper 50/2017 (August 2017), at 19. https://cama.crawford.anu.edu.au/sites/default/files/publication/cama_crawford_anu_edu_au/2017-08/50_2017_burke_abayasekara_0.pdf

SBUA Table 2: Changes in MSFs over 4 Years using the NCO method

Small Commercial Rate Schedule	MSF as of 01/01/23* ($/month)	Proposed Year 1	Proposed Year 2	Proposed Year 3	Proposed Year 4	% Change from current rates Year 4
Schedule TOU-A/TOU-A3						
Secondary Service:						
0-5 kW	11.45	10.99	10.54	10.08	9.62	-16%
5-20 kW	18.32	16.53	14.73	12.94	11.14	-39%
20-50 kW	34.35	28.86	23.37	17.87	12.38	-64%
>50 kW	85.87	68.22	50.58	32.93	15.28	-82%
Primary Service:						
0-5 kW	11.45	11.23	11.00	10.78	10.55	-8%
5-20 kW	18.32	16.38	14.44	12.49	10.55	-42%
20-50 kW	34.35	28.40	22.45	16.50	10.55	-69%
>50 kW	85.87	67.04	48.21	29.37	10.54	-88%
Schedule TOU-A2						
Secondary Service:						
0-5 kW	24.14	20.51	16.88	13.25	9.62	-60%
5-20 kW	71.35	56.30	41.25	26.19	11.14	-84%
20-50 kW	181.16	138.97	96.77	54.58	12.38	-93%
>50 kW	532.68	403.33	273.98	144.63	15.28	-97%
Primary Service:						
0-5 kW	48.61	39.10	29.58	20.07	10.55	-78%
5-20 kW	79.34	62.14	44.95	27.75	10.55	-87%
20-50 kW	142.18	109.27	76.37	43.46	10.55	-93%
>50 kW	463.52	350.28	237.03	123.79	10.54	-98%
Schedule A-TC						
<5 kW	11.45	10.99	10.54	10.08	9.62	-16%
>5 kW	18.32	16.53	14.73	12.94	11.14	-39%
Schedule UM						
All UM	9.83	9.78	9.73	9.67	9.62	-2%

Sources: SDG&E Tariffs Effective Jan. 1, 2024 and Cal Advocates Opening Testimony, Chapter 8, December 8, 2023, Table 8-1.

*Note: MSFs of 1/1/2023 for Sch. TOU-A2 reported by Cal Advocates do not match rates shown in SDG&E Tariffs.

B. SDG&E'S PROPOSAL TO DIVIDE THE CURRENT M/L C&I CLASS INTO A MEDIUM C&I CLASS AND A LARGE C&I CLASS.

Q. WHAT IS SDG&E'S PROPSAL REGARDING SPLITING ITS M/L C&I CUSTOMER CLASS INTO TWO DISTINCT CLASSES?

A. SDG&E proposes to divide its M/L C&I customer class into two distinct customer classes: a large C&I classes, and a new Medium Commercial class available to commercial customers with demands up to 200kW. SDG&E avers that its cost studies show differences in the cost to serve lower demand (under 200 kW) and higher demand (over 200 kW) customers in the existing M/L C&I class. The Commission has previously used 200kW as a point of delineation between medium and large commercial customers.[23] Eligibility for each customer would be based on each month's maximum demand and allow the 200 kW threshold to be exceeded twice per twelve months, unless demand exceeds 500 kW in any month. SDG&E is also proposing to offer differentiated MSFs to medium commercial customers with demand below 100kW and demands greater than or equal to 100kW. The applicable MSF would be determined each month based on actual demand as is the case for small commercial customers.[24]

SDG&E's proposed distribution rate design for the new medium commercial rates include the MSF, a dollar per month charge to recover the customer cost portion of distribution revenues; a distribution demand charge, a dollar per kW demand charge to recover distribution revenues associated with distribution demand costs; and an energy charge, a dollar per kWh rate based on cumulative kWh consumption.

[23] A.23-01-008, SDG&E Revised Opening Testimony, Chapter 3, September 29, 2023, at 19.

[24] *Id*.

Q. WHAT ARE THE NEW RATE SCHEDULES ASSOCIATED WITH THE NEWLY CREATED MEDIUM COMMERCIAL CUSTOMER CLASS?

A. SDG&E is proposing that three rate schedules be classified as medium commercial: Schedule TOU-M, currently classified as small commercial, and schedules Electric Vehicle High Power (EV-HP) and OL-TOU, which are currently classified as M/L C&I. SDG&E is not proposing any changes to these rate schedules. Additionally, SDG&E is proposing to duplicate Schedules AL-TOU and DG-R for medium commercial customers and designating them as "AL-TOU-M" and "DG-R-M." According to SDG&E's filing, customers defaulted onto the medium commercial rate options would have the option to return to the large version of their rate schedule.[25] Also, medium commercial customers currently on legacy TOU versions of M/L C&I or small commercial rates would be defaulted onto a medium commercial rate that retains their legacy TOU periods.[26]

Q. WHEN DOES THE FLEXIBILITY ALLOWING MEDIUM CUSTOMERS TO RETURN TO THE LARGE C&I VERSION OF THE NEWLY CREATED MEDIUM COMMERCIAL RATE SCHEDULES EXPIRE?

A. SDG&E proposes a temporary, one-year, waiver of Electric Rule 1230 requirements for defaulted customers to allow for one additional rate change in the year following their default to the Medium Commercial Class.

Q. HOW MANY CUSTOMERS WOULD BE RECLASSIFIED AS MEDIUM COMMERCIAL CUSTOMERS?

A. According to SDG&E, approximately 13,000 accounts currently enrolled on a M/L C&I rate would be reclassified to medium commercial and defaulted their equivalent medium commercial rate schedule, and about 3,000 accounts would be reclassified from small

[25] A.23-01-008, SDG&E Revised Opening Testimony, Chapter 3, September 29, 2023, at 20.

[26] *Id*. at 21.

commercial to medium commercial. SDG&E states that AL-TOU and DG-R medium commercial customers would remain on the medium versions of those schedules with the same rates and customers currently on schedules TOU-M and OL-TOU would remain on their current schedules.

Q. WHAT IS THE COMMISSION PRECEDENT REGARDING THE 200 KW POINT OF DELINIATION BETWEEN MEDIUM AND LARGE C&I CUSTOMERS?

A. In its filing, SDG&E references a decision on a settlement reached in A.07-01-047 whereby reference to medium C&I customer included the qualifier of having 20 to 200 kW and reference to large C&I customers included the qualifier of having 200 kW or more.[27] As part of that settlement, parties agreed to split the C&I customers into three classes (20kW to 200kW, 200kW to 500kW, and over 500 kW) as it pertained to critical peak pricing. As part of that settlement, SDG&E also agreed to submit a class split study that would analyze the impact of splitting C&I customers into these classes.[28]

Q. WHAT ARE THE COMPONENTS OF SDG&E'S PROPOSED RATE DESIGN FOR THE NEWLY CREATED MEDIUM COMMERCIAL RATE SCHEDULES?

A. SDG&E proposes a distribution rate design for medium commercial rates that includes an MSF ($/month), a distribution demand charge ($/kW), and energy charges ($/kWh). The MSF charge recovers the customer cost portion of distribution revenues, differentiated by customer class and size. As discussed previously, SDG&E's MSF are estimated using the RECC method and applies EPMC scaling. The distribution demand charges recover distribution revenues associated with distribution demand costs and can be based on noncoincident peak demand or on-peak demand. SDG&E proposed default medium

[27] D.08-02-034, issued on February 28, 2008, at 17.

[28] *Id*. at 22.

commercial rate, AL-TOU-M will recover 25% of distribution demand costs in volumetric energy charges and 75% of distribution costs in distribution demand charges. AL-TOU-M customers will have a rate that is different from AL-TOU, which will retain 100% distribution cost recovery through MSFs and demand charges, and 0% recovered through volumetric rates. Schedules TOU-M and OL-TOU recover distribution demand costs through a volumetric energy rate that is equal between TOU periods and seasons. While Schedule DG-R-M recovers distribution demand costs through volumetric rates that vary between peak and off-peak periods. Energy charges are based on cumulative kWh consumption over a given billing period. SDG&E is not proposing changes to its current electric energy commodity cost recovery rate design for any of its proposed medium commercial rates.

Q. DOES SBUA SUPPORT SGD&E'S PROPOSAL TO SPLIT THE MEDIUM AND LARGE C&I CLASS INTO TWO DISTINCT RATE CLASSES?

A. Yes, under certain conditions. In principle, SBUA supports SDG&E proposal to split the M/L C&L rate classes into two distinct rate classes since this class is very diverse in many respects. However, SDG&E would have to make a series of changes to its proposed rate design for the new medium commercial class. 1.) SDG&E would have to recalculate MSFs using the NCO method without scaling as SBUA recommends for the small commercial class and discussed previously in this testimony. 2.) SBUA also recommends that SDG&E waive the distribution demand charges for the approximately 3,000 accounts that would be reclassified from the small commercial class to the medium commercial class.

SBUA recommends that these formally small commercial customers be exempt from the distribution demand charges proposed for the new medium commercial rate schedules because demand charges do not reflect the way that these small business customers impose costs on the system. Demand charges are based on the customer's

monthly non-coincident peak load, regardless of whether that load coincides with high-load, high-cost hours on the generation, transmission, or distribution systems. The cost of generation, transmission and most of the distribution system is not affected by customer maximum demand. The only costs that vary with customer maximum demand are cost associated with facilities dedicated to that customer, such as meters, service drops, and transformers. This is more typical for very large customers with local facilities that experience their peak loads when the customer's load peaks. Meanwhile, small commercial customers that are reclassified as medium commercial customers will be inappropriately and adversely affected by such charges.

Q. WHAT CHANGES IS CAL ADVOCATES PROPOSING TO MAKE IN MEDIUM COMMERCIAL RATES?

A. Cal Advocates recommend that the Commission require SDG&E to recover over/under-collections resulting from the Electric Vehicle High Power ("EV-HP") rate and the interim EV-HP rate waiver from the M/L customer classes only in lieu of recovering such over/under-collections from all customer classes.

Q. WHAT IS CAL ADVOCATES' RATIONALE FOR RECOMMENDING THAT OVER/UNDER COLLECTIONS FROM THE EV-HP RATE BE RECOVERED FROM M/L C&I CUSTOMERS?

A. Cal Advocates argue that SDG&E's proposal to recover such over/under-collections from all customer classes contradicts the joint proposal adopted by the Commission in D.20-12-023. Specifically, the Commission approved a joint stipulation to which SBUA was not a party. The Commission ordered SDG&E to track a revenue shortfall or surplus from the EV-HP rate and interim rate in a two-way balancing account and address any shortfall or surplus in its next GRC Phase 2 application.[29]

[29] D.20-12-023, issued on December 21, 2020, at 39.

Q. WHAT IS COMMISSION PRECENDENT REGARDING THE SOCIALIZATION OF EV-HP COSTS?

A. In the above referenced order, the Commission states that "Rates should be based on marginal costs and generally avoid cross-subsidies, unless the cross-subsidies appropriately support explicit state policy goals."[30] The same decision, references Senate Bill ("SB") 350, the Clean Energy and Pollution Reduction Act (Chapter 547, Statutes of 2015), that established new greenhouse gas reduction goals for California and declared that widespread transportation electrification would be required to meet these goals and meet air quality standards.[31] On September 23, 2020, Governor Gavin Newsom issued Executive Order ("EO") N-79-20 requiring all in-state sales of new light-duty vehicles be zero-emission by 2035, and establishes the goals that 100% of medium and heavy duty vehicles in California be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks. This same decision also states that EO N-79-20 also directs the Commission to use its existing authority to accelerate deployment of affordable fueling and charging options for zero-emissions vehicle in ways that serve all communities.[32]

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE SOCIALIZATION OF EV-HP COSTS?

A. The intent of SB 350 and EO N-79-20 are explicit in the goal to reduce carbon emissions via vehicle electrification for the benefit of all Californians. Therefore, all ratepayers should share the burden or benefit of any over/under-collections resulting from the EV-HP

[30] D.20-12-023, issued on December 21, 2020, at 8.

[31] *Id*. at 6.

[32] *Id*. at 7.

and interim EV-HP rates. SBUA believes that the Commission should approve SDG&E's proposal to socialize such overages or under collections across all customer classes.

C. SDG&E'S PROPOSAL TO UPDATE ITS EXISTING STANDARD TIME-OF-USE PERIODS TO INCLUDE ADDITIONAL SUPER-OFF PEAK PERIOD HOURS

Q. WHAT IS SDG&E PROPSING REGARDING CHANGES TO ITS EXISTING STANDARD TIME-OF-USE PERIOD HOURS?

A. According to SDG&E, it is proposing to update its existing standard time-of-use ("TOU") periods to include additional super off-peak periods to better reflect cost-causation, encourage customers to shift energy consumption to daytime hours, and provide more opportunities for customers to shift load into the super off-peak period at lower prices. Specifically, SDG&E is proposing to extend its current super off-peak to an additional four hours during the middle of the day year-round in lieu of just during March and April.[33] SDG&E is also proposing non legacy period for customers on current standard TOU periods, because the proposed change to TOU periods does not include a change in the on-peak period.[34] According to SDG&E, these changes will better reflect cost causation, encourage shifting electricity use to daytime hours, and reduce GHG emissions.

Q. WHAT IS SDG&E'S CURRENT PERIODS FOR TOU PRICING?

A. The time periods are very similar throughout the year, except for longer super off-peak periods on the weekend and four extra supper off-peak hours during the weekdays in March and April. Specifically, the current on-peak period throughout the year during weekdays,

[33] A.23-01-008, SDG&E Revised Opening Testimony, Chapter 1, September 29, 2023, at SP-12-SP-14.

[34] *Id*.

weekends, and holidays from 4:00 pm to 9:00 pm. Off-peak periods throughout the year are from 6:00 am to 4:00 pm and from 9:00 pm to midnight. The current weekday super off-peak TOU period is midnight to 6:00 am and 10:00 am to 2:00 pm during the months of March and April only. According to SDG&E, the results of their Loss of Load Expectation ("LOLE") analysis and Deadband Tolerance analysis supports its proposed extension of the super off-peak period of 10:00 am to 2:00 pm beyond March and April to all months.[35]

Q. DID SDG&E SELECT APPROPRIATE TOU PERIODS?

A. With the exception of extending the super off-peak period discussed previously, it seems as though SDG&E is proposing the same TOU periods as it proposed in its last general rate case. However, evidence provided by Cal Advocates shows that there exist relatively high average hourly marginal generation costs hours during the currently defined off-peak period from 6:00 am to 10:00 am. Cal Advocates' analysis also shows that shifting the current evening on-peak period of 4:00 pm to 9:00 pm to a new period of 5:00 pm to 10:00 pm is justified. Since SDG&E is not proposing an adjustment to its off-peak and on-peak periods, it is denying ratepayers the incentive to reduce energy use during high-cost periods.

Q. DID SDG&E MEET THE CONDITIONS MANDATED IN THE SETTLEMENT REACHED IN A.19-03-002?

A. Yes and no. Section 2.2.19 of the Settlement Agreement in A.19-03-002 states that "Consistent with the requirements of D.17.01-006 (at p. 84, Appendix 1), SDG&E will include in its next GRC Phase 2 an analysis of base TOU periods. If warranted, SDG&E will propose new base TOU periods as required at least every two GRC cycles, with base TOU periods developed using a forecast year that is at least three years after the base TOU

[35] A.23-01-008, SDG&E Revised Opening Testimony, Chapter 5, September 29, 2023, at JDT-1-JDT-2.

periods will go into effect."[36] SDG&E proposes extending the super off-peak TOU period to all months, however, it failed to consider adjustments to other TOU periods.

Q. WHAT WAS CAL ADVOCATES RECOMMENDATION?

A. Cal Advocates does not oppose SDG&E's proposed TOU periods at this time.[37] Cal Advocates state that an expected year-round midday super off-peak period is less complex than the current off-peak period and offers more opportunities to shift electricity consumption to the lower cost, super off-peak period.

Q. HOW DID CAL ADVOCATES REACH THEIR RECOMMENDATION TO THE COMMISSION TO ACCEPT SDG&E'S PROPSAL TO EXTEND THE SUPER OFF-PEAK PERIOD TO ALL MONTHS?

A. Cal Advocates conducted their analysis using marginal energy costs ("MEC") and marginal generation capacity costs ("MGCC"), based on guidance adopted by the Commission in D.17-01-006. Cal Advocates developed an hourly profile of MEC and MGCC and used MGCC to develop a heat map. According to Cal Advocates, the heat map shows that expanding the super off-peak period to all months will capture more midday low-cost hours than the current super off-peak period during March and April. Cal Advocates admit that their heat map also shows relatively high hourly prices during the morning hours but does not recommend expanding the peak period to avoid customer confusion.[38]

Q. PLEASE ELABORATE ON CAL ADVOCATES FINDING OF RELATIVIELY HIGH HOURLY PRICES DURING THE MORNING HOURS.

A. Cal Advocates found relatively high values of average hourly marginal generation costs during the morning hours between 6:00 am and 10:00 am, which is during the currently

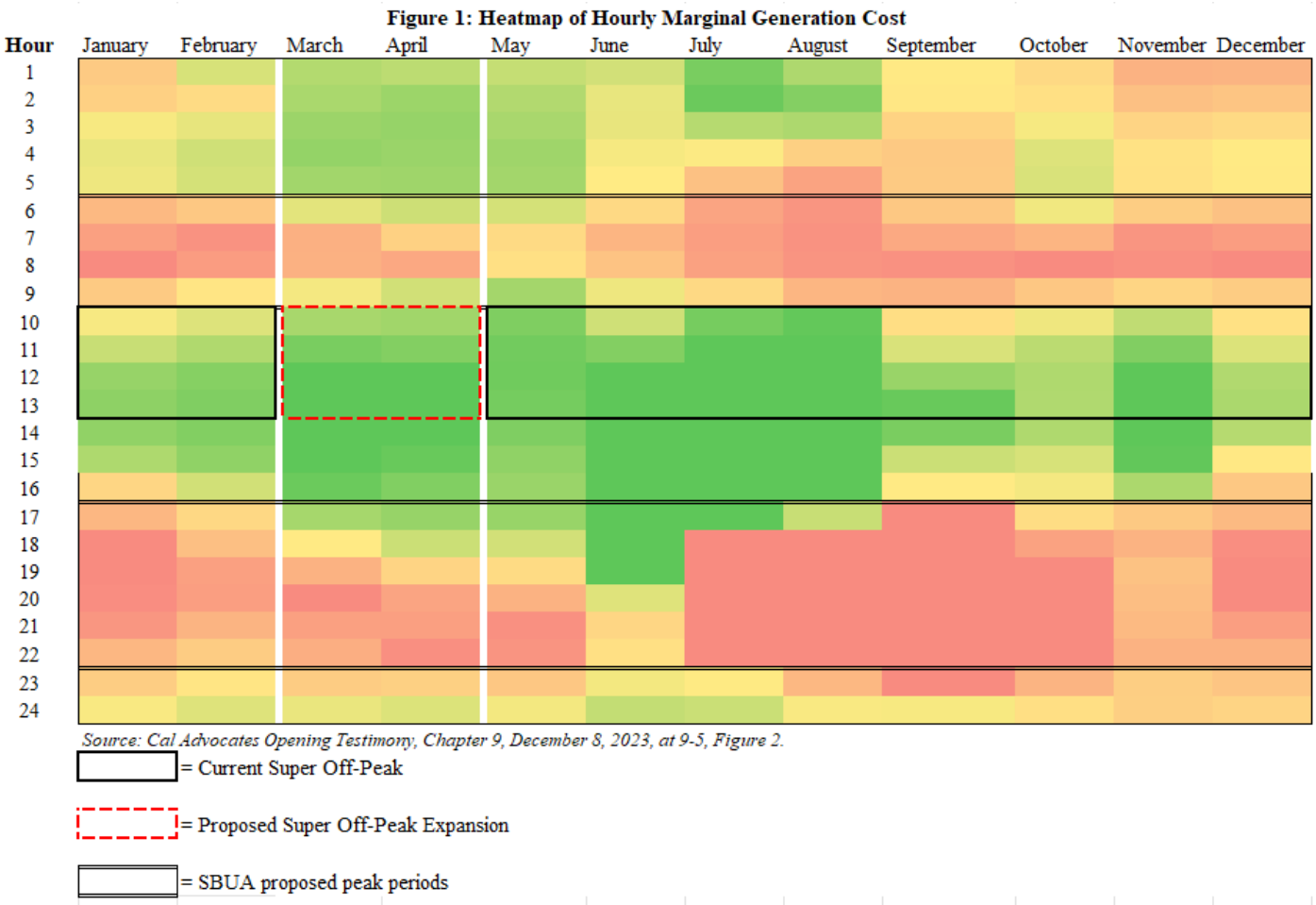
[36] D.21-07-010, issued July 16, 2021, Appendix B, at 17-18.

[37] A.23-01-008, Public Advocates Office, Opening Testimony, Chapter 9, December 8, 2023, at 9-2.

[38] *Id*. at 9-4.

established off peak period. Figure 1 below shows the heatmap of hourly marginal generation costs provided by Cal Advocates. Actual values are not shown since they are confidential. However, the time periods in red indicate periods during which average hourly marginal generation costs are relatively high.

Figure 1: Heatmap of Hourly Marginal Generation Cost



Source: Cal Advocates Opening Testimony, Chapter 9, December 8, 2023, at 9-5, Figure 2.

Q. WHAT OTHER RECOMMENDATION DOES CAL ADVOCATES MAKE REGARDING TOU PERIODS?

A. Cal Advocated also recommend the Commission adopt SDG&E's proposal to retain its 4:00 pm to 9:00 pm on-peak period.

Q. HOW DID CAL ADVOCATES REACH THAT CONCLUSION?

A. Cal Advocates provides a heat map detailing the distribution of hourly loss of load probability ("LOLP") provided by SDG&E. Cal Advocates find that the current TOU periods are reasonable because they align with the hours of relative capacity need.[39]

Q. DOES SDG&E'S RECOMMENDED TOU PERIODS MEET COMMISSION GUIDELINES?

A. Yes and No. Although SDG&E is proposing to extend its super off-peak period of 10:00 am to 2:00 pm to all months, evidence provided by Cal Advocates shows that adjustments to its other TOU periods are necessary. SDG&E's proposal to retain its current 4:00 pm to 9:00 pm on-peak period is not supported by the analysis discussed above. Also, the Commission ruled in D.17-01-006 that "TOU peak periods have shifted to later in the day, several hours beyond the time of maximum solar production, suggesting the need for co-located solar generation and storage to provide the best configuration to maximize energy supply during periods of peak energy use on the grid."[40]

Q. WHAT ARE SBUA'S RECOMMENDATIONS REGARDING TOU PERIODS?

A. SBUA recommends that the Commission adopt the following:

1. SDG&E's proposed extension of its super off-peak period of 10:00 am - 2:00 pm to all months of the year.
2. A new morning on-peak period of 6:00 am - 10:00 am.
3. Shift the current evening on-peak period of 4:00 pm - 9:00 pm to 5:00 pm - 10:00 pm.
4. All remaining hours are off-peak.

[39] A.23-01-008, Public Advocates Office, Opening Testimony, Chapter 9, December 8, 2023, at 9-6.

[40] D. 17-01-006, issued January 23, 2017, Findings of Fact, at 70-76.

SBUA Table 3: Comparison of Proposed Time of Use Periods

	SDG&E Proposed Standard TOU Periods		SBUA's Proposed Standard TOU Periods	
	Weekdays	Weekends/Holidays	Weekdays	Weekends/Holidays
Summer				
On Peak	4pm-9pm	4pm-9pm	6am-10am	
			5pm-10pm	5pm-10pm
	6am-10am	2pm-4pm	2pm-5pm	2pm-5pm
Off Peak	2pm-4pm	9pm-midnight	10pm-midnight	10pm-midnight
	9pm-midnight			
Super Off Peak	midnight-6am	midnight-2pm	10am-2pm	
	10am-2pm		midnight-6am	midnight-2pm
Winter				
On Peak	4pm-9pm	4pm-9pm	6am-10am	
			5pm-10pm	5pm-10pm
	6am-10am	2pm-4pm	2pm-5pm	2pm-5pm
Off Peak	2pm-4pm	9pm-midnight	9pm-midnight	9pm-midnight
	9pm-midnight			
Super Off Peak	midnight-6am	midnight-2pm	midnight-6am	midnight-2pm
	10am-2pm		10am-2pm	

D. SDG&E'S PROPOSAL TO MAINTAIN CURRENT TOU DIFFERENTIALS FOR ALL CUSTOMER CLASSES

Q. WHAT IS SDG&E'S PROPOSAL TO MAINTAIN CURRENT TOU DIFFERENTIALS?

A. SDG&E is proposing to maintain its January 1, 2023 effective base commodity rates across all classes despite evidence showing that it 2024 GRC Phase 2 commodity cost study results in significantly more muted TOU differentials.[41]

[41] A.23-01-008, SDG&E Revised Opening Testimony, Chapter 1, September 29, 2023, at SP-18: Figure SP-3.

SBUA Table 4: Comparing Current Base Commodity Rates vs. Base Commodity Rates Using the 2024 Commodity Cost Study

TOU-DRI	1/1/2023	2024 Commodity Cost Study	Difference
Base Commodity Rates	**cents/kWh**	**cents/kWh**	**%**
Summer			
On-Peak	57	26.7	-53%
Off-Peak	25.6	12.1	-53%
Super Off-Peak	9.2	9.9	8%
Winter			
On-Peak	19.2	16.5	-14%
Off-Peak	10.8	12.4	15%
Super Off-Peak	8.3	10.5	27%
Summer Differentials			
On: Super Off-Peak	6.2	2.7	-56%
On: Off-Peak	2.2	2.2	0%
Winter Differentials:			
On: Super Off-Peak	2.3	1.6	-30%
On: Off-Peak	1.8	1.3	-28%

Source: A. 23-01-008 SDG&E Chapter 1, September 29, 2023, at SP-18, Figure SP-3

Q. WHY DOES SDG&E PROPOSE TO MAINTAIN CURRENT TOU DIFFERENTIALS?

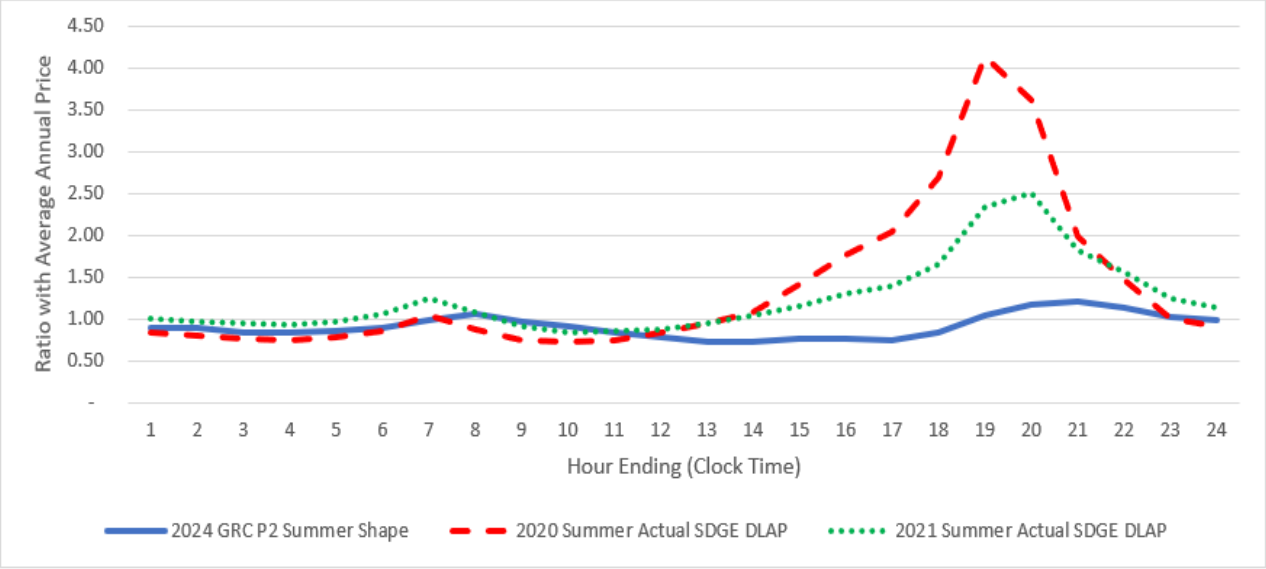
A. Although SDG&E forecasts additional capacity resources added to its service territory by 2024, consistent with the Integrated Resource Plan ("IRP") and less need of a response from customers to shift load outside the on-peak period, SDG&E states that using these forecasted assumptions result in significantly lower "cost-based" TOU differentials create a drastic change from current price differentials observed in the market. Specifically, many of the resources forecasted to come online are battery storage facilities that could provide capacity during peak periods when costs are at their highest. However, SDG&E observed extreme market price spikes in the peak hours relative to the off and super-off-peak hours during the summer in 2020, 2021, and 2022. SDG&E also avers that flattening TOU

differentials, especially in the summer months, could have unintended consequence of muting a necessary price signal and discourage customer demand response during these high price periods.

Q. PLEASE ELABORATE ON SDG&E'S OBSERVATION THAT THERE HAVE BEEN EXTREME MARKET PRICE SPIKES IN PEAK HOURS IN 2020, 2021, AND 2022.

A. In Figure SP-4 of its filing, SDG&E shows spikes in the average summer Default Load Aggregation Point ("DLAP") prices during on-peak period hours. While such price spikes are prominent in 2020, 2021 price spikes are lower. The same figure also shows relatively flat prices during the same period for 2024. According to SDG&E, it is premature to make changes to the TOU price differentials based on the 2024 forecasted muted prices because there is no observable market data.

Figure 2: Summer Weekday Average Hourly Shape



Source: SDG&E Revised Opening Testimony, Chapter 5, September 29, 2023, Figure SP-4

Q. DID SDG&E PROVIDE 2022 DLAP PRICE INFORMATION IN ITS FILING?

A. No. Although SDG&E's filing mentions extreme market price spikes in the peak hours of 2022, such data is not provided within its confidential Chapter 5 marginal generation commodity cost workpapers.

Q. DO YOU AGREE WITH SDG&E PROPOSAL TO MAINTAIN CURRENT TOU DIFFERENTIALS?

A. No. SDG&E is basically saying that despite current forecasted information, it would rather maintain TOU differentials set in its last general rate case. However, given the lack of available market data to validate SDG&E's forecasts is problematic. Thus, SBUA will continue to monitor market data and reserves the right to change this recommendation in rebuttal testimony should new data through responses to discovery requests merit further revisions to the TOU differentials.

IV. <u>CONCLUSION AND RECOMMENDATIONS</u>

Q. THROUGH WHAT FRAMEWORK SHOULD THE CPUC CONSIDER SDG&E'S PROPOSALS?

A. Most proceedings before public utility commissions revolve around the question set established in *Bluefield Water Works v. Public Service Commission*, 262 U.S. 679, 692-93 (1923) and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 605 (1944). In *Bluefield* and *Hope*, the U.S. Supreme Court established the principle that a public utility may be allowed to earn a return comparable to a return on investments in other enterprises having similar risks that allow the utility, under efficient management, to maintain financial integrity, the opportunity to attract capital on reasonable terms, and to maintain a satisfactory credit rating. However, utility regulation should not happen in a

vacuum. While the utility should have the opportunity to earn a fair return, the potential impacts on ratepayers should be the primary consideration. In this case, SBUA advocates for special consideration to the potential impacts on small businesses, which are the economic engine of the California economy. Failure to provide appropriate consideration to the interests of small businesses could have disastrous economic impacts. Small businesses often operate on small profit margins, so large increases in electric rates, as reflected in the proposed increases in Monthly Service Fees, would be unsustainable for many small businesses. Because half of California residents are employed by small businesses, the CPUC must consider the potential economic impacts of its decision in this proceeding. SBUA strongly supports responsible environmental stewardship and the transition to a clean energy future, but these objectives should not be realized at the expense of small businesses. Indeed, this proceeding should be used to further California's clean energy objectives by providing small businesses with the incentives and tools to manage their energy expenditures by responding to price signals. By empowering small businesses rather than burdening them with disproportionate economic burdens, small businesses could become the engine by which California realized its clean energy and environmental objectives.

Q. SHOULD THE CPUC ADOPT SDG&E'S PROPOSAL WITH RESPECT TO MONTHLY SERVICE FEES?

A. No. The proposed increases in MSFs are excessive and will impose an unacceptable burden on small businesses. SBUA recommends that the CPUC request SDG&E to adopt MSFs using the NCO method without EPMC scaling.

Q. SHOULD THE CPUC ADOPT SDG&E'S PROPOSAL WITH RESPECT TO SPLITTING THE M/L C&I CLASS?

A. Yes, under certain conditions. SDG&E should waive distribution demand charges for formally considered small commercial customers. SDG&E should also adopt MSFs using the NCO without EPMC scaling for the newly assigned medium commercial customers.

Q. SHOULD THE CPUC ADOPT SDG&E'S PROPOSAL WITH RESPECT TO TOU PERIODS?

A. Yes. The CPUC should adopt SDG&E's proposal to extend its super off-peak period to all months of the year. However, evidence presented by Cal Advocates shows that the Commission should also require SDG&E to offer a new on peak period in the morning and shift the evening peak period to match high-cost hours.

Q. SHOULD THE CPUC ADOPT SDG&E'S PROPOSAL WITH RESPECT TO TOU DIFFERENTIALS ACROSS ALL CUSTOMER CLASSES?

A. Yes. However, the SBUA reserves the right to alter its recommendation on TOU differentials in rebuttal testimony as more market data becomes available through outstanding responses to data requests.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does; although I reserve the right to update my recommendations if new information becomes available.

ATTACHMENT A: CURRICULUM VITAE AND QUALIFICATIONS

Maureen L. Reno

Maureen Reno is a seasoned expert with over 20 years of experience in the field of public utility regulation. After she completed her Ph.D. studies in Economics at the University of New Hampshire, Ms. Reno launched her career in public utility regulation as a utility analyst and program manager at the New Hampshire Public Utilities Commission, where she worked for the next 10 years. In this capacity, she provided expert testimony on rate of return (to include return on equity) in electricity, natural gas, and water utility rate cases. Ms. Reno also led the development and implementation of New Hampshire's Renewable Portfolio Standard program, helping both owners of distributed generation and load serving entities meet compliance requirements and maneuver the dynamic wholesale energy and renewable energy certificate markets. In addition, she managed New Hampshire's participation in the Regional Greenhouse Gas Initiative. Finally, Ms. Reno served as an expert witness on financial issues regarding the regulation of electric, natural gas, and water utilities, to include cost of capital and return on shareholder equity.

Subsequently, Ms. Reno served as a Senior Energy Economist with the Union of Concerned Scientists. In this capacity, she developed clean energy financing policies and advocated for electricity sector solutions to global warming.

Since 2012, Ms. Reno has served as an independent consultant, working with other small businesses to advise government and industry clients on diverse utility-related matters. In addition, she has served as an expert witness on rate design and rate of return (to include return on equity) in numerous cases. Her testimony has been presented to public utility commissions across the United States, to include the Arizona Corporation Commission, Georgia Public Service Commission, Missouri Public Service Commission, the New Mexico Public Regulation Commission, the Oklahoma Corporation Commission, and the Texas Public Utility Commission. Ms. Reno's testimony has been consistently accepted by public utility commissions.

Ms. Reno stays abreast of the latest developments in utility regulatory law and policy through her research and professional activities. Given the complexity of Federal and state regulations that affect her clients, Ms. Reno dedicates significant time and energy to reviewing regulatory developments enacted by the U.S. Department of Energy, the Federal Energy Regulatory Commission (FERC), and the U.S. Environmental Protection Agency. For instance, Ms. Reno recently evaluated Maryland's RPS in light of FERC rulings on PJM's Capacity Auction to assess the financial viability of renewable energy projects within Maryland.

EDUCATION

- Completed all course work and exam requirements towards a Doctorate of Philosophy in Economics – University of New Hampshire, Durham.
  Fields of Specialization: Industrial Organization and Environmental Economics
- Master of Arts in Economics – University of New Hampshire, Durham, 1998
- Bachelor of Arts in Economics – University of Maine, Orono, 1996

PROFESSIONAL EXPERIENCE

- Independent Consultant and Principal, Reno Energy Consulting Services, LLC (2016-Present)
- Rates and Market Policy Director, New Hampshire Office of the Consumer Advocate (2021-2022)
- Independent Consultant (2012-2016)
- Senior Energy Economist, Union of Concerned Scientists (2011-2012)
- Analyst, Program Manager, Utility Analyst, and Economist, New Hampshire Public Utilities Commission (2001-2011)
- Survey Manager, New Hampshire Small Business Development Center (1999-2001)
- Adjunct Instructor, University of New Hampshire (1999-2001)

PROFESSIONAL WORK

As an independent consultant (as a prime contractor with Reno Energy Consulting Services, LLC and subcontractor under Exeter Associates, TahoEconomics, and Nordee Enterprise LLC), Ms. Reno:

- Reviewed, analyzed, and prepared oral and written testimony in 14 electric and two water utility rate cases on topics that include rate design (revenue decoupling mechanisms); rate of return (including return on equity, capital structure, and accounting adjustments), and mergers and acquisitions.

- Worked with solar power installer to assess return on investment and payback period for investments in energy storage that included analyzing customer load profiles, utility tariffs, tax credits, and potential revenues from wholesale markets and state programs.

- Prepared report that included assessment of electricity options and projected revenues and costs for the Army & Air Force Exchange Service's West Coast Distribution Center, which included analyzing Pacific Gas & Electric Company's tariffs and potential revenues from wholesale markets for investments in solar power and energy storage.

As the Rates and Market Policy Director at the New Hampshire Office of the Consumer Advocate, Ms. Reno:

- Reviewed and analyzed utility filings and prepared written recommendations in two natural gas utility proceedings pertaining to a revenue decoupling adjustment mechanism and a renewable natural gas contract.

- Reviewed and analyzed utility filings and provided oral testimony in an electric utility's electric vehicle make-ready program and proposed tariff rates.

- Reviewed, analyzed and prepared oral and written recommendations for the Consumer Advocate on utility requests for changes in energy service rate charges (electric default service and cost of gas) and other surcharges reflected in utility company tariffs.

As an independent consultant for Exeter Associates Inc., Ms. Reno:

- Preparing the financial analysis and ratepayer impacts of a long-term contract requirement under Maryland's RPS for the Power Plant Research Program (PPRP) on behalf of the Maryland Department of Natural Resources.

  Evaluated utility proposals for deployment, cost-benefit analysis, and cost recovery of Maryland's Statewide Electric Vehicle Portfolio on behalf of the Maryland Energy Administration through the PPRP in Case No. 9478 In the Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio.

- Conducted research and drafted sections of regional energy market operations manuals for the US Department of Energy's Federal Energy Management Program. The reports focused on how federal facilities were pursuing renewable energy development under the different market constructs, such as by vertically integrated electric utilities, electric utilities with the PJM footprint, and electric utilities in California, and how those market constructs affected the prospects for future renewable energy development.

As an independent consultant for TAHOEconomics LLC, Ms. Reno:

- Provided written and oral testimony and legal briefs on behalf of the City of Clovis, New Mexico, in a water utility rate cases before the New Mexico Public Regulation Commission. Assessed EPCOR Water New Mexico Inc.'s weighted average cost of capital and estimated the rate of return on equity using discounted cash flow, risk premium, and capital asset pricing models.

As an independent consultant for Stephenson Strategic Communications, LLC, Ms. Reno:

- Provided consulting services to build support in New Hampshire for strong national climate and energy policies on behalf of a nationally recognized, non-profit environmental organization.
- Mobilized experts and leaders in New Hampshire to engage elected federal, state and local officials through targeted Senator visits, media interviews, public events, letters to the editor, and opinion and editorial articles.
- Communicated directly with targeted legislators and their staff to determine their positions on climate and clean air policies and address their concerns.

As an independent consultant for TrueLight Energy, LLC, Ms. Reno:

- Acted as director of regulatory affairs to expand upon current services to provide clients with guidance on how to navigate the dynamic deregulated electricity industry.
- Developed regulatory service product for clients, which includes ISO/utility tariff tracking and rate impact analysis, policy analysis, new market identification and participation in regulatory processes.
- Identified and originated new commercial opportunities in the U.S. to support principle product/service lines: retail supplier solutions; generation asset management; and sustainability management solutions for large energy users.
- Developed and implemented business development and business-to-business marketing strategies in coordination with senior management.

As a senior economist at the Union of Concerned Scientists, Ms. Reno:

- Promoted the development of clean energy technologies and policies in the electricity sector. Designed and evaluated energy policies at the state, regional, and national levels to maximize economic benefits and overcome market barriers to renewable energy.
- Evaluated and developed alternative financial policies to national and state renewable energy standards. Completed internal documents and research focusing on master limited partnerships and real estate investment trusts as possible sources of financing capital for renewable energy projects.
- Informed and enhanced coalition strategies by evaluating and developing appropriate responses to federal policy opportunities, including a low-carbon electricity standard, production tax credit, and other emerging opportunities.

- Evaluated the net benefits and opportunities for economic development in renewable energy manufacturing and the supply chain.

As an analyst and program manager at the New Hampshire Public Utilities Commission, Ms. Reno:

- Developed and managed New Hampshire's RPS Program.
- Developed internal protocols for managing New Hampshire's RPS program pursuant to PUC's RPS program rules (N.H. Code of Administrative Rules PUC 2500), including designing resource eligibility application forms.
- Verified electricity providers' compliance with New Hampshire's RPS program and processed applications for renewable energy source eligibility.
- Prepared and submitted annual RPS compliance reports, including program evaluation and policy analysis, to the State legislature on behalf of the PUC.
- Monitored and forecasted renewable energy certificate market trends in New England and New Hampshire to estimate available revenues supporting rebate programs.
- Maintained an RPS program website and renewable energy sources database.
- Participated in various regional working groups, including the RGGI Allowance and Offset Market Groups, and the GIS Regulators' Caucus to develop and maintain the NEPOOL GIS Operating Rules.
- Developed Greenhouse Gas Emissions Reduction Fund Cost Effectiveness Analysis model for request for proposal applicants.

As a utility analyst and economist at the New Hampshire Public Utilities Commission, Ms. Reno:

- Reviewed, analyzed and prepared oral and written recommendations in eight electric, natural gas and water utility rate cases in which she calculated each company's weighted average cost of capital and estimated the rate of return on equity using discounted cash flow, risk premium, and capital asset pricing models.
- Advised the PUC on utilities' debt financings, bond issuances, power plant retrofit, advanced/net metering, demand response, environmental disclosure, and incentives for in-state energy efficiency programs.
- Collaborated on behalf of the PUC with public and private entities to write New Hampshire's RPS law (HB 873), state participation in RGGI (HB 1434) and the PUC's RPS program rules (N.H. Code of Administrative Rules Puc 2500).

- Advised the Commissioners on the development of the RGGI carbon dioxide emission limits and the Allowance Auction Market.

- Prepared fiscal impact statements regarding proposed legislation and regulations in the State of New Hampshire using cost-benefit analysis.

As a Survey Manager for the New Hampshire Small Business Development Center, Ms. Reno:

- Designed and distributed a survey to collect data on the characteristics of New Hampshire manufacturers.

- Managed collection of survey data, designed a database for the data collected and oversaw data entry efforts.

- Analyzed the economic and behavioral factors that lead to the growth of New Hampshire manufacturing companies using multivariate regression, factor and cluster analysis of survey data.

As an Adjunct Instructor for the University of New Hampshire, Ms. Reno:

- Taught undergraduate courses in Principles of Macroeconomics and Microeconomics, including lectured on a daily basis, and developed lesson plans and teaching materials.
- Managed teaching assistant’s work correcting and grading testing materials and writing assignments.

UTILITY LITIGATION

State	Client	Citation/Utility	Industry	Topics
Kansas	U.S. Department of Defense (DoD)	23-EKCE-775-RTS/Evergy Kansas	Electric	Cost of Capital and Return on Equity
Delaware	Public Service Commission Staff	22-0897/Delmarva Power & Light	Electric	Cost of Capital and Return on Equity
Texas	U.S. Department of Energy (DOE)	54634/ Southwestern Public Service Company	Electric	Cost of Capital, Return on Equity, and Rate Design Impacts on Risk
New Mexico	Bernalillo County (BC)	22-00270-UT/ Public Service Co. of New Mexico	Electric	Cost of Capital, Return on Equity, and Rate Design Impacts on Risk
North Carolina	(DoD)	E-2, SUB 1300/ Duke Energy Progress, LLC	Electric	Cost of Capital, Return on Equity, and Rate Design Impacts on Risk
Georgia	DoD	44280/ Georgia Power Company	Electric	Cost of Capital, Return on Equity, and Rate Design Impacts on Risk
Texas	DoD	53601/ Oncor Electric Delivery Company	Electric	Cost of Capital and Return on Equity
New Hampshire	Office of the Consumer Advocate (OCA)	DE 21-078/ Eversource	Electric	Electric Vehicle Make-Ready and Demand Charge Alternative
Alaska	DoD	U-21-070/U-21-071/ Golden Heart Utilities, Inc. and College Utilities Corporation	Water, Wastewater	Cost of Capital and Return on Equity
New Hampshire	OCA	DG 21-104/ Northern Utilities, Inc.	Natural Gas	Rate Design: Revenue Decoupling Adjustment Mechanism and Impacts on Risk
New Hampshire	OCA	DG 21-036/ Liberty Utilities	Natural Gas	Cost-Effectiveness of a Renewable NG Supply Agreement

Texas	DoD	52195/ El Paso Electric Company	Electric	Cost of Capital and Return on Equity
New Mexico	BC	20-00222-UT/ Public Service Co. of New Mexico	Electric	Mergers & Acquisitions: Benefits and Risks
New Mexico	BC	20-00121-UT/ Public Service Co. of New Mexico	Electric	Rate Design: Decoupling Mechanism
New Mexico	Public Regulation Commission Staff	19-00170-UT/ Southwestern Public Service Company	Electric	Cost of Capital and Return on Equity
Georgia	DoD	42516/ Georgia Power Company	Electric	Cost of Capital, Return on Equity, and Rate Design Impacts on Risk
Arizona	DoD	E-01933A-19-0028/ Tucson Electric Power Company	Electric	Cost of Capital and Return on Equity
New Mexico	City of Clovis, NM	18-00124-UT/ EPCOR Water New Mexico Inc.	Water	Cost of Capital and Return on Equity
Oklahoma	DoD	PUD 201700151/ Public Service Co. of Oklahoma	Electric	Cost of Capital and Return on Equity
Oklahoma	DoD	PUD 201500208/ Public Service Co. of Oklahoma	Electric	Cost of Capital, Return on Equity, and Rate Design Impacts on Risk
Texas	DOE	43695/ Southwestern Public Service Company	Electric	Cost of Capital and Return on Equity
Missouri	DOE	ER-2014-0370/ Kansas City Power & Light Co.	Electric	Cost of Capital and Return on Equity
Texas	DOE	41791/ Entergy Texas, Inc.	Electric	Cost of Capital and Return on Equity
New Hampshire	Public Utilities Commission Staff (PUC)	DE 05-178/ Unitil Energy Systems, Inc.	Electric	Cost of Capital and Return on Equity
New Hampshire	PUC	DE 04-177/ Public Service Co. of New Hampshire (generation assets)	Electric	Cost of Capital and Return on Equity
New Hampshire	PUC	DW 04-056/ Pennichuck Water Works, Inc.	Water	Cost of Capital and Return on Equity
New Hampshire	PUC	DE 03-200/ Public Service Co. of New Hampshire	Electric	Cost of Capital and Return on Equity

New Hampshire	PUC	DE 03-166/ Public Service Co. of New Hampshire	Electric	Financial Incentives Associated with a Power Plant Retrofit from Coal to Biomass
New Hampshire	PUC	DE 01-247/ Concord Electric Co. and Exeter & Hampton Electric Co.	Electric	Cost of Capital and Return on Equity
New Hampshire	PUC	DE 01-168/ Public Service Co. of New Hampshire	Electric	Refinancing of Long-term Debt, Short-term Debt Limit, and Utilization of Derivative Instruments
New Hampshire	PUC	DG 01-182/ Northern Utilities, Inc.	Natural Gas	Cost of Capital and Return on Equity
New Hampshire	PUC	DW 01-081/ Pennichuck Water Works, Inc.	Water	Cost of Capital and Return on Equity

UTILITY-RELATED MATTERS

State	Client	Description
New Hampshire & Massachusetts	Nordee Enterprise LLC	Worked with solar power installer to assess return on investment and payback period for investments in energy storage that included analyzing customer load profiles, utility tariffs, tax credits, and potential revenues from wholesale markets and state programs.
New Hampshire	Office of the Consumer Advocate (OCA)	Negotiated Settlement terms in DE 21-119 Eversource Energy's Proposed Tariff Amendment to Residential Time-of-Day Rate
New Hampshire	OCA	Negotiated Settlement terms in DE 20-170 Electric Distribution Utilities' Electric Vehicle Time of Use Rates
New Hampshire	OCA	Evaluated utility proposal and ratepayer impacts of Liberty Utilities cost of gas proposal in DG 21-130 (EnergyNorth Natural Gas) and DG 21-132 (Liberty-Keene Division)
New Hampshire	OCA	Evaluated Liberty Utilities' Firm Transportation Agreement with Tennessee Gas Pipeline Company LLC in DG 21-008
Maryland	Department of Natural Resources (DNR)	Prepared the financial analysis and ratepayer impacts of a long-term contract requirement under Maryland's RPS. The report titled "Final Report Concerning the Maryland Renewable Portfolio Standard as Required by Chapter 393 of the Acts of the Maryland General Assembly of 2017" was publicly released in December 2019.
Maryland	Energy Administration (EA)	Evaluated utility proposals for deployment, cost-benefit analysis, and cost recovery of Maryland's Statewide Electric Vehicle Portfolio in Case No. 9478 In the Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio.
Federal	US Department of Energy (DOE)	Conducted research and drafted sections of regional energy market operations manuals for the US Department of Energy's Federal Energy

		Management Program. The reports focused on how federal facilities were pursuing renewable energy development under different market constructs, such as by vertically integrated electric utilities, electric utilities with the PJM footprint, and electric utilities in California.
New Hampshire	Derry Town Council	Oversaw town energy committee's involvement in various energy cost saving projects or initiatives, such as installing a large solar array on the town's landfill, updating streetlights with LED fixtures, building a new transfer station that meets LEED certification, installing an electric vehicle charging station downtown, and hosting/managing resident participation in two Solar Up campaigns.
New Hampshire	Derry Town Council	Advised town council on establishing the Derry Net Zero Task Force and town goal of becoming Net Zero by 2025.
Massachusetts	Union of Concerned Scientists (UCS)	Evaluated and developed alternative financial policies to national and state renewable energy standards. Completed internal documents and research focusing on master limited partnerships and real estate investment trusts as possible sources of financing capital for renewable energy projects.
Massachusetts	UCS	Manufacturing Supply Chain Analysis of Wind Power Systems
New Hampshire	Public Utilities Commission (PUC)	Developed internal protocols for managing New Hampshire's RPS program pursuant to NHPUC's RPS program rules (N.H. Code of Administrative Rules PUC 2500), including designing resource eligibility application forms.
New Hampshire	PUC	Verified electricity providers' compliance with New Hampshire's RPS program and processed applications for renewable energy source eligibility.
New Hampshire	PUC	Prepared and submitted annual RPS compliance reports to the State legislature on behalf of the NHPUC.

New Hampshire	PUC	Developed Greenhouse Gas Emissions Reduction Fund Cost Effectiveness Analysis model for grant proposals.
New Hampshire	PUC	Collaborated on behalf of the NHPUC with public and private entities to write New Hampshire's RPS law (HB 873), law concerning state participation in Regional Greenhouse Gas Initiative (RGGI) (HB 1434) and the NHPUC's RPS program rules (N.H. Code of Administrative Rules Puc 2500).
New Hampshire	PUC	Advised the Commissioners on the development of the RGGI carbon dioxide emission limits and the RGGI Allowance Auction Market.
New Hampshire	PUC	Assisted researchers at the University of New Hampshire in estimating the net benefits of New Hampshire's RPS and its participation in RGGI for the state legislature.