Application: A.19-10-___

Exhibit No.: SDG&E-__

Witness: Brittany Applestein Syz

PREPARED DIRECT TESTIMONY OF

BRITTANY APPLESTEIN SYZ

ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

CHAPTER 1 – POLICY

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

OCTOBER 28, 2019

TABLE OF CONTENTS

PREPARED DIRECT TESTIMONY
OF BRITTANY APPLESTEIN SYZ
CHAPTER 1 – POLICY

I. INTRODUCTION

In January 2016, San Diego Gas and Electric Company ("SDG&E") received approval from the California Public Utilities Commission ("Commission") in Decision ("D.") 16-01-045 to implement the Power Your Drive Pilot ("PYD Pilot" or "Pilot").[1] The PYD Pilot is an electric vehicle ("EV") charging infrastructure pilot designed to allow SDG&E to install EV charging infrastructure at multi-unit dwellings ("MUDs") and workplaces. Installing charging ports[2] in these market segments removes barriers for those who lack access to home charging, and due to the longer dwell times associated with such locations, they also provide opportunities for managed charging. SDG&E has designed and installed over 3,000 charging ports as part of the PYD Pilot.

However, customer demand for charging infrastructure and equipment installed by SDG&E has exceeded the size of the Pilot. Hundreds of potential site hosts remain on the PYD Pilot interest list and several existing PYD customers have requested additional ports. Due to the completion of the PYD Pilot, SDG&E is unable to fulfill this existing demand for charging infrastructure at MUDs and workplaces—sites where drivers often cannot access EV charging. Accordingly, SDG&E submits this application seeking Commission approval to extend and

---

[1] *Decision Regarding Underlying Vehicle Grid Integration Application and Motion to Adopt Settlement Agreement.* The PYD Pilot was submitted in Application ("A.") 14-04-014. Originally known as the Vehicle Grid Integration ("VGI") Pilot proposal, the program was modified by a settlement which was modified and approved by D.16-01-045. SDG&E accepted the Commission's program modifications and has since renamed it Power Your Drive.

[2] A port refers to the nozzle or plug that is inserted into the electric vehicle whereas a charging station refers to the larger unit including the port(s) and supporting structure and cord(s). A charging station may have one or two ports. *See also*, EV Supply Equipment ("EVSE") definition at BAS-5, n.6, *infra*.

modify the PYD Pilot through a follow-on Power Your Drive Extension Program ("PYD Extension Program" or "Program"). The PYD Extension Program will serve as a bridge to satisfy a portion of the existing demand. This modestly-sized program is scoped and designed to find a balance between the immediate need to support customers and environmental goals while also waiting for final Commission guidance on a new transportation electrification framework ("TEF").

The PYD Pilot is a successful first of its kind EV infrastructure program that focuses on encouraging EV adoption by reducing barriers such as the expense and difficulty of installing charging equipment for key, underserved customer segments. Through the PYD Pilot, SDG&E provided not only the charging infrastructure, but also design and construction expertise and education at low or no cost to over 250 MUD and workplace sites in San Diego County and southern Orange County. The Pilot has increased access to EV charging equipment and supports state and local goals to accelerate transportation electrification ("TE") and reduce greenhouse gas ("GHG") emissions. The PYD Pilot also offers an innovative day-ahead hourly dynamic Vehicle Grid Integrated rate ("VGI rate") that incentivizes drivers to charge their vehicles during periods of low grid demand and/or high renewable energy generation, integrating new EV electric load and further supporting California's ambitious climate change and air quality goals.

To build upon the success of the PYD Pilot, SDG&E requests authority to deploy approximately 2,000 additional Level 2 charging ports[3] over two years through the PYD Extension Program. The PYD Extension Program is modeled on the PYD Pilot as approved in

[3] Level 2 charging requires a 208 or 240 volt AC power connection, and is discussed in more detail on the United States Department of Energy website. *See* Office of Energy Efficiency & Renewable Energy, *Charging at Home*, *available at:* https://www.energy.gov/eere/electricvehicles/charging-home.

D.16-01-045, with a few modifications. Where modifications are proposed here, they reflect stakeholder feedback and lessons learned in the PYD Pilot and are intended to simplify program implementation, further attract customers, and continue to leverage and promote the private market.

Timely approval of this application is necessary to continue the success and momentum of the PYD Pilot. There are hundreds of potential site hosts remaining on the PYD Pilot interest list who reflect existing unmet demand for SDG&E-installed charging equipment. A substantial time gap between the close of the PYD Pilot and approval of an extension may result in interested site hosts dropping off the PYD Pilot interest list, reducing the benefit of the outreach, marketing, and technical development conducted by SDG&E for the PYD Pilot.

SDG&E has served, concurrently with this application, the following prepared direct testimony in support of the PYD Extension Program:[4]

- Chapter 1: Policy – (Brittany Applestein Syz) provides an overview of the PYD Extension Program and describes how the Program supports state policy;
- Chapter 2: Program Design – (Randy Schimka) describes the design details of the Program;
- Chapter 3: Program Costs – (John Black) describes the costs associated with the Program;
- Chapter 4: Bill Impacts – (Jennifer Montanez) describes the bill impacts of the Program;

[4] References to "testimony" herein are to the prepared direct testimony served in support of this application.

- Chapter 5: Revenue Requirement – (Casey Butler) identifies the revenue requirement costs associated with the Program, describes the methodology used by SDG&E in determining the revenue requirements, and identifies the resulting annual revenue requirements; and
- Chapter 6: Regulatory Accounts – (Jenny Phan) describes the balancing account requested for recovering the costs related to the Program.

II. THE PROGRAM WILL CONTINUE THE SUCCESS OF THE PYD PILOT

In 2014, SDG&E identified the need to promote TE, test innovative rates, design, and implement a program to learn lessons through deploying a first of its kind infrastructure program, and to give customers the means to improve their local air quality and fight climate change. SDG&E filed the original PYD Pilot proposal on April 11, 2014 in A.14-04-014. During adjudication of that application, a multi-party settlement was submitted that modified certain aspects of the original proposal.[5] D.16-01-045 modified the settlement proposal by reducing the size and budget of SDG&E's original PYD Pilot proposal and making certain program changes.

Through the PYD Pilot, SDG&E successfully installed Level 2 EV charging equipment in MUDs and workplaces with SDG&E owning and maintaining all EV charging stations (also

[5] A.14-04-014, *Joint Motion for Adoption of Settlement Agreement* (June 3, 2015).

known as EVSE[6]), and associated electrical infrastructure (the "make-ready"[7]). The PYD Pilot offers two billing options. Under the Rate-to-Driver option, SDG&E directly bills the driver with no intermediary. In the Rate-to-Host option, SDG&E directly bills the site host who may cover the cost of the charging or pass the cost on to drivers. All PYD Pilot facilities are billed on the dynamic hourly VGI rate.

D.16-01-045 reduced the original proposal to deploy 5,500 ports to 3,000 ports. This decision approving the PYD Pilot directed SDG&E to request funding for any additional ports in a subsequent application.[8]

Today, more than five years after SDG&E filed the original PYD Pilot application, it has become clear that a transformation to the transportation market must occur to meet California's environmental goals. This sentiment has been echoed repeatedly by environmental organizations, environmental justice advocates, and the scientific community, as well as being codified by the state legislature. Widespread TE must be accelerated across all vehicle segments if California is to meet its climate goals. At this phase of EV adoption, providing readily accessible EVSE at workplaces and MUDs is necessary to help accelerate the market. Charging availability at these highly visible and convenient locations will send a signal to drivers that owning and operating an EV is within reach.

---

[6] D.16-01-045 (at 12, n.12) defines EVSE as "The conductors, including the ungrounded, grounded, and equipment grounding conductors, the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatuses installed specifically for the purpose of delivering energy from the premises wiring to the electric vehicle," *citing from* A.14-04-014, Exhibit SDG&E-8 at 4, footnote 6; Proposed Settlement, § II. Definitions; and Cal. Health & Safety Code § 44268(d).

[7] Make-ready generally refers to the infrastructure from the power source (distribution system) to the charging station / EVSE, but does not include the charging station / EVSE. Examples of items typically included in make-ready infrastructure include trench/refill/repair, conduit, conductor, electric panel/meter, and transformer.

[8] D.16-01-045 at 156.

This application is a modest extension of the PYD Pilot intended to keep the momentum of the Pilot and to recognize the urgent and immediate need to accelerate TE. Additionally, the scope and size of this application was designed in anticipation of further guidance from the Commission through the TEF. SDG&E anticipates the need to deploy additional infrastructure in the future to support California's goals, and it will do so in alignment with the direction provided in the TEF. To that end, SDG&E looks forward to continuing to engage and collaborate with stakeholders, customers, and the Commission in finding solutions to advance California's goals and support EV and GHG reduction mandates.

SDG&E and California regulators have blazed the trail forward by authorizing electric utilities to deploy EV charging options through utility programs that have the ability to transform how Californians commute. It is not by accident that California leads the way in EV sales. Nor is it by chance that other states look to California elected officials and regulators to determine if they should allow their utilities to implement EV programs or, alternatively, if they should sit on the sideline and hope the market matures over time.

A. PYD Pilot Results – Successful Adoption, but an Unfulfilled Demand for More Chargers

Increasing the availability of charging infrastructure at MUDs and workplaces is critical to reducing the barriers to EV ownership, particularly for customers who do not live in owner-occupied single-family homes and cannot easily install charging equipment at their own homes. In this regard, the PYD Pilot successfully deployed charging infrastructure resulting in over 3,000 installed Level 2 EVSE ports. The PYD Pilot installations increased the visibility of EV charging equipment in SDG&E's service territory, helping to reassure potential EV drivers that charging options are available and that range anxiety is not a barrier to driving an EV. SDG&E also conducted marketing, education, and outreach as part of the PYD Pilot, which further

increased the visibility of EV charging infrastructure in SDG&E's service territory and highlighted the benefits of driving electric.[9] The combination of new, visible charging infrastructure and SDG&E's outreach has been effective at driving EV adoption, with SDG&E data suggesting that forty-three percent (43%) of PYD Pilot participants adopted their EV after PYD Pilot charging equipment was installed at their residence or workplace.[10] The EVSE deployed as part of the PYD Pilot will continue to be maintained by SDG&E. The EVSE will support current EV drivers, provide charging options for those considering an EV, and continue to serve new EV drivers who purchase or lease an EV when selecting their next vehicle.

Importantly, the PYD Pilot successfully reached difficult market segments that are underserved by EV charging infrastructure. MUDs are a difficult market segment for several reasons. First, they often request a smaller number of ports at a site – which raises the cost per charging port. Second, there is a disconnect between residents that do not own their dwelling, who may want access to charging, and building owners and managers who bear the cost of installation. Despite these challenges, thirty-nine percent (39%) of PYD Pilot sites are located at MUDs.[11] The turnkey simplicity of utility EVSE ownership is key to the PYD Pilot's success at reaching MUD customers because it reduces the expense and difficulty of installing and maintaining EV charging ports for building owners and managers.

---

[9] Rulemaking ("R.") 13-11-007, Electric Vehicle-Grid Integration Pilot Program ("Power Your Drive") Seventh Semi-Annual Report of San Diego Gas & Electric Company (September 20, 2019) ("PYD Seventh Semi-Annual Report") at 4.

[10] *Id.* at 13.

[11] PYD Seventh Semi-Annual Report at 2.

Similarly, the barriers to EV charging are especially pronounced in Disadvantaged Communities ("DAC") sites,[12] also referred to as communities of concern. Over thirty percent of PYD Pilot sites are in these communities. This far exceeds the PYD Pilot's original target of deploying 10% of sites in DACs.[13] Since Senate Bill ("SB") 350 states that "widespread transportation electrification requires increased access for disadvantaged communities, [and] low- and moderate-income communities," this success at reaching communities of concern is a significant step towards electrification for all, a state policy goal.[14]

The PYD Pilot also supports California's goal to reduce GHG emissions. PYD Pilot participants have driven over four million zero-emission miles, a number that will only grow as more drivers adopt EVs and PYD Pilot charging equipment remains in service for years to come.[15] In addition to reducing gasoline consumption by incentivizing customers to switch to EVs, the PYD Pilot has also reduced GHG emissions associated with the electricity used by drivers charging at PYD sites through the use of a dynamic rate that encourages participants to charge when renewable electricity generation is high. Seventy-eight percent (78%) of PYD Pilot electricity usage is from renewable sources, higher than SDG&E's overall generation mix[16] and nearly twice the statewide average.[17]

---

[12] Disadvantaged Communities are defined as the top quartile of census tracts as identified by the CalEnviroScreen 3.0 tool on a *utility-wide basis*, as directed in D.16-01-045 at 138 and Attachment 2. This service territory methodology allows SDG&E to target investments in the most impacted communities in SDG&E's service territory, as shown in Advice Letter 2876-E (approved April 28, 2016 and effective March 31, 2016) at 1-2 and Attachments A and B.

[13] D.16-01-045 at 164.

[14] SB 350, Stats. 2015-2016, Ch. 547 (2015). *See also* Cal. Pub. Util. Code § 740.12(a)(1)(C).

[15] PYD Seventh Semi-Annual Report at p. 13.

[16] *Id.* at p. 13.

[17] California Energy Commission, *Total System Electric Generation, available at:* https://ww2.energy.ca.gov/almanac/electricity_data/total_system_power.html.

B. Lessons Learned

SDG&E gained valuable knowledge and experience through the implementation of the PYD Pilot. The PYD Pilot was SDG&E's first EV charging infrastructure program to serve customers and was the first large-scale deployment of charging infrastructure by a California investor-owned utility ("IOU"). Through implementing the PYD Pilot and other TE programs, SDG&E has acquired unprecedented real-world experience in designing, administering, constructing, and installing EV infrastructure programs.[18]

SDG&E incorporated its experiences from early customer sites and refined implementation of the PYD Pilot over time. As the PYD Pilot was being implemented, the site agreement process was simplified, site design was shifted to begin after certain customer requirements were met, and construction projects were released in batches rather than one at a time.[19] Some of the challenges of the PYD Pilot were related to setting up the Pilot; the PYD Extension Program will leverage the lessons learned during the initial set up of the program and the refinements developed throughout the Pilot, improving the overall operation of subsequent programs.

The PYD Pilot has been a valuable and necessary tool in advancing California's GHG reduction and air quality goals. Demand for charging equipment exceeds the scope of the PYD Pilot, showing that customers are eager for SDG&E to install charging equipment and reduce the barriers to driving electric. Without an extension program to continue the success and to harness the momentum of the PYD Pilot, this customer demand may go unmet. The PYD Extension

---

[18] Other TE programs SDG&E has approved or pending before the Commission are: the Priority Review Projects (A.17-01-020, *approved in* D.18-01-024), the Medium-Duty/Heavy-Duty EV Infrastructure Program (A.18-01-012, *approved in* D.19-08-026), and the Schools, State Parks and Beaches, and City and County Parks Pilots (A.18-07-023, *pending*).

[19] PYD Fifth Semi-Annual Report at Attachment A, p. 17.

Program is intended to continue the progress made in the PYD Pilot and extend its benefits to additional customers who otherwise might not have access to regular charging facilities. Commission approval of the Program will capitalize on the momentum achieved through the PYD Pilot and satisfy customer demand. This bridge program will help meet some of the immediate demand. However, a longer-term comprehensive approach will be informed by the Commission's TEF.

III. OVERVIEW OF THE PYD EXTENSION PROGRAM

A. Program Summary

The PYD Extension Program retains most features of the PYD Pilot. Like the Pilot, the PYD Extension Program allows installation of Level 2 charging ports at workplaces and MUDs, locations where employees and residents park their vehicles for long periods of time on a regular basis. The PYD Extension Program provides for installation of approximately 2,000 charging ports at roughly 200 sites over two years.

The turnkey convenience of utility end-to-end ownership of the make-ready infrastructure and EVSE contributed to the success of the PYD Pilot in attracting difficult to reach MUDs, and in the PYD Extension Program SDG&E will similarly install, maintain, and own the end-to-end infrastructure for MUD sites. The PYD Extension Program will have a minimum target of 25% of sites in MUDs.[20] However, for workplace sites, SDG&E will install, maintain, and own the make-ready infrastructure while the site host will install, maintain, and own the EVSE. Workplace site hosts will receive a rebate to offset the cost of the EVSE. This represents a change from the PYD Pilot, where SDG&E was responsible for installing, maintaining, and owning the end-to-end infrastructure, including the charger, at both MUD and workplace sites.

[20] Target refers to a percentage of sites rather than a percentage of charging ports.

SDG&E strongly supports increasing access to EVs for all Californians, particularly those in communities of concern. SDG&E proposes to use the same DAC criteria and definition as the PYD Pilot, with a minimum target of 10% of PYD Extension Program sites in DACs.[21] SDG&E hopes to significantly exceed this threshold, as it did in the PYD Pilot. Using the same DAC definition for the PYD Extension Program will allow for continuity of the PYD Pilot in a more seamless manner. Further, it will avoid confusion among potential site hosts on the PYD Pilot interest list and not frustrate customer expectations by disqualifying them from important provisions of the PYD Pilot which made it a success. The proposed PYD Extension Program should retain consistency with the PYD Pilot so as not to negatively impact customers who have been awaiting infrastructure in communities of concern upon approval of an extension program.

This application seeks approval for a revenue requirement of $125.6 million over the years 2021 through 2084, as described in the testimony of Casey Butler. Full details of the PYD Extension Program are given in the testimony of Randy Schimka. Cost details of the Program are described in the testimony of John Black, and the proposed cost recovery is described in the testimony of Jenny Phan.

The following table shows the basic elements of the PYD Pilot and the extent to which they are reflected or modified in the PYD Extension Program.

[21] Target refers to a percentage of sites rather than a percentage of charging ports. Disadvantaged Communities are defined as the top quartile of census tracts as identified by the CalEnviroScreen tool on a *utility-wide basis*, as directed in D.16-01-045 at 138 and Attachment 2.

Table 1-1: Comparison Between the PYD Pilot and the PYD Extension Program

	PYD Pilot	PYD Extension
Customer Segment:	MUDs and workplaces	MUDs and workplaces
Size:	3,040 ports installed at 254 sites	Approximately 2,000 ports at 200 sites[22]
DAC Target:	10% Target	10% Target
EVSE Ownership / Maintenance:	Utility ownership	Utility ownership in MUDs; customer ownership in workplaces
DAC Definition:	SDG&E Territory, or State, whichever is broader[23]	SDG&E Territory, or State, whichever is broader
Workplace EVSE Rebate:	n/a	Up to $3,000/port
Participation Payments in Non-DAC MUD:	$235/port	$350/port
Rate Options:	VGI Rate	Defaulted to Modified VGI Rate for MUDs, Modified VGI Rate or C&I Rate for Workplaces

B. The Program Aligns with SDG&E's Broader Transportation Electrification Portfolio

The PYD Extension Program aligns with SDGE's broader TE portfolio. Beyond the PYD Pilot, SDG&E is in the process of deploying charging infrastructure through the SB 350 Priority Review Projects ("PRPs"),[24] and recently received Commission approval to provide charging infrastructure for medium-duty and heavy-duty ("MD/HD") EVs.[25] SDG&E's Schools,

[22] Port and site count in table does not include one testing and training site that may be constructed in conjunction with the Program.

[23] D.16-01-045 at 173.

[24] *See* D.18-01-024.

[25] *See* D.19-08-026.

Parks, and Beaches application is currently pending before the Commission and upon approval will provide charging ports at visible community locations such as schools and parks.[26] SDG&E is also partnering with local dealerships to educate and incentivize salespeople to sell or lease EVs with the Dealership Incentives PRP.

Through these diverse projects, SDG&E continues to gain insights into the EV market and its specific customer segments, as well as learn how to implement TE programs. However, there remains significant unmet need for widespread charging infrastructure in MUDs and workplaces to satisfy existing demand and to meet emissions goals. The PYD Extension Program is intended to partially fill this unmet need by continuing a successful program and complimenting other SDG&E TE programs and public and private third-party investment.

IV. PYD EXTENSION PROGRAM SUPPORTS IMPORTANT STATE GOALS

A. The Program Supports Transportation Electrification

Plainly stated, California will not meet its GHG reduction goals without significant TE. SDG&E TE programs, including the PYD Extension Program, support the numerous California policies and statutes calling for TE. SB 32 requires California GHG emissions to be reduced to 40% below 1990 levels by 2030, which will require large-scale emissions reductions in the transportation sector.[27] SB 375 requires the San Diego region to cut its per capita GHG emissions by 19% of 2005 levels by 2035.[28] Since transportation accounts for a higher

---

[26] *See* A.18-07-023, *Application of … [SDG&E] for Approval of Assembly Bill 1082 and 1083, and Senate Bill 350, Transportation Electrification Proposals Regarding Schools, State Parks and Beaches, and City and County Parks* (July 30, 2018).

[27] SB 32, Stats. 2015-2016, Ch. 249 (2016).

[28] SB 375, Stats. 2007-2008, Ch. 728 (2008). *See also* California Air Resources Board, *SB 375 Regional Plan Climate Targets, available at:* https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets.

proportion of GHG emissions in the San Diego region than the state overall, TE in SDG&E's service territory is particularly vital to meeting state and regional climate goals.

Further reflecting the urgency of TE, SB 1275 sets a target of one million zero-emission vehicles ("ZEVs")[29] on California roads by 2023.[30] SB 350 sets further statewide GHG reduction targets and directs California utilities to pursue infrastructure programs to support EVs.[31] SB 350 also emphasizes the importance of increased access to TE for DACs and low and moderate-income communities.[32] Utilities have a unique ability to deploy charging infrastructure in DACs and other communities of concern, increasing access to electric driving for all. Providing EV charging infrastructure to all customers is within the core competencies of electric utilities. It is similar to providing infrastructure for any and all electricity end-uses. This public service fits into the core role of electric utilities and is a natural extension of the utility's obligation to serve.

The Governor's Executive Order ("EO") B-48-18 set a goal of 5 million ZEVs in the state by 2030, which amounts to approximately 500,000 ZEVs in SDG&E's service territory by 2030.[33] As of October 2019, there are approximately 45,000 light-duty plug-in EVs in SDG&E's service territory.[34] To ensure California meets its goals, the region must increase the number of ZEVs by more than tenfold in a decade by adding over 450,000 ZEVs. Infrastructure

---

[29] ZEV refers to zero-emission vehicle which includes electric vehicles, hydrogen fuel cell vehicles and other non-emitting vehicles. The current number of ZEVs in the state that are not EVs is trivial.

[30] SB 1275, Stats. 2013-2014, Ch. 530 (2014).

[31] SB 350, Stats. 2015-2016, Ch. 547 (2015).

[32] *Id.*

[33] SDG&E provides electric service to approximately 10% of the state population.

[34] Cleantech San Diego, *The Electric Vehicle Industry in San Diego: Driving Us All Toward a Cleaner Future, available at:* http://cleantechsandiego.org/electric-vehicles/.

is essential to creating the consumer confidence and convenience necessary to support the market for EV sales and for the EVSE / EVSP market.

EO B-48-18 further supports TE by setting a statewide target of 250,000 charging ports installed by 2025.[35] Encouraging EV demand and deploying charging infrastructure sufficient to comply with the goals of EO B-48-18 will require greater access to charging infrastructure, a need that the PYD Expansion Program will help fulfill. Furthermore, EO B-55-18 sets the goal of achieving statewide carbon neutrality by 2045, which also requires steep emissions reductions in the transportation sector and charging infrastructure for well over five million ZEVs.[36] Agency regulation and planning in support of these state goals includes the interagency Zero Emission Vehicle Action Plan of 2013, which was updated in 2016 and 2018, the California Air Resources Board ("CARB") 2017 Climate Change Scoping Plan, and the California Department of Transportation ("Caltrans") California Transportation Plan 2040.

B. The Program Supports the State's Carbon Reduction Goals

According to CARB the transportation sector is the greatest contributor to California's GHG emissions, meaning that widespread transportation electrification is vital to achieving California's climate goals. CARB has concluded that emissions from the transportation sector have continued to rise, increasing by 1.1 million metric tons of carbon dioxide equivalent

---

[35] Office of Governor Edmund G. Brown Jr., *Governor Brown Takes Action to Increase Zero-Emission Vehicles, Fund New Climate Investments* (January 26, 2018), *available at:* https://www.ca.gov/archive/gov39/2018/01/26/governor-brown-takes-action-to-increase-zero-emission-vehicles-fund-new-climate-investments/index.html.

[36] Executive Department, State of California, Executive Order B-55-18 to Achieve Carbon Neutrality, *available at:* https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf.

("CO_2e") from 2016 to 2017 alone, or 39% to 41% of state GHG emissions.[37] At approximately 50%, the percentage of GHG emissions from transportation is even higher in SDG&E's service territory than the state overall,[38] and on-road transportation accounts for 53% of GHG emissions in the City of San Diego.[39] Accordingly, the need to electrify transportation is particularly acute in SDG&E's service territory.

The PYD Extension Program is a key part of the solution to reduce GHG emissions in both the San Diego region and California overall. While the number of EV models on the market has risen, charging infrastructure remains a barrier to mass EV adoption. A recent poll found that 61% of non-EV drivers identified access to charging infrastructure as the most significant obstacle to purchasing an EV, ahead of price and unfamiliarity.[40] By installing visible charging infrastructure at residences and workplaces, the PYD Extension Program will give more drivers the confidence that charging options are available, encouraging them to adopt EVs.

V. THE PYD EXTENSION PROGRAM MEETS THE REQUIREMENTS OF THE ASSIGNED COMMISSIONER'S RULING

As noted above, SB 350 directs utilities to pursue TE as a means to meet GHG emissions reduction goals. The PYD Extension Program meets the statutory requirements and supports the

---

[37] *See* California Air Resources Board, *California Greenhouse Gas Emission Inventory - 2019 Edition*, *available at:* https://www.arb.ca.gov/cc/inventory/data/data.htm. *Compare with* California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2016, Trends of Emissions and Other Indicators* at 4, Figure 3, *available at:* https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16a.pdf.

[38] Energy Policy Initiatives Center and University of San Diego School of Law, *Appendix D, 2012 Greenhouse Gas Emissions Inventory and Projections for the San Diego Region* (August 2015) at 2, *available at:* http://www.sdforward.com/pdfs/Final_PDFs/AppendixD.pdf. Approximately 92% of SDG&E customers reside in San Diego County.

[39] The City of San Diego, *Climate Action Plan 2018 Annual Report Appendix* (October 2018), at Supplemental Documentation, Greenhouse Gas Emissions Inventory Methodology and Updates, p. 3, *available at:* https://www.sandiego.gov/sites/default/files/city_of_san_diego_appendix_for_2018_cap_annual_report.pdf.

[40] Volvo, *The State of Electric Vehicles in America* (February 26, 2019) at 4, *available at:* https://www.media.volvocars.com/us/en-us/download/249123.

regulatory guidelines set forth in the September 14, 2016 Assigned Commissioner's Ruling ("ACR") governing the Commission's implementation of SB 350.[41]

A. Statutory Requirements set Forth in the ACR[42]

Table 1-2

Statutory Requirements	SDG&E's PYD Extension Program
Acceleration of Widespread TE (Consistent with PUC Code §§740.12(b) and 701.1(a)(1))	SDG&E's proposal will reduce dependence on petroleum, help meet air quality standards, and reduce GHG emissions by accelerating widespread adoption of TE. The proposal will accelerate widespread TE by reducing the upfront cost of infrastructure and making TE more affordable.
Findings/Declarations set forth in §740.12(a)(1) (Consistent with PUC Code §740.12(a)(2) and (b))	SDG&E's proposal will help reduce petroleum use, meet air quality standards, improve public health, and support the state's GHG reduction goals. The proposal will encourage TE as a means to achieve ambient air quality standards and the state's climate goals. The proposal will help reduce GHGs and local air pollution. Local pollutants have harmful health impacts, especially in disadvantaged communities, that can be reduced under this proposal.
Minimize Overall Costs and Maximize Overall Benefits (Consistent with PUC Code §740.12(b))	SDG&E's proposal seeks to minimize overall costs and maximize overall benefits. SDG&E will minimize costs by utilizing a competitive solicitation and leveraging lessons learned from the PYD Pilot. The PYD Extension Program limits utility ownership of EVSE to specific market segments. Participation payments will help offset the PYD Extension Program's costs. Participants will be required to take service on the VGI rate or an applicable time-of-use ("TOU") rate, which is intended to reduce peak loads and promote the use of renewable resources.
Cost Recovery Mechanism (Consistent with PUC Code §740.12(b))	SDG&E proposes a two-way balancing account. Details are provided in the testimony of Jenny Phan.
Does Not Unfairly Compete with Non-Utility Enterprises (Consistent with PUC Code §§740.12(b) and 740.3)	SDG&E's proposal does not unfairly compete with non-utility enterprises. The PYD Extension Program is reasonable in size and scope and will not result in unfair competition. The Program targets a modest deployment of approximately 2,000 charging ports. However,

[41] R.13-11-007, Assigned Commissioner's Ruling Regarding the Filing of the Transportation Electrification Applications Pursuant to Senate Bill 350 (September 14, 2016).

[42] *Id.* at 14-15.

	additional charging ports will be needed if California is to meet EO B-48-18 and other state goals in SDG&E's service territory by 2025. The Program will help accelerate TE and create opportunities for all stakeholders. The Program will utilize a competitive solicitation process to qualify equipment and create new opportunities for industry stakeholders.
Performance Accountability Measures (Consistent with PUC Code §740.12(b))	SDG&E's proposal includes performance accountability measures such as reporting to the Program Advisory Council ("PAC") and annual reports to the Commission. This is in addition to the Commission's general oversight ability and reporting requirements set by the Commission in this and other TE applications.
Interest of Ratepayers (Consistent with PUC Code §§740.12(b), 740.8, 740.3)	SDG&E's proposal is in the interest of ratepayers. By encouraging EV adoption the Program will improve the energy efficiency of travel, reduce negative health and environmental impacts from air pollution, support improved use of the grid by adding flexible load, reduce GHGs, and promote the development of infrastructure to support EVs.
Avoids Long-Term Stranded Costs (Consistent with PUC Code §740.12(c))	SDG&E's proposal mitigates the possibility of long-term stranded costs through program design. To be eligible for the program, customers must commit to hosting and utilizing the infrastructure for the length of the contractual term. SDG&E will maintain the utility-owned infrastructure. For the customer-owned charging ports, SDG&E will contractually require that the customer maintain them in working order and make them accessible to EV drivers.

B. Additional ACR Regulatory Guidelines

The ACR states that TE applications should "seek to conform" to additional guidelines but does not require conformance as a condition of submittal or approval of an application.[43] Due to the time which has elapsed between the issuance of the ACR and this application, the prepared direct testimony focuses on the more pertinent guidelines and addresses them in Table 1-3 below.

[43] *Id.* at 15.

Table 1-3	
Regulatory Guidelines	SDG&E's PYD Extension Program
Fit with the Commission's and IOU Core Competencies and Capabilities	SDG&E's core competencies include providing safe and reliable energy and infrastructure to customers, strong customer service, and providing safe and reliable interconnection to the distribution grid. The PYD Extension Program will leverage IOU core competencies, including experience in TE programs, to reliably integrate new EV load, incentivize managed charging to reduce customer fueling costs, and provide a positive customer experience.
Multiple Goals of Widespread TE	The PYD Extension Program supports the goals of Assembly Bill ("AB") 32, SB 32, SB 375, SB 1275, SB 350, and EO B-16-2012, B-48-18, and B-55-18.
Competition Concerns	The PYD Extension Program benefits stakeholders, is sized to meet a small percentage of the charging infrastructure need in the San Diego region, supports markets, and increases opportunities for market participants by encouraging EV adoption. To further promote competition, SDG&E will not own the EVSE in the workplace segment.
Safety is a Priority	SDG&E's safety efforts include complying with applicable safety requirements, complying with the Commission's Safety Checklist, utilizing certified equipment, and compliance with electrical standards. Installations will be designed in compliance with applicable codes. Additional detail regarding installation and maintenance is provided in the testimony of Randy Schimka.
Future Opportunities / Scalability	The PYD Extension Program is an example of how programs can be scaled and modified to meet California's clean transportation goals. This bridge application exemplifies how programs can be modified to respond to the stakeholder process and lessons learned.

VI. CONCLUSION

By increasing the number of charging ports available in workplace and MUD locations in the SDG&E region, the modest PYD Extension Program will support California and regional environmental, energy, and transportation policy goals and increase access to EV charging for all. SDG&E respectfully requests timely approval so that additional customers, including those on the PYD Pilot interest list, can be supported through SDG&E's TE programs.

This concludes my prepared direct testimony.

VII. STATEMENT OF QUALIFICATIONS

My name is Brittany Applestein Syz and I am the Director of Clean Transportation for SDG&E. I oversee the company's Clean Transportation department. My business address is 8306 Century Park Court, San Diego, California, 92123. I have held this position for approximately one year. Prior to this role I was Senior Legal Counsel for SDG&E for three and a half years. I received my undergraduate degree in English Literature at Harvard University, a master's degree from the London School of Economics, and a Juris Doctor from the University of California, Hastings School of Law. I am an active member of The State Bar of California.

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