

Company: San Diego Gas & Electric Company
Application: 17-09-_____
Exhibit No.: SDG&E-_____

PREPARED TESTIMONY OF

PAUL PRUSCHKI

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

CHAPTER 2

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

SEPTEMBER 13, 2017



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**PREPARED TESTIMONY OF
PAUL PRUSCHKI
(CHAPTER 2)**

I. OVERVIEW AND PURPOSE

The purpose of my testimony is to present San Diego Gas & Electric Company's (SDG&E) energy efficiency (EE) proposal (the EE Proposal) created to support the San Diego Unified Port District's (District) Energy Management Plan (EMP), developed under the guidance of Assembly Bill No. 628 (AB 628) to reduce air emissions and promote economic development in the District.¹ An important element of this EMP is EE and the District-approved EMP outlines the parties' EE Proposal.² Specifically, the EMP outlines EE initiatives that concern both facilities owned and operated by the District, as well as those facilities operated by District tenants.³

The EE Proposal requests authority to implement a category of energy efficiency measures specifically for the District and its tenants, which will be referred to as specialized EE measures since they do not fall within SDG&E's existing EE portfolio and are therefore incremental to existing allocated EE funds.

My testimony is organized as follows:

- **Section II – Background:** provides an overview of the determination of the need for the EE Proposal.

¹ AB 628, Energy Management Plans for Ports and Harbor Districts (October 11, 2013), codified in California Public Resources Code (Cal. Pub. Res. Code), Chapter 13 § 25990.

² *Port of San Diego Energy Management Plan*, pp. 19-28 (as Exhibit A to Energy Management Plan Contract filed August 22, 2017) (EMP).

³ *Id.*

- 1 • **Section III – Objectives and Goals:** provides AB 628’s EE-specific requirements
2 and the EE-related GHG goals for the District’s Climate Action Plan.
- 3 • **Section IV – Development of the Energy Efficiency Proposal:** provides an
4 overview of the EE Proposal development process.
- 5 • **Section V – Energy Efficiency Proposal:** describes the details of the EE Proposal to
6 support the goals of the EMP.
- 7 • **Section VI – Expected Impact to GHGs/Energy Consumption:** describes the
8 impact on Greenhouse Gases (GHGs) and energy consumption resulting from the EE
9 activities proposed.
- 10 • **Section VII – Proposal Costs and Benefits:** provides a summary of the costs and
11 benefits associated with the proposed activities.
- 12 • **Section VIII – Proposal Reasonableness:** describes the aspects of AB 628 that are
13 addressed by the proposal and why it should be approved.
- 14 • **Section IX – Conclusion:** provides a summary of the proposal.
- 15 • **Section X – Qualifications:** briefly summarizes my qualifications as a witness.

16 SDG&E is requesting \$2.555 million in fully loaded costs to implement the EE
17 Proposal from 2019 through 2021. These costs are further described in Section VII of my
18 testimony. Due to the changing nature of technology and EE regulation, the District and
19 SDG&E intend to implement energy efficiency in a phased approach. Defined goals have
20 only been established for the initial three years, though the EMP is developed around a five-
21 year timeframe. Subsequent updates to the EMP will be made to address mid and long-term
22 periods. The electric and gas cost recovery for the EE Proposal is addressed in the Prepared

1 Direct testimonies of Cynthia Fang (Chapter 4) and Michael Foster (Chapter 5),
2 respectively.

3 **II. HISTORY OF ENERGY EFFICIENCY COLLABORATION BETWEEN**
4 **SDG&E AND THE DISTRICT**

5 The District is one of SDG&E’s formal partners within its existing EE Local
6 Government Partnership program and has been working collaboratively with SDG&E since
7 2008, when a Memorandum of Understanding was signed to support the District’s Green
8 Port Program. In 2010, SDG&E and the District executed the first Local Government
9 Partnership agreement. The current partnership agreement for 2016-2020 covers the
10 following 6 program components:

11 1. Education and Outreach provides EE training, outreach and learning and
12 engagement tools for District staff and tenants;

13 2. District Operations Energy Management conducts energy audits and develops
14 energy strategic plan for District operated facilities;

15 3. Climate Planning conducts GHG emissions inventories, and develops District
16 and Maritime tenant operational EE needs assessments;

17 4. Green Business Network provides training and outreach, and energy
18 assessments and EE technical assistance for District tenants;

19 5. Administration and Program Implementation develops administrative cross-
20 functional energy management tracking processes and responsibilities; and

21 6. Collaborative Projects with Other SDG&E Local Government Partners –
22 which establishes the San Diego Regional Energy Partnership which the District contributes
23 to and collaboratively manages.

1 Additionally, SDG&E offers all its customers, including the District and its tenants, a
2 comprehensive package of EE solutions through its existing EE programs. During the 2010-
3 2016 period, the District and its tenants saved over 39 million kWh of electricity by
4 implementing EE projects including upgrades to lighting, compressed air, refrigeration, and
5 other processes.

6 Following the development of the District’s climate action plan in 2013, SDG&E
7 and the District established a target of delivering annually, one percent of the combined
8 2013 District and tenant load in energy savings. As discussed in the EMP⁴, the cumulative
9 target from 2015-2020, was 19.9 million kWh. 2020 was the established target because that
10 was the first goal described in the District’s climate action plan⁵. As discussed in Section I.,
11 the changing nature of technology and EE regulation warrants a three year EE planning
12 cycle. Leaving time for the regulatory process, this proposal anticipates a 2019 start and
13 thus covers the years 2019-2021.

14 Additional information regarding EE upgrade projects accomplished by the District
15 and its tenants is provided in Section IV below.

16 **III. AB 628 ENERGY EFFICIENCY OBJECTIVES AND THE DISTRICT’S CAP**
17 **GOALS**

18 AB 628 outlines several EE-specific requirements that comprise an appropriate
19 energy management plan, including, but not limited to:

⁴ EMP, p. 19 (as Exhibit A to Energy Management Plan Contract filed August 22, 2017).

⁵ *Port of San Diego Climate Action Plan 2013*, p. 11 - “The baseline and projected emissions data provide benchmarks for monitoring the Port’s performance toward reaching its GHG reduction goals of 10% less than 2006 baseline levels by 2020.”

- 1 • An assessment, in consultation with business and industry, that identifies
2 current and emerging processes and technologies to reduce energy
3 consumption and improve energy efficiency;⁶
- 4 • A list of recommendations, developed jointly with the serving electrical
5 corporation, gas corporation, community choice aggregator established on or
6 before July 1, 2013, or local publicly owned electric or gas utility for the
7 enhanced use of cost-effective energy efficiency and demand-side
8 management in existing buildings and the inclusion of energy efficiency
9 measures as part of the development of new buildings;⁷
- 10 • Proposed methods to fund the activities included in the plan, including
11 funding through utility ratepayer-funded programs⁸; and
- 12 • Other related energy plans, mandates, and requirements, and, to the extent
13 possible, leverage opportunities for achieving energy efficiency and
14 sustainable energy production, while not overburdening impacted
15 businesses.⁹

16 Additionally, AB 628 strives to reduce air emissions and promote economic
17 development through the addition of new businesses and the retention of existing businesses
18 in the district.¹⁰

⁶ Cal. Pub. Res. Code §25990(b)(2)(C).

⁷ *Id.*, §25990(b)(4).

⁸ *Id.*, §25990(b)(8).

⁹ *Id.*, §25990(b)(9).

¹⁰ Cal. Pub. Res. Code §25990(a).

1 The District is also subject to its own Climate Action Plan (CAP) adopted by the
2 District in 2013, which projects 20% of its GHG reductions to come from EE measures.
3 Specifically, the CAP expects increased retrofits of commercial and industrial buildings and
4 stationary equipment by lease provision requirements and other mechanisms promoting
5 incentives and financing tools for District tenants.¹¹

6 **IV. DEVELOPMENT OF EE SECTION OF THE EMP AND THE RESULTING**
7 **EE PROPOSAL**

8 The EE Proposal is a key part of the District EMP, as it addresses the direction
9 provided by both AB 628 and the District’s CAP to assess current and developing
10 technologies to conserve energy and improve efficiencies within the District as a means of
11 reducing GHG emissions.

12 To develop the EE portion of the EMP and the subsequent EE Proposal, SDG&E
13 worked with the District and its tenants to assess additional EE potential through review of
14 historical participation in EE programs, energy usage data and completion of specialized
15 audits. This process revealed two key findings. First, with some customers, there remain
16 opportunities for energy savings through standard EE measures. SDG&E experience has
17 demonstrated that more focused contractor attention can often secure such savings. Second,
18 there are meaningful savings opportunities that do not qualify for SDG&E’s current EE
19 programs. SDG&E is requesting that these be treated as specialized measures under this
20 proposal. The elements of this proposal are based upon this general District energy data as
21 well as the specific data provided by these specialized audits.

¹¹ *Port of San Diego Climate Action Plan 2013*, p. 24.

1 **A. San Diego Unified Port District Energy Usage Assessment**

2 Given the geographic size and composition of businesses within the District, there
3 are many different types of utility customers with a high degree of variation in their energy
4 usage. These differences present specific challenges when developing an energy efficiency
5 plan for the District and require an EE Proposal designed to address these unique challenges.
6 SDG&E’s customers at the District can generally be classified into one of four categories for
7 purposes of this plan:

8 Large Commercial tenants – The primary large commercial customers at the District
9 are hotels and the San Diego Convention Center. These facilities have been active
10 participants in SDG&E’s EE programs and many typical measures for these commercial
11 facilities have already been addressed. Additional opportunities exist; however, such
12 projects would likely require more in-depth review and/or emerging EE technologies (see
13 Section V.3.);

14 Small Commercial Tenants – District tenants include many small businesses that
15 have typically participated in SDG&E’s EE programs via the Business Energy Solutions
16 (BES) program. BES contracts with third party implementers to provide no-cost audits and
17 implements certain measures at no-cost or with a copay. This low-cost/no-cost
18 implementation method is known as Direct Install and, as described in the next section,
19 SDG&E intends to continue to offer similar Direct Install services to new and existing small
20 business District tenants;

21 Industrial tenants – The District includes several large energy users that represent the
22 following industry segments: Large Manufacturing, Shipbuilding/Ship Repair,
23 Warehousing/Logistics, and Biotech. This category has significant potential, but much of
24 the energy consumption of these tenants occurs through industrial processes, requiring

1 process expertise, more detailed engineering review, and specialized solutions. Current EE
2 programs may not support the in-depth review or provide appropriate incentives needed to
3 make these projects viable. Thus, some of these project opportunities will require
4 specialized treatment, including the EE provisions unique to this plan;

5 District facilities – These facilities would normally be classified as part of a
6 commercial sector, but are separately identified since the District has a formal Local
7 Government Partnership with SDG&E under the utility’s existing EE portfolio. Historically,
8 participation has been limited to typical measures for commercial buildings, such as lighting
9 retrofits. Planning and implementation of more comprehensive EE projects could be
10 coordinated and executed as part of the Enhanced Partnership Program included within this
11 EMP and further discussed in SDG&E’s EPP Proposal provided in the testimony of Julia
12 Mendoza (Chapter 3).

13 **B. Specialized Audits**

14 SDG&E’s core EE portfolio provides a variety of facility audits and benchmarking
15 offerings. In developing the EMP, SDG&E reviewed data from completed audits. This
16 review found that several key commercial and industrial tenants had not recently
17 participated in an audit program or had gaps in areas audited. Working with this selection of
18 customers, SDG&E completed specialized audits at some of the largest District tenant
19 facilities to discover new energy savings opportunities.

20 These specialized audits were performed for certain high-energy-use District tenants
21 to evaluate energy consumption areas not adequately addressed by the standard audit
22 offering and to complete an in-depth review of potential complex measures not currently
23 eligible for rebates or incentives under existing SDG&E EE programs. These specialized

1 audits identified a number of energy saving opportunities for which specialized EE measures
2 could be developed. These include:

- 3 • Industrial Process Load: High-energy consuming equipment that supports
4 industrial processes (*e.g.*, sandblasting, product manufacture and testing);
- 5 • Temporary Equipment: Portable equipment regularly used on different
6 projects at different District sites that may not be owned by host customer
7 (*e.g.*, welding equipment, air compressors, lighting and ventilation used
8 aboard ships docked for repair);
- 9 • Advanced Controls and Energy Dashboards: Computer systems that display
10 and manage the amount of energy consumption used in facilities and
11 facilitate steps to control this consumption (*e.g.*, advanced building
12 management systems); and
- 13 • Emerging Technologies: New technologies that are not yet commercially
14 available or are not yet proven (*e.g.*, advanced sandblasting technology;
15 temporary service control technology).

16 Overall, these specialized audits were beneficial in addressing gaps in previous
17 audits and identifying additional opportunities for energy savings for the District and its
18 tenants. By providing flexibility to customize the audit scope to match the customer profile,
19 contracting with system and technology experts appropriate to the audit area, and providing
20 funding to conduct more in-depth analyses, SDG&E was able to: (1) quantify savings
21 opportunities either not previously identified or ineligible for existing programs; and (2)
22 make actionable and informed recommendations.

1 **V. ENERGY EFFICIENCY PROPOSAL**

2 As part of the EMP, SDG&E is proposing a comprehensive EE Proposal for both
3 District and tenant facilities, which targets securing 10 million kWh and 60,000 therms over
4 the 2019-2021 plan implementation period.

5 SDG&E proposes to engage the third-party contractor community to deliver EE
6 services under the EMP and to issue one or more Requests for Offer (RFO) for EE. Due to
7 the planned RFO approach to EE implementation, annual goals within the three-year period
8 will be proposed by bidders and finalized during contracting.

9 This EE Proposal includes three components:

- 10 • Incentives for specialized measures
- 11 • Additional specialized audits
- 12 • Emerging technology projects specifically relevant to the District and its
13 tenants.

14 It should be noted that implementation of energy efficiency projects at the District
15 and its tenants would also include incentives for standard measures paid for through
16 SDG&E's standard EE portfolio. Thus, only the incremental funding required for the three
17 listed activities above are part of this EE Proposal.

18 The following subsections provide further detail regarding implementation of the
19 District's EE Proposal and how it would address the unique characteristics of the District
20 and its tenants.

21 **A. Measure Categories and Treatment**

22 The EE Proposal proposes two categories of measures, as discussed above. The first
23 are "standard measures," which qualify for incentives under current and future EE programs

1 consistent with SDG&E’s standard EE offering as approved by the CPUC.¹² The second are
 2 “specialized measures,” which provide measurable and verifiable energy savings, and thus
 3 GHG reductions, but for the reasons described in Section IV of this chapter and summarized
 4 below in Table PP-1 do not qualify for participation in SDG&E’s standard EE programs.

5 Table PP-1 below summarizes the differences between these two categories.

6 **Table PP-1: District EMP Measure Categories**

District Measure Category	Description	Examples
Standard	Measures that qualify for existing SDG&E EE Programs and are counted in SDG&E's EE Savings Goals set by the CPUC	<ul style="list-style-type: none"> - LED Interior and Exterior Lights - Variable Frequency Drives - Smart Controls
Specialized	Measures that do not qualify for existing SDG&E EE Programs	<ul style="list-style-type: none"> - Measures leased or owned by non-District tenants but used at the District, e.g., equipment operated by subcontractors at the District-Portable equipment not permanently installed, e.g., welding equipment, air compressors, lighting and ventilation used aboard ships docked for repair - Advanced measures not yet approved by Programs, e.g., emerging technologies described later in this section - Accounts that do not qualify based on their rate, e.g., accounts with an EG rate (the natural gas transportation rate for Electric Generation customers)

7
 8 Table PP-2 provides quantitative electric and gas savings estimates related to these
 9 two categories of measures proposed in the EE Proposal:

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 12 ¹² See SDG&E AL 2951-E-A/2512-G-A, approved by the CPUC on June 7, 2017 and effective January 1, 2017, accessible at: <http://regarchive.sdge.com/tm2/pdf/2951-E.pdf>.

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Table PP-2: District EMP Savings by Measure Category

District Measure Category	Targeted Electric Energy Savings (kWh)	Targeted Gas Energy Savings (Therms)	Targeted Distribution
Standard	7,000,000	42,000	70%
Specialized	3,000,000	18,000	30%
Totals (2019-2021)	10,000,000	60,000	100%

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1. Standard Measures

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2. Specialized Measures

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The EMP targets 7 million kWh of standard energy savings based upon the findings of previous and recently completed audits, primarily in Lighting, HVAC, Variable frequency drives and Industrial Process categories. The EMP proposes to secure these savings by using standard deemed values and calculated methodologies.

Funds for standard measure incentives would be paid from SDG&E’s existing EE portfolio and corresponding savings would be claimed by the portfolio pursuant to their existing allocations. Therefore, SDG&E is not requesting any incremental funding for the standard measures contemplated in the EE Proposal. It should be noted that EE and corresponding EE technology and regulations are dynamic. SDG&E will work to remain nimble and flexible as measures are implemented, ensuring that the SDG&E standard EE portfolio is always considered first.

As described in section IV.2. above, the audits recently performed by SDG&E identified meaningful energy savings opportunities related to measures that would not normally qualify for incentives under SDG&E’s standard EE programs; however, the energy savings opportunities identified are relatively large and would result in meaningful GHG

1 reductions, which would contribute to the District’s CAP goals. By focusing on large scale
2 energy savings opportunities, these specialized measures also meet AB 628’s requirements
3 for cost-effectiveness through economies of scale. As an example of one such measure,
4 portable equipment (welders, air compressors, lighting and ventilators) are leased or owned
5 by and used by contractors in the local shipyards. Because the host customer (District
6 tenant) pays the site electric bills, the contractors using temporary tools and equipment
7 onsite are ineligible for current incentive programs. Incentives are necessary to encourage
8 contractors as well as the customer to use energy efficient equipment. In accordance with
9 the guidance provided in AB 628, this plan proposes that incentives be offered to enable
10 implementation of measures addressing temporary work solutions, and capturing the GHG
11 reduction potential they offer. Actual project incentives would be adjusted based upon the
12 energy savings impact within the District’s boundaries. Overall, this proposal targets 3
13 million kWh of specialized energy savings measures based upon the findings in recently
14 completed audits.

15 **3. Specialized Audits**

16 As described above in Section IV of this chapter, many of the largest energy users in
17 the District require audits performed by firms with specialized skill and industry knowledge
18 to identify energy savings opportunities. Typical audits, like those included in SDG&E’s
19 Comprehensive Audit Program, provide those who qualify with a no-cost, high-level energy
20 audit and analysis conducted by Trade Professionals and top-tier engineering talent. Due to
21 the specialized nature of some of the industries operating at the District, these high-level
22 audits are not sufficient to identify more complex savings opportunities. Specialized audits
23 allow SDG&E to contract with engineering experts from the same industries as these largest

1 District tenants. The program eligibility rules of the program and the potential for more
2 complex engineering services are not within the scope of CAP.

3 Audits prepared by specialized technical experts are thorough, provide the type of
4 substantive technical recommendations that come with extensive experience, are more
5 actionable, and are better received by the customers. The specialized audits performed to
6 date have identified meaningful potential savings and, therefore, this EE Proposal includes
7 funding for additional specialized audits to continue identifying these opportunities.

8 **4. Emerging Technology Projects**

9 As stated above in Section II of this chapter, AB 628 specifically encourages the
10 assessment of emerging technologies (ET) to save energy. Thus, SDG&E proposes to
11 include a small number of ET projects, which may be District-specific or more general EE-
12 related, as part of the EMP. While specific projects have not yet been identified, SDG&E
13 expects to collaborate with the District and its tenants to identify new technologies that
14 would have specific application to impact and potentially reduce energy use within the
15 District.

16 Potential ET projects suitable for the District could include the following:

- 17 • advanced lighting and lighting controls;
- 18 • advanced sandblasting;
- 19 • advanced commercial HVAC systems and controls;
- 20 • continuous commissioning for ongoing optimization and fault detection of
21 building energy systems;
- 22 • waste heat and water recovery;
- 23 • temporary service control technology;

- 1 • commercial plug-load management; and
- 2 • IDSM (Integrated Demand Site Management) cold storage phase change
- 3 material.

4 Energy savings from these efforts would be counted under the specialized measures
5 category.

6 **5. Integrated Demand Side Management (IDSM)**

7 While the EMP is focused on EE measures to reduce GHG emissions in accordance
8 with AB 628, the EMP also embraces all aspects of demand-side management, consistent
9 with AB 628. Thus, in its EE Proposal, SDG&E will be scoring the RFO third-party bidders
10 on how well their EE proposal will integrate other offerings like demand response, water
11 conservation, and renewables into their implementation for the District and its tenants.

12 This proposal will help further promote existing SDG&E demand side management
13 programs, and SDG&E will look to see how the bidders plan on integrating resources from
14 other proceedings like DRAM and CSI. In addition, the advanced energy technologies
15 proposal in the EMP will also help further advance this objective.

16 **6. Third-Party Implementation/RFO**

17 SDG&E proposes to engage the third-party contractor community to deliver EE
18 services under the EMP and to issue one or more RFOs for EE measures to be installed at
19 District or tenant facilities. These RFOs would seek experienced vendors to provide turnkey
20 services necessary for the delivery of energy efficiency savings described in this plan.

21 The RFO process would define required savings to be delivered and a timeframe.
22 Bidders would propose delivery methodologies, target customers, measures, and pricing.
23 The selected implementer would work with the District and its tenants to implement both
24 standard measures and specialized measures. In addition, the RFO would require the vendor

1 to provide Evaluation, Measurement and Verification (EM&V) services to verify the savings
2 achieved from these measures.

3 SDG&E’s current plan is to work on the RFO process shortly after approval of the
4 EE Proposal. Issuance of the RFO would likely occur within six months. Based on prior
5 experience, a selection of the qualified implementer(s) would be made 3 to 6 months later,
6 and contracting with the selected implementer(s) may take another 3 to 6 months.

7 While we anticipate the RFO contractor(s) will bring in most of the targeted savings,
8 there will be cases where SDG&E’s existing programs and third-party contractors are better
9 positioned to deliver EE services. These programs may be used by customers whose
10 business situation does not align with the RFO’s contractor(s).

11 **7. Program Management**

12 The EE Proposal efforts would be managed and coordinated through SDG&E’s
13 Enhanced Partnership Program (EPP), as further described in the EMP. Specific information
14 about the SDG&E’s EPP Proposal is provided in the testimony of Julia Mendoza (Chapter
15 3).

16 **VI. EXPECTED IMPACT TO GREENHOUSE GASES AND ENERGY** 17 **CONSUMPTION**

18 Each EE project described in this Proposal is designed to immediately produce
19 energy consumption savings and thus, produce operating cost savings, which will vary
20 depending on the type of measure, upgrade, incentive or rebate applied, as tailored for the
21 District and its tenants. In addition to these cost savings, the EE Proposal is designed to
22 reduce GHG emissions in support of the District’s Climate Action Plan and in accordance
23 with the goals of an EMP as set forth AB 628. Each kWh of electricity saved is one less that

1 needs to be produced, thus the District can achieve reductions in GHG production associated
2 with reduced energy generation needs.

3 Given the proposed 2019-2021 EE savings goal of 10 million kWh and 60,000
4 therms, and using the District’s 2017 revised annual electric conversion rates and the gas
5 conversion rate of 11.73 lb CO2 Eq./therm,¹³ this EE Proposal is estimated to reduce
6 greenhouse gases by 2,777 metric tons CO2 Eq by year-end 2021. This potential significant
7 reduction in GHG emissions not only benefits the District and its tenants who will see a
8 reduction in overall energy usage, thereby encouraging greater economic development, but
9 also supports better air quality.

10 Table PP-3 below is a representation of the targeted impact of the EE Proposal,
11 based on an even allocation of energy savings over the three-year period:

12 **Table PP-3: Energy and GHG Impact of Proposed EE Plan (2019-2021)**

Year	Targeted Electric Energy Savings (kWh)	Targeted Gas Energy Savings (Therms)	Resulting GHG Reduction MTCO2 Eq.
2019	3,333,333	20,000	935
2020	3,333,333	20,000	925
2021	3,333,333	20,000	917
2019-2021	10,000,000	60,000	2,777

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14 **VII. ESTIMATED COSTS FOR EE PROPOSAL**

15 In this Application, SDG&E is requesting approval of cost recovery of \$2.313
16 million¹⁴ in 2017 dollars to fund the direct costs of incremental specialized measures

¹³ Port of San Diego Climate Action Plan 2013, Appendix B, Table E-2, at p. 101.

¹⁴ These are direct costs in 2017 dollars. Fully loaded costs are presented below in Table PP-6 of my testimony.

1 included in its EE Proposal, additional specialized audits and emerging technology projects.
 2 The incremental funding required for these activities is listed in Table PP-4 below, which
 3 summarizes the expected direct procurement costs in 2017 dollars. As noted above, defined
 4 goals and programs have only been established for the initial three years of the EMP, though
 5 the EMP is developed around a five-year timeframe, to remain flexible with respect to the
 6 changing nature of technology and EE regulation.

7 **Table PP-4: EE Direct Cost Summary**

(2017\$ Cost in 1,000s; Excludes Loaders, Escalation, Taxes)				
Project	2019	2020	2021	Total
EE - Incremental	\$771	\$771	\$771	\$2,313

8 Table PP-5 lists the activities included in the EE Proposal, and their corresponding direct
 9 costs based on 2017 dollars.

10 **Table PP-5: EE Proposal Activities and Requested Funding**

2017\$ Funding Category 2019-2021	Amount
Targeted Specialized Measure Procurement Costs	\$1,413,050
Future Specialized Audits	\$300,000
Emerging Technology Projects	\$600,000
Total Incremental Funds Requested	\$2,313,050

11 Table PP-6 shows the fully loaded costs for the EE-related incremental activities for AB
 12 628.

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Table PP-6: Incremental Energy Efficiency Loaded Cost Summary

(Cost in 1,000s; Includes Loaders, Escalation)				
Project	2019	2020	2021	Total
EE - Incremental	\$831	\$851	\$872	\$2,555

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To develop a fully loaded cost estimate for the EE proposal, incremental operations & maintenance (O&M) costs and benefits are adjusted to include overhead allocations, consistent with their classification as company labor, contract labor, or purchased services and materials. Overhead allocations are those activities and services associated with direct costs and benefits, such as payroll taxes and pension and benefits, or costs that cannot be economically direct-charged, such as administrative and general overheads. The overhead allocations adhere to the methodology proposed by the Federal Energy Regulatory Commission (FERC)¹⁵ and were derived using the same methodology used in SDG&E's most recent GRC filing. SDG&E used the average of January 2017 - May 2017 internal overhead planning rates for illustrative purposes in this application; however, actual overhead rates would be applied in the determination of actual revenue requirement, and only overheads incremental to the program would be included.

SDG&E is proposing to split the revenue requirement at 90% electric and 10% gas consistent with the ratios adopted in Decision (D.)14-10-046 for the 2015 EE programs.¹⁶ The cost recovery associated with incremental activities in SDG&E's EE proposal is

¹⁵ FERC guidelines reference the Statement of Federal Financial Accounting Standards 4: Managerial Cost Accounting Standards and Concepts.

¹⁶ D.14-10-046, Ordering Paragraph 21; SDG&E Advice Letter 2682-E, available at <http://regarchive.sdge.com/tm2/pdf/2682-E.pdf>.

1 described in the prepared direct testimonies of Cynthia Fang (Chapter 4) and Michael Foster
2 (Chapter 5).

3 **VIII. THE CPUC SHOULD APPROVE THE EE PROPOSAL AS A REASONABLE**
4 **PROPOSAL THAT MEETS THE REQUIREMENTS OF AB 628 AND**
5 **SUPPORTS THE DISTRICT-APPROVED EMP AND CAP**

6 The EMP and the resulting EE Proposal were collaboratively developed by SDG&E
7 and the District in direct response to the requirements of AB 628, which calls for an
8 assessment of energy efficiency and recommendations for the enhanced use of cost-effective
9 energy efficiency and demand-side management as one important aspect of energy
10 management and GHG emission reduction efforts. The EE Proposal meets the EE-related
11 requirements of AB 628 and therefore, is a reasonable plan for the Commission to approve
12 in full as part of the overall District EMP. Specifically, the EE Proposal addresses the
13 following components of AB 628 with respect to the District and its tenants:

- 14 • Assessment of current and emerging processes and technologies to reduce
15 energy consumption;¹⁷ is addressed by the inclusion of funding for three
16 future ET projects relevant to the District;
- 17 • Recommendations for enhanced use of energy efficiency;¹⁸ is addressed by
18 focusing EE efforts at the District via a third-party implementer whose scope
19 would include both standard and specialized EE measures;
- 20 • Proposed methods to fund the activities included in the plan, including
21 funding through utility ratepayer-funded programs¹⁹; and

¹⁷ Cal. Pub. Res. Code §25990(b)(2)(C)

¹⁸ *Id.*, §25990(b)(4).

¹⁹ *Id.*, §25990(b)(8).

- 1 • Other related energy plans, mandates, and requirements, and, to the extent
2 possible, leverage opportunities for achieving energy efficiency and
3 sustainable energy production, while not overburdening impacted
4 businesses.²⁰

5 Additionally, SDG&E and the District designed the EE Proposal to help contribute to
6 other more global goals and requirements set forth in AB 628, such as the EMP's
7 implementation objectives,²¹ GHG emission reductions and small businesses engagement.

8 **IX. CONCLUSION**

9 To summarize, my testimony provided the proposal for energy efficiency activities
10 and associated funding, where applicable, in support of the EE component of the EMP for
11 the District, which includes:

- 12 • Standard energy efficiency measures;
- 13 • Specialized energy efficiency measures;
- 14 • Leveraging completed audits;
- 15 • Provisions for additional specialized audits to identify future opportunities;
- 16 • Participation in demand-side management and emerging technology
17 programs; and
- 18 • Use of a Request for Offer approach to use a third-party contractor(s) for
19 implementation.

²⁰ *Id.*, §25990(b)(9).

²¹ Including an assessment that identifies current and emerging processes and technologies to reduce energy consumption and improve energy efficiency and a list of recommendations for the enhanced use of cost-effective energy efficiency and demand-side management in existing buildings and the inclusion of energy efficiency measures as part of the development of new building.

1 The proposals in this testimony align with the goals of AB 628 and the District's
2 Climate Action Plan by increasing energy efficiency, reducing energy consumption,
3 reducing District operating costs, reducing greenhouse gas emissions, and encouraging the
4 development of new businesses and the retention of existing businesses.

5

1 **X. QUALIFICATIONS**

2 My name is Paul Pruschki and I am employed by the San Diego Gas & Electric
3 Company (SDG&E). My business address is 8335 Century Park Court, San Diego,
4 California 92123.

5 My present position is the Engineering, Systems & Support Manager in the
6 Customer Programs department of SDG&E. My primary responsibilities include leading
7 and managing a team of engineers and technical, processing and inspections staff that
8 provide support for the energy efficiency and demand response programs at SDG&E. I
9 began work at SDG&E in February 2003 as a Measurement Data Communications Manager
10 and have held positions of increasing responsibility in the Information Technology
11 organization, Electric Metering Engineering/Operations and now Customer Programs
12 department.

13 In 1991, I graduated from the Rensselaer Polytechnic Institute in Troy, New York
14 with a Bachelor of Science degree in Electrical Engineering.

15 I have previously represented SDG&E as an expert witness for Smart Meter policy
16 and the Advanced Metering Operations in the TY2012 GRC. I have also served as an expert
17 witness for SDG&E's Advanced Metering Infrastructure proceeding, A.05-03-015, and
18 testified before the Commission in such proceeding.