

CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023

1. This data request is issued regarding proposed recommendations of the electric and gas investor-owned utilities (IOU) to limit cost and rate increases consistent with the state’s energy and environmental goals for reducing greenhouse gases, pursuant to Public Utilities Code Section 913.1 which requires the utilities to:

“...study and report to the commission on measures that they recommend be undertaken to limit costs and rate increases.”

In preparing your utility’s response, the IOU should be as specific as possible in identifying and quantifying specific potential cost savings initiatives.¹

The data provided in the response will be included in its entirety in an appendix to the 2023 SB 695 Report.

SDG&E Response to 1:

I. Introduction

San Diego Gas & Electric Company (SDG&E) appreciates the opportunity to respond to the California Public Utilities Commission (CPUC or Commission) Energy Division on compliance with Public Utilities Code Section 913.1, which annually requires that the utilities:

“...study and report to the commission on measures that they recommend be undertaken to limit costs and rate increases.”²

In Section II below, SDG&E reports to the Commission on measures we recommend should be undertaken to limit costs and rate increases.

II. Recommendations to the CPUC and Legislature

A. Opening Comments

California’s Energy Landscape is Changing Rapidly

The rapidly changing energy environment in California is driving the need for a comprehensive and holistic renewed focus on the fundamentals surrounding the ratemaking process. The guiding principles needed to meet the state’s climate goals require balancing customer choice and economically efficient decisions at all levels, which are critical to providing affordable rates that benefit the grid and all customers. A combination of equity, transparency, and comprehensive customer education are necessary

¹ Data reflecting rates trends, cost recovery mechanisms, types of cost recovery proceedings, and other data non-specific to studying and reporting on measures recommended to limit cost and rate increases should not be included, except to the extent that such data directly supports the recommendations.

² Public Utilities Code Section 913.1(b).

CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023

to help ensure all ratepayers have access to safe, reliable, and affordable choices in a sustainable energy market.

Senate Bill (SB) 100 requires 100% of California retail electricity sales to be generated by renewable, carbon-free sources by 2045. To achieve this aggressive shared goal, it is imperative for California to take advantage of all available economic resources to increase affordability while maintaining a safe and reliable electric grid for all customers. Changes to residential rate design will be critical to support a more equitable structure and help enable our collective environmental goals. Current rate design not only depends on ratepayers to finance this transition, but also ties customer contributions to current and future grid needs to their kWh usage, a metric which does not capture the nature of these costs or affordability concerns.

Assembly Bill (AB) 205 recognized the need for residential rate reform by requiring an income-graduated fixed charge for default residential rates to be developed by July 2024. The Commission responded to this legislation by opening the Order Instituting Rulemaking to Advance Demand Flexibility Through Electric Rates, Rulemaking (R.) 22-07-005, which is scoped to reform the residential rate design principles as well as develop the default residential fixed charge structure required by AB 205.

The Current Volumetric Rate Structure is a Barrier to Decarbonization and Affordability, and Requires Significant Reform

The California Legislature has recognized the need to update the existing electricity pricing structure by passing AB 205. The current volumetric residential rate structure prioritizes overall electricity conservation as an emission reduction strategy through a “tiered” default residential rate structure. Customers pay the same amount for each kilowatt-hour (kWh) they consume up to a threshold and then pay a higher rate for any energy consumption above that threshold. However, electrification has increasingly become a central policy priority and strategy for decarbonization. Beneficial electricity consumption from fuel switching (gas to electric) results in decreased emissions. The transportation and building sectors are a primary example of the impact of fuel switching and together account for approximately 45%³ of statewide greenhouse gas (GHG) emissions. Replacing fossil fuel technologies with electric technologies in these sectors will lead to decreased emissions in the near and long term as California’s retail electricity mix moves towards 100% carbon-free generation. In order to make switching to electric technologies affordable, electric rates must be dramatically reduced. Reaching this level requires a significant departure from current residential rate design and reforms that reflect the scale of change California’s energy system is currently seeing.

Maintaining a largely volumetric rate structure will contribute to increasing affordability concerns. Because a large share of SDG&E’s costs are fixed, SDG&E’s current volumetric rates do not reflect cost causation principles and do not send customers the right price signals. Higher-usage customers, such as those in non-coastal climate zones with warmer average temperatures, customers with poor or outdated insulation in their homes, or customers that cannot install distributed generation resources pay a higher share of SDG&E’s fixed cost. Whereas lower-usage customers, such as coastal customers in more

³ [California Greenhouse Gas Emissions for 2000 to 2020 Trends of Emissions and Other Indicators](#)

CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023

moderate climate zones, and customers who can adopt technology such as distributed generation, pay a smaller share for fixed infrastructure and program costs. Lowering volumetric rates closer to their marginal cost can improve affordability of current energy use, as well as increase incentives to electrify.

Rate reform should not overly burden customers who are unable to take advantage of new technologies to conserve or manage load. SDG&E supports a fixed charge design that reflects affordability for all customers, such as an income-adjusted fixed charge. The inclusion of a fixed charge will in turn lower volumetric rates because fewer fixed costs would be recovered volumetrically. These designs increase affordability for all customers by lowering volumetric rates and creating a more progressive rate structure.

As technology continues to advance, more innovative approaches to rate design (including increased fixed cost recovery) and reevaluation of funding for some programs will be needed to balance the interests of all ratepayers.

B. Overall Rate Policy

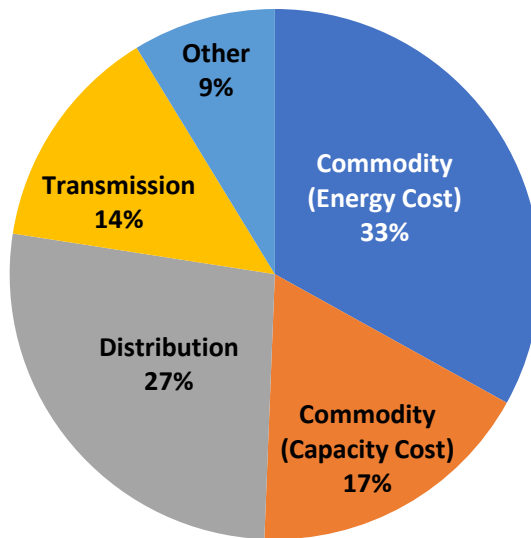
California’s electric utilities play an important role in reducing GHG emissions through increased procurement of renewables and energy rates that incentivize electric use during times of increased renewable production and lower grid strain. As we evolve from a world where all customers receive “full service” from the utility, to one where there is an abundance of customer choices, including self-generation and commodity services from Community Choice Aggregators (CCA), the need for accurate price signals that truly reflect the cost of services provided is critical.

Additionally, as more and more self-generating customers move towards net zero energy on an annual basis, the Commission will need to consider what cost recovery mechanisms are appropriate. High volumetric rates also create a barrier to beneficial electrification which is less affordable when fixed costs are recovered volumetrically.

Utility electric rates recover the costs of services related to distribution resources, transmission resources, the costs of public policy programs and mandates, and for bundled customers, the costs of commodity resources. On average, under SDG&E’s current effective electric rates for bundled customers, commodity services represent approximately 50% of total costs recovered, distribution represents 27%, transmission covers 14%, and the remaining 9% represents the costs of State and Commission mandated programs. As shown in Chart 1, most of SDG&E’s costs are fixed. Only commodity (energy cost), which represent a fraction of the services recovered in electric utility rates, corresponds directly to the kWh energy usage of customers.

Chart 1: Breakout of System Average Rate*

CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023



***Based on rates effective January 1, 2023.**

Fixed costs are incurred independent of customer usage (kWh) and are driven either by (1) the number of customers, or (2) the capacity needs of customers, on both the system and individual circuits, which result from the maximum load or demand of the customers. SDG&E must incur these transmission and distribution costs on a scale that supports at least the minimum needs of its entire customer base, regardless of a customer's energy consumption. However, residential electric rate cost recovery is based almost entirely on kWh usage and therefore misaligned with cost-causation. This is producing major distortions and inequities in rates.

For SDG&E, a large distortion created by its usage-based rate structure is the Net Energy Metering (NEM) cost shift. NEM customers currently bypass a significant share of fixed costs, and currently represent approximately 20% of SDG&E's residential customers. However, standalone solar, which represent the majority of NEM customers, are as reliant if not more on the electricity grid. NEM customers use the utility as infrastructure both to export their excess production during the day and pull energy from the grid at night when the sun is not shining. Because NEM policy allows for netting of nearly all volumetric rate components, adopters can reduce their bills to nearly nothing and essentially use the grid as a free storage resource.⁴ Additionally, these customers avoid paying for state policy mandates and

⁴ The original NEM tariff allows for netting of all rate components. The NEM Successor Tariff (NEM 2.0) requires customers to pay non-bypassable charges on all delivered energy. Non-bypassable charges make up approximately \$0.04861/kWh of the average residential rate, which is \$0.404/kWh as of January 1, 2023. A new tariff for DGR customers was adopted in D. 22-12-056, which modifies the export compensation structure for future residential

CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023

programs that other nonadopting customers end up footing as part of their (now higher) volumetric rates. This leads to equity concerns as nonadopters are typically customers that cannot afford distributed generation resource (DGR) systems or cannot install systems due to living in multifamily housing. The recent Commission decision D. 22-12-056 recognized the affordability challenges created by the existing Net Energy Metering structure highlighting that “[a] review of the current net energy metering tariff, referred to as NEM 2.0, found that the tariff negatively impacts non-participating ratepayers, disproportionately harms low-income ratepayers, and is not cost-effective.” The decision adopted a Net Billing Tariff that helps reduce the inequity created from new adopting customers but also recognized that inequity still remains. With growth in technologies and customer choice, similar inequities will likely emerge if energy rates are not restructured to reflect the fixed nature of utility costs.

Rethinking Rate Design Principles to Facilitate California’s Future Energy Landscape

In addition to being the venue where default residential fixed charges will be adopted, R. 22-07-005 will also adopt updated Commission Rate Design Principles (RDPs). SDG&E supports modernizing the RDPs but emphasizes the importance of some key themes in the existing principles, shown in Table 1 below, particularly increased emphasis on customer understanding and acceptance. Table 1 below presents the RDPs in the four categories consistent with D.15-07-001: cost of service, affordable electricity, conservation, and customer acceptance.

Table 1: Rate Design Principles

Cost of Service RDP	Affordable Electricity RDP	Conservation RDP	Customer Acceptance RDP
(2) Rates should be based on marginal cost; (3) Rates should be based on cost-causation principles; (7) Rates should generally avoid cross-subsidies, unless the cross-subsidies appropriately support explicit state policy goals; (8) Incentives should be explicit and transparent; (9) Rates should encourage economically efficient decision-making.	(1) Low-income and medical baseline customers should have access to enough electricity to ensure basic needs (such as health and comfort) are met at an affordable cost.	(4) Rates should encourage conservation and energy efficiency; (5) Rates should encourage reduction of both coincident and non-coincident peak demand.	(6) Rates should be stable and understandable and provide customer choice; (10) Transitions to new rate structures should emphasize customer education and outreach that enhances customer understanding and acceptance of new rates, and minimizes and appropriately considers the bill impacts associated with such transitions.

Given today’s energy landscape and increased competition for limited economic resources, it is time to reassess the value of each RDP individually and collectively and ask what else is needed to ensure California realizes its climate goals. Rates should continue to be based on cost-causation principles and encourage economically efficient decision-making, be affordable for all customers, emphasize customer understanding and stability, and incentives should be explicit and transparent. Rates should also continue

DGR customers. However, under current rate structures the cost shift generated by existing NEM 1.0 and 2.0 customers will continue to grow until all legacy periods end in 2043.

CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023

to encourage energy efficiency, conservation, and reduction of peak demands during the critical times of the day through time of use (TOU) pricing structures. Reforms to the rate design principles should maintain guidance for understandable rates that support state policy goals without constraining the utilities' ability to respond to changes in policy or technology as we move toward an increasingly renewable and interconnected grid.

For customers to electrify their homes and businesses, they must see a value proposition for conversion. Electrification requires customers to increase their electricity consumption from current levels. The current rate structure gives significant weight to Conservation RDP #4 which serves as a disincentive for increasing consumption regardless of whether that usage is displacing fossil fuel consumption. SDG&E submits that conservation and energy efficiency are still important during critical times of the day. However, in transitioning to the new clean electricity future, they should not be prioritized over other principles.

Collecting more fixed costs through a fixed charge will help reduce volumetric rates closer to their marginal cost, better reflect the actual cost to serve customers, and help encourage electrification. Adjusting the RDP priorities to recover more fixed costs in fixed charges would also ensure that customers who choose to adopt technology continue to pay for safety and reliability enhancements, grid investments required to accommodate advanced technology adoption, and state policy mandates without passing those costs on to nonadopters.

Time-of-Use Periods in the Future

Properly defined, TOU rate structures deliver accurate price signals for the commodity component of electric rates. However, these signals are driven by commodity price signals which are developed by a customer's commodity provider. In SDG&E's service territory, over half of customers are unbundled, meaning they receive their commodity service from a provider other than SDG&E. This number is expected to increase in coming years, and as a result, SDG&E's commodity-driven TOU price signals will apply to a smaller group of customers.

While the CCAs in SDG&E's service territory currently offer commodity rates that mirror the standard SDG&E TOU periods, they are not required to offer these rates and can define different TOU periods. If CCAs are able to operate independently of the CPUC regulatory process, the state must consider how consistency can be achieved between CCA TOU periods and state goals. If CCAs offer TOU periods that do not coincide with the highest cost and most GHG intensive hours, customers may not be incentivized to shift their consumption to lower-cost and cleaner hours.

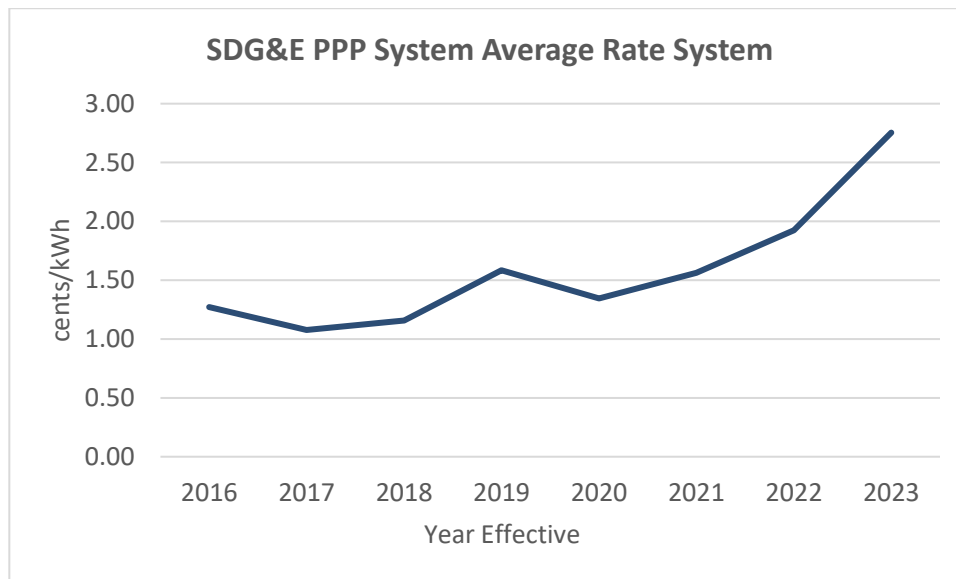
Public Purpose Programs Continue to Increase Electric Rates

Lastly, legislatively mandated Public Purpose Programs (PPP) are contributing to the upward pressure on electric rates. This rate component helps fund low-income programs such as California Alternate Rates for Energy (CARE), Family Electric Rate Assistance (FERA), Energy Efficiency programs, and other mandated programs designed to create public benefits. The current electric PPP revenue requirement funds 17 different programs and adds up to a total of \$489 million, an increase of 38% from

CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023

a total of \$353 million in 2022. Since 2016, the PPP rate component has increased 106% for residential customers and 116% system wide.⁵ This trend is continuing as programs recovered through PPP continue to expand. As noted in SDG&E’s comments in the report last year, four new programs were required to be included in PPP in 2022, contributing to the rate increase.⁶

Chart 2: Historical Public Purpose Programs Average Rate



With inflation continuing to rise and electric rates increasing beyond the rate of inflation, it is becoming more challenging for customers to absorb rising costs embedded in rates. Because PPP costs are collected from customers through volumetric rates, it penalizes customers that have higher usage, such as bigger households, households in less-moderate climate zones, households without solar or other distributed energy technology, and households that are increasing their usage as a result of adopting electrification technology. If the total PPP revenue requirement was no longer collected through electric rates, SDG&E’s average residential rate would decrease by 6% and system average rate would decrease by 7%. SDG&E currently estimates that this rate decrease would reduce the average residential bill by approximately \$122 annually.⁷ Funding PPP through the State’s General Fund is a concrete step California could take that would guarantee a decrease in volumetric energy rates.

⁵ Increase from January 1, 2016 to January 1, 2023.

⁶ Programs that have been added to the PPP funding in the past year are the Residential Uncollectible Balancing Account – Arrearage Management Payment subaccount, the Flex Alert Balancing Account, the Economic Development Rate Balancing Account, and the Wildfire and Natural Disaster Resiliency Rebuild Program. The current revenue requirements for these programs were adopted per SDG&E AL 3849-E, effective January 1, 2022.

⁷ Average SDG&E residential customers pays ~\$10.18/month in PPP charges at an average residential PPP rate of 2.5 cents/kWh and average usage of 400 kWh per month.

**CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023**

SDG&E Illustrative Class Average Rates				
Customer Class	Rates Effective (¢/kWh) 1/1/2023	Rates with PPP Removed	Rate Reduction	Rate Reduction
			(¢/kWh)	(%)
Residential	40.375	37.829	2.546	-6.31%
Small Commercial	40.224	37.242	2.982	-7.41%
Med & Lg C&I	37.553	34.66	2.893	-7.70%
Agriculture	28.614	25.926	2.688	-9.39%
Lighting	34.644	34.467	0.177	-0.51%
System Total	38.471	35.717	2.754	-7.16%

C. SDG&E’s Policy to Limit Costs and Control Rate Increases for Customers

SDG&E continues to believe that a fair and equitable rate design will ensure that all customers pay a reasonable share of the utility infrastructure costs needed to serve them, and that a shrinking pool of customers are not left responsible for grid costs that benefit all customers.

Within California, NEM policy has been wildly successful in incentivizing customers to adopt distributed generation. But these incentives have not sufficiently adapted to increased adoption of distributed generation and increased volumetric rates, resulting in significant costs being shifted to non-adopters and increased volumetric rates for all customers.

In December 2022, the Commission adopted D.22-12-056 which establishes a Net Billing structure to replace the current NEM structure for new customers interconnecting after April 14, 2023. D.22-12-056 recognized the impacts of the current program and adopted changes to help reduce some of the inequity created by the existing tariff. The Decision recognized that inequity remains and considers R. 22-07-005 a more appropriate venue to consider income graduated fixed charges applicable to all customers.

List the Policies the Utility is Advocating

SDG&E continues to recommend the following policies for limiting costs and rate increases while meeting the State’s energy and environment goals for reducing GHG:

1. **Accurate price signals:** Providing customers with accurate price signals means that utilities charge for the services they provide, and rates are designed to recover costs on the same basis by which they are incurred. This includes charging a cents/kWh rate more in line with the marginal cost of electricity that will help support conversion from traditional more carbon-intensive fuels to low-carbon electric alternatives.
2. **Transparent incentives:** Incentives or subsidies that have been deemed necessary to further public policy objectives are separately and transparently identified and funded outside of electric rates. Cost-shifting is exacerbated with incentives that are embedded in rates and not

CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023

transparently identified. Building upon the foundation of accurate price signals, subsidies that advance state policy goals should be transparently identified in utility bills, separate from the charges for services provided to or from the customer. SDG&E believes that legislatively mandated Public Purpose Programs should be funded through California’s General Fund going forward. This would lead to more affordable electric rates for all customers, as previously discussed in Section B.

3. **Customer options:** SDG&E believes that a critical aspect of SDG&E’s policy framework is to balance the needs of customers while still providing a cost-based rate structure. SDG&E recognizes the importance of continuing to offer customers new cost-based rate options that best meet their needs, and that providing the opportunity for customers to adopt rates that allow more customer choice and control should be balanced with complexity of rates.
4. **Reduced Volumetric Rates:** The residential fixed charge should be applied to all residential rates and reduce remaining volumetric rates to help support affordability and electrification. The default residential rate’s fixed charge must also be the minimum fixed charge on any optional residential rate in order to maximize volumetric rate reduction and prevent continued distortions from customers who have the means to take advantage of rate schedules with technology-specific eligibility requirements.

Recommendations for the CPUC and Legislature to Help Minimize Rate Increases in the Future

In 2023, SDG&E makes the following recommendations for minimizing rate increases into the future:

- Transition Public Purpose Program Funding from Electric Rates to California’s General Fund.
- Adopt a default residential fixed charge that appropriately reflects cost causation and allows for a meaningful reduction in average volumetric rates.
- Reconsideration of RDPs that Penalize Increased Consumption Resulting from Electrification and Decarbonization.
- Cost-Based Rates to Reduce Cross Subsidies.
- Increase Transparency of Subsidies.

SDG&E recommends that the Commission take this opportunity to continue to move forward with a cost-based rate structure and transparent incentives that allows for customers to accurately assess alternative energy services on a competitive basis. In addition, only with cost-based rate structure and transparent incentives can a clean energy future be supported without artificially inflating customer rates resulting from subsidies buried in rate design. SDG&E also recommends the Legislature transition the funding for public goods programs from PPP electric rates to the State’s General Fund in order to immediately help mitigate the upward pressure on rates. This change would guarantee a reduction in electric rates, leading to more affordable energy for all and enabling customers that adopt electrification technology to see smaller bill increases.

SDG&E recommends that the Commission allow for the implementation of a residential income graduated fixed charge as soon as reasonably practicable, given that most of SDG&E’s costs to provide

CPUC ENERGY DIVISION DATA REQUEST
2023 SB 695 REPORT ELECTRIC COST AND RATE DATA (PART 1I) –
IOU RECOMMENDATIONS
SDG&E RESPONSE
REQUEST DATE: March 3, 2023
RESPONSE DATE: March 17, 2023

service are fixed. This includes facilitating a state-wide income verification standard for income-based fixed charges that can be used by all IOUs.

Additionally, SDG&E recommends that the Commission use lessons learned from certain programs, including NEM, that include non-transparent rate subsidies and require the adopting customer to be compensated at the retail rate, when the same clean energy could be procured for significantly less. Looking to future affordability of electricity, the Commission and state have a responsibility to choose policies that are more cost-effective among those available to meet GHG targets. SDG&E will be required to continue to invest in infrastructure to provide clean, safe, and reliable service to all its customers. Additionally, further grid investment and upgrades will be needed to accommodate technology advances and adoption. SDG&E has a key role to play in the state's clean energy future and ensuring the right rate principles are in place to allow California to reach its future climate goals.

III. Conclusion

SDG&E appreciates the opportunity to provide these Comments and respectfully requests that the Commission and legislature take immediate steps to reform residential electric rates, particularly with regards to volumetric pricing and fixed cost recovery. Doing so would improve equity and affordability while enabling widespread electrification and customer choice.