

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

PREPARED DIRECT TESTIMONY OF

TODD CAHILL

ON BEHALF OF SAN DIEGO GAS AND ELECTRIC COMPANY

CHAPTER 1

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

SEPTEMBER 13, 2017



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**PREPARED DIRECT TESTIMONY OF
TODD CAHILL
CHAPTER 1**

I. OVERVIEW AND PURPOSE

The purpose of my testimony is to present, for California Public Utilities Commission (CPUC or Commission) approval of portions of the San Diego Unified Port District's (District) Energy Management Plan (EMP), developed in collaboration with San Diego Gas & Electric Company (SDG&E) and attached to this application as Exhibit A. In particular, my testimony supports the Electric Shore Power Rate Discount, the Energy Efficiency (EE), and the Enhanced Partnership Program (EPP) Proposals.

Assembly Bill (AB) 628, codified in Chapter 13 of Division 15 of the California Public Resources Code, authorizes port districts, including the District, to work with the electric and gas utility serving such district to prepare energy management plans that aim to reduce air emissions and promote economic development in the port districts' respective regions.¹

This EMP, unanimously approved by the District's Board of Commissioners on August 8, 2017,² leverages elements of the District's existing Climate Action Plan (CAP) to craft a comprehensive energy roadmap that addresses the District's goals of reducing greenhouse gas (GHG) emissions, improving public health, creating local green jobs, and retaining current businesses. The EMP is also designed to give the District flexibility to

¹ AB 628 ("Energy Management Plans for Ports and Harbor Districts") (Stats. of 2013), codified at California Public Resources Code § 25990 (hereinafter, Public Resources Code §25990).

² See Port of San Diego, Board of Port Commissioners, August 8, 2017 Meeting, Action Item 6, available at: <https://portofsandiego.legistar.com/LegislationDetail.aspx?ID=3116759&GUID=CDA607A1-B1D2-4727-9581-CAED0DC8B3D4&Options=&Search>.

1 align with new state regulations, leverage new technologies, and phase in advanced energy
2 technologies offered by SDG&E through the Commission. The District and SDG&E
3 envision this EMP to be the first of several developed cooperatively between SDG&E and
4 the District over the course of the next 15 years.³

5 Section II of my testimony provides additional background on the EMP. Section III
6 provides an overview of the three Proposals in the EMP for which SDG&E seeks regulatory
7 approval and funding authorization in this Application, and Section IV details the
8 corresponding funding requests for the three Proposals.

9 **II. BACKGROUND**

10 AB 628, signed into law by Governor Brown on October 11, 2013, authorizes the
11 District, in conjunction with SDG&E, to prepare an EMP to reduce air emissions and
12 promote economic development in the District.⁴ In doing so, the State of California
13 declared the following:

- 14 • That it seeks to “promote efficient use of low-cost, low-emissions
15 energy sources in the operations of ports and harbors;”
- 16 • That ports offer a unique opportunity to “reduce vehicular emissions
17 of greenhouse gases (GHG) and criteria pollutants;”
- 18 • That it “encourages the development of new businesses and retention
19 of existing business within port boundaries;”

³ Public Resources Code §25990(a) authorizes ports to work with an electrical corporation to “prepare one *or more* energy management plans.”

⁴ Public Resources Code §25990(a).

- 1 • That “businesses located within port and harbor districts may benefit
- 2 through greater stability in the cost of energy services;” and
- 3 • That investor-owned utilities, such as SDG&E, are in the “optimal
- 4 position" to work with ports to provide energy-related service
- 5 alternatives and programs.⁵

6 AB 628 also aligns with the State’s broader objective of combating climate change
7 through GHG reduction and energy regulations. Governor Schwarzenegger, through
8 Executive Order (EO) S-3-05, required the State to reduce its GHG emissions by 80% below
9 1990 levels by 2050.⁶ Governor Brown further required through EO B-30-15 and EO B-16-
10 2012, respectively, that the State reduce greenhouse gas emissions by 40% below 1990
11 levels by 2030⁷ and set a goal of having 1.5 million zero emission vehicles on the road by
12 2025.⁸ The State went even further with Senate Bill (SB) 350, which requires that EE spend
13 be doubled by 2030 and that 50% of electricity generated and sold in California come from
14 renewable energy resources by 2030.⁹

15 With these policy objectives in mind, the District and SDG&E executed a
16 memorandum of understanding on April 6, 2016 to establish a collaborative partnership to
17 work on an EMP for the District. SDG&E subsequently retained the assistance of Rocky
18 Mountain Institute (RMI), an independent nonprofit founded in 1982 that engages

⁵ Public Resources Code §25990(a)-(f).

⁶ EO S-30-05 (June 1, 2005), available at: <https://www.gov.ca.gov/news.php?id=1861>.

⁷ EO B-30-15 (April 29, 2015), available at: <https://www.gov.ca.gov/news.php?id=18938>.

⁸ EO B-16-2012, available at: <https://www.gov.ca.gov/news.php?id=17472>.

⁹ SB 350, Clean Energy and Pollution Reduction Act of 2015 (October 7, 2015).

1 businesses, communities, institutions, and entrepreneurs to accelerate the adoption of
2 market-based solutions that cost-effectively shift participants from fossil fuels to efficient
3 and renewable energy sources. In 2012 RMI created the Electricity Innovation Lab (eLab)
4 to bring together bold thinkers and decision-makers from across the energy sector. Through
5 eLab, SDG&E contracted with RMI in August 2016 to assist SDG&E and the District with
6 two key tasks: (1) identify the most promising opportunities for collaboration; and (2) design
7 a customized facilitation plan to create an EMP. RMI took a three-phased approach to
8 deliver on these tasks. Phase 1 framed the opportunities available through in-depth
9 interviews with SDG&E and District staff to identify existing opportunities, and review the
10 District's CAP, SDG&E Customer Programs offerings, state and local policies and best
11 practices in District operations. In Phase 2, RMI designed the collaborative launch working
12 session with SDG&E and the District. Phase 3 supported the collaborative launch through
13 an all-day workshop with SDG&E and the District, facilitated by RMI, which resulted in a
14 workshop summary report. The report provided a workshop overview, key insights,
15 outcomes and next steps for working together in the development of the District's EMP.
16 Following the conclusion of RMI's engagement, the District and SDG&E participated in a
17 series of steering committee meetings to flesh out the details of an initial EMP, prioritizing
18 focus areas that align with AB 628, the District's 2013 CAP and the State's GHG reduction
19 goals.

20 While AB 628 authorizes, but does not require, port districts to work with their local
21 utilities to create an EMP, the District and SDG&E determined that development of an EMP
22 was in the best interest of all parties involved. The District became one of the first ports in
23 the nation to voluntarily and unanimously adopt a CAP on December 10, 2013, which

1 contains energy efficiency and renewable generation goals for the District. Specifically, the
2 District's CAP seeks to reduce GHG emissions by 10% under 2006 levels by 2020 and 25%
3 under 2006 levels by 2035. The District intends to update future GHG reduction goals to
4 align with SB 32, which established an interim GHG reduction goal of 40% by 2030.
5 Implementing a long-term, flexible EMP will fulfill the objectives of AB 628, further the
6 State's GHG reduction efforts, and will provide the District with an effective tool to achieve
7 the CAP goals.

8 **III. PROPOSALS IN SUPPORT OF THE ENERGY MANAGEMENT PLAN**

9 Under AB 628, an EMP undertaken by a California port and its local utility should
10 strive to reduce energy consumption, mitigate GHG emissions and provide increased energy
11 cost certainty to help bolster existing business and attract new ones. As described above,
12 SDG&E and the District have been working collaboratively since April 6, 2016 to draft and
13 finalize the EMP. The resulting EMP describes several projects that SDG&E and the
14 District hope to collaborate on over the next five years. SDG&E is requesting funding for
15 three of the proposed projects in the EMP, specifically the EE, EPP, and Electric Shore
16 Power Rate Discount Proposals.¹⁰

17 **A. Energy Efficiency**

18 While the District and its tenants have been active participants in SDG&E's EE
19 portfolio programs in the past, including through a robust local government partnership
20 (LGP) funded by the Commission, SDG&E has identified additional opportunity for District

¹⁰ Other projects proposed in the EMP are part of other applications that SDG&E has pending before the Commission. For example, the mobile battery grant application was submitted by SDG&E for EPIC 3 funding. In addition, the clean transportation project was submitted as part of SDG&E's SB 350 application. Further, funding for microgrid infrastructure on the Port tidelands may be applied for through SDG&E's AB 2868 process. Each of these additional projects are described in the EMP, attached to this Application as Exhibit A.

1 energy savings. Specialized audits of the District tidelands reveal the following efficiency
2 opportunities:

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

17 More broadly, the audit results identified energy savings opportunities that fall into the
18 following categories:

- 19 • Measures that fit into existing SDG&E EE portfolio programs; and
- 20 • Special opportunities not covered by existing SDG&E EE portfolio
21 programs.

22 The District and SDG&E have designed an EE Proposal to implement measures
23 which address both of the categories listed above. As described in greater detail in Paul

1 Pruschki’s testimony (Chapter 2), SDG&E proposes to secure from the District and its
2 tenants 10 million kWh in energy efficiency savings by 2021¹¹ These savings will be
3 achieved through projects and measures that qualify for SDG&E standard EE programs as
4 well as incremental measures.

5 Implementation of EE measures will help the District align with AB 628’s objective
6 of assessing “current and emerging processes and technologies to reduce energy
7 consumption and improve energy efficiency.”¹² Further, the District’s CAP cites energy
8 conservation and efficiency as one of the measures it intends to utilize to reduce its GHG
9 emissions. Specifically, it seeks a reduction of 21,591 MT CO₂ – 20% under 2006 levels -
10 by 2020 through the implementation of energy efficiency measures.¹³ In emphasizing the
11 importance of energy efficiency, the CAP states:

12 The built environment is a significant indirect contributor to GHG emissions
13 as a result of the electricity and natural gas demand in buildings. Increasing
14 the energy efficiency of both new and existing buildings will result in
15 significant GHG reductions. The Port can implement energy strategies for
16 buildings and exterior spaces, which can provide the opportunity to save
17 money on utility costs, improve air quality, and provide other community
18 benefits.¹⁴

19 In addition to furthering the policy objectives set forth in AB 628 and helping the
20 District meet its EE CAP target, the EE Proposal will help the District and its tenants reduce
21 electricity demand, thereby lowering GHG emissions. This furthers the District’s GHG

¹¹ See Table PP-3 of Paul Pruschki’s testimony. ¶

¹² Public Resources Code §25990(b)(2)(C).

¹³ Port of San Diego Climate Action Plan 2013 at 24, available at:
[https://www.portofsandiego.org/document/
environment/climate-mitigation-and-adaptation-plan/documents-1/5515-port-of-san-diego-
climate-action-plan.html](https://www.portofsandiego.org/document/environment/climate-mitigation-and-adaptation-plan/documents-1/5515-port-of-san-diego-climate-action-plan.html).

¹⁴ *Id.*

1 goals, and helps the State achieve its SB 350 goal of doubling EE by 2030. Specifically,
2 given the proposed 2019-2021 EE savings estimate of 10 million kWh and 60,000 therms,
3 and using the District’s annual electric conversion rates and the gas conversion rate of 11.73
4 lb CO₂ Eq./therm as described in the District’s CAP,¹⁵ the EE Proposal is estimated to
5 reduce greenhouse gases by 2,803 MT CO₂ by year-end 2021.

6 **B. Enhanced Partnership Proposal**

7 The second proposal SDG&E seeks approval of in this Application is the Enhanced
8 Partnership Proposal (EPP). As described in detail in the testimony of Julia Mendoza
9 (Chapter 3), the EPP is a management tool to enable the implementation of the District’s
10 EMP.

11 The EPP will provide an on-going management framework for the successful
12 execution of the District’s EMP, including coordination efforts for the EE proposal
13 described above, budget management to ensure proper expenditure of ratepayer funds, and
14 general project management, including milestone development, tracking, reporting and
15 progress updates. The EPP will also support the development of future EMPs and
16 corresponding applications before the Commission.¹⁶ Further, the EPP will leverage a broad
17 stakeholder group to engage, educate and receive feedback from interested parties on the
18 District’s EMP.

19 SDG&E refers to the EPP as an “enhanced partnership” because SDG&E and the
20 District have an existing energy efficiency LGP upon which the EPP builds. SDG&E is
21 proud of the progress achieved collaboratively with the District and its tenants through its

¹⁵ Port of San Diego Climate Action Plan 2013, Appendix B, Table E-2.

¹⁶ Public Resources Code §25990(a) authorizes ports to work with an electrical corporation to “prepare one *or more* energy management plans.”

1 LGP. Started in 2010, the partnership has yielded approximately 335,000 kWh of energy
2 savings from District accounts and over 39 million kWh of energy savings from tenant
3 accounts as of the end of 2016. However, because the LGP pertains specifically to energy
4 efficiency projects and measures, this enhanced partnership proposal will be a separate effort
5 focused specifically on EMP governance and implementation, as described in greater detail
6 in Julia Mendoza’s testimony.

7 **C. Electric Shore Power Rate Discount**

8 The third proposal discussed in this Application is an electric shore power rate
9 discount for the District’s cruise ship terminal account to help support the cruise ship
10 industry in San Diego comply with the environmental restrictions imposed by the California
11 Air Resources Board (CARB), while continuing to drive economic development related to
12 cruise ship business within the District (Electric Shore Power Rate Discount Proposal). The
13 Electric Shore Power Rate Discount Proposal is both discussed here and in Chapter 4 in the
14 testimony of Cynthia Fang.

15 SDG&E’s Electric Shore Power Rate Discount Proposal supports the objective of
16 AB 628 to promote the economic viability of ports and is a key component of the EMP.
17 Specifically, AB 628 states that “[e]nergy utility customers located within the state’s port
18 and harbor districts may benefit from the addition of new businesses and the retention of
19 existing businesses through increased energy cost certainty.”¹⁷ The law further states that
20 “[b]usinesses located within the state’s port and harbor districts may benefit through greater
21 stability and certainty in the cost of energy services.”¹⁸

¹⁷ AB 628, Section 1(d)(Stats. of 2013).

¹⁸ AB 628, Section 1(e)(Stats. of 2013).

1 The District is a unique economic engine in the San Diego region, and, in particular,
2 the District’s cruise ship berths generate significant financial benefits to San Diegans.
3 According to a study performed on behalf of the District entitled *Economic Impacts of the*
4 *San Diego Unified Port District in 2015* by Economic & Planning Systems, Inc., there were
5 77 cruise calls to the District in 2015, generating over \$82 million in economic impact.¹⁹
6 Roundtrip cruises (those that begin and terminate in San Diego) generated \$1.93
7 million/ship, while in-transit calls (those cruises that visit San Diego as part of their
8 itinerary) generated \$576 thousand/ship. These calls in turn, generated 652 full-time
9 equivalent jobs in the San Diego metropolitan statistical area paying a total of \$35.93
10 million in employee earnings.²⁰ These statistics reinforce the importance of AB 628’s
11 objective to bolster the economic viability of California ports through cost certainty, and
12 highlight why it is necessary for the District to provide a competitive shore power rate.

13 A competitive shore power rate is also necessary to allow the District to continue
14 implementing energy policies that reduce GHG emissions by cruise ships and encourage the
15 continued use of shore-based power. In 2007, CARB adopted air quality rules commonly
16 referred to as the “At Berth Regulation” to reduce GHG emissions emitted by diesel
17 generation from cruise ships at six California ports, including the District.²¹ Effective as of

¹⁹ *Economic Impacts of the San Diego Unified Port District in 2015*, Final Report (Dec. 20, 2016), Appendix B (Business Research and Economic Advisors (BREA) Economic Impact Analysis of the San Diego Cruise Sector 2015) at 2, available at: <https://www.portofsandiego.org/document/about-port-of-san-diego-documents/strategic-plan/8037-economic-impact-analysis-2015/file.html>.

²⁰ *Id.* at 2.

²¹ 17 C.C.R. §93118.3; *see also* Final Regulation Order: Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port, California Air Resources Board, available at: <https://www.arb.ca.gov/ports/shorepower/finalregulation.pdf>.

1 2010, the At Berth Regulation prohibits cruise lines from docking more than five times a
2 year at the District’s berths unless they use shore-based power.²² If the District seeks to
3 support the use of shore-based power by cruise ships, but cannot offer a competitive energy
4 rate for such power, the District’s berths will be less attractive to cruise lines, and the intent
5 of the At Berth Regulation to reduce GHG emissions by cruise ships will be frustrated.

6 In addition to being a unique economic engine and subject to unique environmental
7 regimes, the District’s cruise ship terminal account is also unique with respect to its energy
8 load profile. Every time a cruise vessel “plugs in” to the grid-based shore power system, the
9 grid experiences an immediate load increase resulting from the need to power a cruise ship
10 with hundreds of guest rooms. Similarly, disconnecting from the system results in an
11 immediate, significant load reduction. To illustrate, in a single shore powering event from
12 October of 2016, the demand on the circuit went from zero to approximately 11,000 kW
13 when a cruise ship “plugged in” at approximately 7:30am, and immediately back to zero
14 after disconnection at approximately 5:15pm. Further, cruise vessels are generally deployed
15 in fleets; vessel owners make deployment scheduling decisions on the basis of multiple
16 vessels serving a group of ports. Vessel redeployments can be viewed as multiple vessels
17 entering or leaving service; alternatively, single vessel redeployments are exceedingly rare.
18 These market forces, operational costs and vessel fleet dynamics therefore result in outsized
19 impacts on vessel call volumes at a single port facility. In other words, the cruise ship
20 terminal account’s distinct load shape does not readily lend itself to an existing rate, while
21 significant increases in the electric rate for shore-based power would likely have drastic -

²² *Id.* at 2; *see also* 17 C.C.R. §93118.3(b)(3)(E)(2)).

1 and compounding - negative effects on cruise traffic at the terminal. SDG&E is offering the
2 Electric Shore Power Rate Discount Proposal to mitigate those negative effects.

3 Indeed, such a significant rate increase is on the horizon now because of unique
4 regulatory requirements resulting from changes to SDG&E's rates, and the requirements of
5 the CARB At Berth Regulation. As described in greater detail in Cynthia Fang's testimony
6 in Chapter 4 of this Application, in accordance with SDG&E's GRC Phase 2 proceeding,
7 SDG&E included in its 2016 GRC Phase 2 Application amendments to the applicability of
8 SDG&E's standard small commercial rate²³ which the District is currently utilizing on its
9 cruise ship terminal account to provide shore power to cruise lines in accordance with the At
10 Berth Regulation. These amendments will result in the District's cruise facilities no longer
11 being eligible for a small commercial rate. Absent the proposal in this Application, the
12 District will need to be transferred to the appropriate medium/large commercial and
13 industrial rate, Schedule A6-TOU without regard to the unique circumstances faced by the
14 District. It is estimated that transitioning the District's cruise ship terminal account from
15 SDG&E's Schedule TOU-A to Schedule A6-TOU would cause annual bill amounts to
16 increase by over 400%, due in large part to its new exposure to charges that are based on a
17 customer's kW demand,²⁴ which is highly volatile because of the unique energy profile
18 described above. This substantial rate change will likely significantly negatively impact the
19 regional cruise ship industry, tourism, and economic development and retention in the
20 District. To the extent that the cruise ship business declines or disappears, the entire San
21 Diego region will suffer economic losses including loss of jobs and revenues.

²³ SDG&E Schedule TOU-A generally applies to customers consuming less than 20 kW.

²⁴ Based on existing load factor.

1 The Commission agrees that “[i]t is in the best interest of the state, SDG&E and the
2 Port to come to an agreement on an appropriate long term rate solution for the Port.”²⁵ In
3 Resolution E-4812, issued on August 10, 2017, the Commission approved SDG&E’s Advice
4 Letter 2896-E seeking approval to allow the District’s cruise ship terminal account to remain
5 on its current rate on an interim basis while this Application is pending before the
6 Commission. In doing so, the Commission noted that “the Port’s maximum demand is over
7 20 times higher than that of the next highest customer among those who would be
8 transitioned to AL TOU by the rate applicability change.”²⁶ The Commission further noted
9 that “[b]y changing rates, the Port could conceivably go from having no demand charges to
10 having more than \$100,000 in demand charges in a month when it experiences maximum
11 demand,”²⁷ ultimately finding as follows:

12 The Commission finds that this would be contrary to AB 628’s goal of
13 greater stability and certainty in the cost of energy in the cost of energy
14 services for ports. Further, the Commission finds that the Port’s move to
15 displace diesel generation from ships with shore power helps to achieve the
16 state’s AB 32 GHG goals, and would significantly reduce emission of
17 criteria pollutants.²⁸

18 For these reasons, SDG&E offers a rate proposal for the District’s shore power
19 account that will prevent the rate shock that the District will otherwise experience in July
20 2018, enabling it to continue operating as a major economic engine for the region and utilize
21 shore power as a means of reducing GHG emissions. As described further in the testimony

²⁵ California Public Utilities Commission, Resolution E-4812 at 7, Finding 7 (issued August 10, 2017).

²⁶ *Id.* at 4.

²⁷ *Id.*

²⁸ *Id.*; *see also id.* at 6-7.

1 of Cynthia Fang (Chapter 4), this discount, if approved, will be applicable to the District's
2 cruise ship terminal account for a period of 5 years and will be indexed to SDG&E's class-
3 average rate for the Medium/Large C&I customer class. Specifically, the District's monthly
4 electric service bill from SDG&E will show charges under the District's otherwise
5 applicable cost-based rate option (currently Schedule A6-TOU) and a discount or separate
6 credit (showing both dollar amount and percentage) will be included (Discount). The
7 Discount will be recalculated each billing period to cause the net electric rate paid by the
8 District to equal SDG&E's currently-effective class-average rate. Taxes and fees applicable
9 to the discounted electric charges will be shown on the bill or by means of the separate
10 credit.

11 SDG&E acknowledges that in approving the interim rate, and supporting the need
12 for an alternative rate solution, the Commission also asks that "SDG&E pay particular
13 attention to the cost basis of the long-term rate solution" and requests that the EMP
14 "minimize the Port's demand on SDG&E's system in order to align the Port's rate treatment
15 with its cost of service."²⁹ In response, SDG&E notes that after extensive evaluation of the
16 subject, the Discount is the most cost-effective solution that meets AB 628's objectives of
17 (1) reducing emissions of greenhouse gases and criteria pollutants; and (2) increasing energy
18 cost certainty. Despite extensive work to find creative solutions to reduce the District's
19 shore power costs, very few options are available to the District outside of a rate adjustment.
20 SDG&E has evaluated options such as solar distributed generation, energy storage, the
21 expansion of shore power capacity, liquefied natural gas (LNG) barges, the addition of
22 circuit load (EV charging in off-hours), and even water electrolysis to power a fuel cell to

²⁹ Resolution E-4812 at 5.

1 manage the District’s demand charges if it is moved to Schedule A6-TOU. As noted earlier,
2 SDG&E hired RMI to identify possible solutions used at other ports around the world. The
3 District was also an active participant in the California Energy Commission (“CEC”) study
4 on the topics. Unfortunately, none of the solutions described above or used in other
5 locations are economically or commercially feasible for the District at this time.

6 Specifically, the comprehensive CEC study “Assessment of Clean Energy Measures for
7 California Ports,” compiled in September 2016 (CEC-500-2016-060), concluded:

8 ...limited space and existing structural constraints at the ports prevent the
9 installation of large PV and storage resources that would be required to meet
10 the capacity expansion required for upgraded shore power facilities up to 24
11 megawatts. The research team recommended the Port of San Diego to work
12 closely with San Diego Gas and Electric (SDG&E) to explore opportunities
13 for joint projects as an alternative to capacity expansion.³⁰

14 New technologies are coming to market that may help the District meet CARB
15 requirements, such as Advanced Maritime Emission Control System (AMECS), or
16 bonnets.³¹ However, these technologies must be certified for use on cruise ships before they
17 can be safely utilized. Furthermore, additional enhancements will be required for these
18 technologies to filter CO₂ emissions.

19 Given the pressing need to avoid rate shock associated with a potential transition to
20 Schedule TOU-A6, a lack of current cost-effective technical solutions, and the immaturity of
21 newer technologies, SDG&E strongly supports the Discount in the best interest of all parties.
22 The Discount is targeted, effective, manages the potentially severe economic impact to the

³⁰ California Energy Commission, “Assessment of Clean Energy Measures for California Ports” at 2, available at: <http://www.energy.ca.gov/2016publications/CEC-500-2016-060/CEC-500-2016-060.pdf>.

³¹ See <http://advancedemissioncontrol.com/> for more information about Advanced Maritime Emission Control Systems.

1 region associated with a reduction in cruise ship visits, and helps meet the State’s GHG
2 initiatives.

3 SDG&E understands that the Discount is not a long-term solution to the District’s
4 demand charge issues. For that reason, the EPP includes a request for funds to evaluate
5 opportunities for joint projects to serve as alternatives to capacity expansion. SDG&E has
6 also filed an application for an Electric Program Investment Charge (EPIC-3) project with
7 the CEC to evaluate mobile energy storage and intends to use the findings from that study to
8 inform future EMP updates. Adjusting the District’s rate for a short period of time gives
9 SDG&E time to research and investigate new technologies that may be feasible or less
10 costly by the end of the decade. Moreover, the Discount is inherently effective – it does not
11 require an investment in newer or untested technologies.

12 The details of the Discount and rate adjustment that effect that Electric Shore Power
13 Rate Proposal are described in greater detail in Cynthia Fang’s testimony in Chapter 4.

14 **IV. SDG&E’S FUNDING REQUEST**

15 Of the three proposals described above, the EE and the EPP Proposals require
16 \$6,578,660 in total incremental funding. SDG&E recommends that the Electric Shore
17 Power Rate Discount be recovered from all customers through electric and gas public
18 purpose rates. These funding requests are detailed below.

19 **A. Energy Efficiency Proposal Funding Request**

20 In this Application, SDG&E requests \$2.555 million in incremental funding for its
21 EE Proposal, as noted in the table below, and as described in further detail in the testimony
22 of Paul Pruschki (Chapter 2).³²

³² See Table PP-6 of Paul Pruschki’s testimony (Chapter 2).

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Table TC-1 EE Direct Procurement Costs by Measure Category

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

These requested funds are only for the specialized EE Proposal because the costs associated with the District’s standard EE measures will be funded through SDG&E’s existing EE portfolio, as approved by the Commission.³³

In addition, as stated in Cynthia Fang’s testimony in Chapter 4, SDG&E proposes to recover the costs of these additional specialized measures through the PPP rate component from all customers. As described in Paul Pruschki’s testimony, SDG&E is proposing to split the revenue requirement at 90% electric and 10% gas.³⁴

B. Enhanced Partnership Proposal Funding Request

The total Enhanced Partnership Proposal budget request to support both SDG&E and the District is \$5.506 million, as noted in the table below, and described in greater detail in the testimony of Julia Mendoza (Chapter 3).³⁵

³³ Therefore, no funding for the standard measures component of the EMP is being requested as part of this filing.

³⁴ This suggested split is in accordance with the authorization provided in D.14-10-046 for the 2015 EE programs.

³⁵ See Table JM-4 of Julia Mendoza’s testimony (Chapter 3).

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Table TC-2- EPP Loaded Cost Summary

Enhanced Partnership Program Loaded Cost Summary (Cost in 1,000s; Includes Loaders, Escalation)					
2019	2020	2021	2022	2023	Total
\$ 1,118	\$ 1,174	\$ 1,231	\$ 980	\$ 1,003	\$ 5,506

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Of this amount, \$2.4 million will support the District’s EPP activities for the five-year term of this EMP. The remaining budget of \$1.7 million over five years will be used by SDG&E to support the EPP. As further described in Julia Mendoza’s testimony, SDG&E is proposing to recover the costs of these additional specialized measures through the PPP rate component from all customers and split the revenue requirement at 90% electric and 10% gas per the authorization provided in Decision (D.) 14-10-046 for the 2015 EE programs.

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C. Shore Power Rate Discount Funding Request

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Cynthia Fang’s testimony describes in greater detail the proposed electric rate discount impacts over the five-year term of the EMP contract (2019 – 2023). Specifically, the estimated discount adjustment over the five-year term of the EMP contract is \$10.8 million.³⁶

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As described above, the Electric Shore Power Rate Discount Proposal is designed to meet the policy objectives of AB 628. As such, SDG&E proposes to recover the costs of the shore power rate discount through the PPP rate component from all customers, consistent with other public policy programs.

³⁶ Assumes historic usage between July 2016 and June 2017.

1 **V. WHY SHOULD THIS APPLICATION BE APPROVED?**

2 This Application warrants approval because the EMP proposals described herein are
3 designed to meet the objectives of AB 628, the broader energy objectives of the State, and
4 will help the District meet the energy targets set forth in the its CAP, as described in Section
5 I above. The EE Proposal will achieve incremental savings opportunities, identified through
6 specialized audits of the Port tidelands, thereby reducing GHG emissions and reducing the
7 amount of money District tenants will have to spend on their energy bills.

8 In addition, the Electric Shore Power Rate Discount Proposal will help bolster the
9 viability of the District’s cruise ship business by providing cost certainty and averting a
10 dramatic rate shock, which would likely have a significant impact on cruise traffic at the
11 terminal. As described in Section III above, the District, and in particular, cruise ship visits,
12 have a tremendously positive economic impact on the San Diego region. Further, as the
13 Commission acknowledged in Resolution E-4812, “[p]roviding shore-based power to
14 docked cruise ships rather than power generated from the ships’ diesel engines lowers GHG
15 and other harmful emissions and is in accordance with the California Air Resources Board
16 regulations.”³⁷

17 Further, the reduced air emissions resulting from the continued utilization of shore
18 power, rather than power generated from the ships’ diesel engine, the reduced emissions
19 resulting from the EE Proposal, along with emissions reductions resulting from other
20 proposals included in the EMP but not provided in this Application, will have a positive
21 impact on the air quality of the District and, importantly, the surrounding communities. As
22 several of the surrounding communities meet the State’s definition of “disadvantaged

³⁷ Resolution E-4812 at 7, Finding 2.

1 communities,”³⁸ SDG&E believes that finding create solutions to reduce air pollution in
2 these areas is in the best interest of the San Diego region and in line with State policy
3 objectives.

4 Although the Enhanced Partnership Proposal does not directly address AB 628
5 objectives, it provides a funding and governance vehicle necessary to implement the two
6 substantive proposals described herein, along with other EMP proposals, as the District and
7 SDG&E continue to research innovative solutions to meet the District’s energy goals and
8 promote local economic growth.

9 **VI. CONCLUSION**

10 In conclusion, the District’s EMP is designed to further many of the State’s energy
11 and environmental goals as set forth in AB 628. The EMP is designed to benefit the District
12 and its tenants, enabling the District to continue the important role that it plays in the region,
13 both economically and environmentally. In order to effectuate the proposals described
14 above, SDG&E respectfully requests approval of the following:

- 15 • Recovery of the incremental costs associated with the specialized
16 measures component of SDG&E’s EE Proposal, and the Enhanced
17 Partnership Proposal, to be recovered through PPP rates from all
18 customers.
- 19 • A transparent shore power rate discount for the District’s cruise ship
20 terminal account to support the AB 628 goal of port economic

³⁸ See CalEnviroScreen 3.0, California Environmental Protection Agency (CalEPA), available at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30> (ranking the surrounding communities in the top 25% of disadvantaged communities).

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development, to be recovered from customers through PPP rates from

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all customers.

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1 **VII. STATEMENT OF QUALIFICATIONS**

2 My name is Todd Cahill and my business address is 8315 Century Park Court, San
3 Diego, California 92123. I am the Director of Business Services for San Diego Gas and
4 Electric (“SDG&E”). My primary responsibilities include all customer service-related
5 activities and relationships with SDG&E’s business customers and community. I began
6 work at SDG&E in 2002 as a Regulatory Analyst and have held positions of increasing
7 responsibility.

8 In 1998, I graduated from Brigham Young University with a Bachelor of Arts in
9 Political Science. I also received an MBA from San Diego State University in 2012.

10 I have previously submitted testimony before the California Public Utilities
11 Commission.

12 This concludes my prepared direct testimony.