Application of San Diego Gas & Electric Company (U-902-M) to Adopt 2024-2031 Energy Efficiency Rolling Portfolio Business Plan Pursuant to Decision 21-05-031.	Application 22-03-___

Exhibit No: _____
Date: March 4, 2022
Witness(es): Various

SAN DIEGO GAS & ELECTRIC COMPANY (U 902-M)

2024-2031 ENERGY EFFICIENCY ROLLING PORTFOLIO BUSINESS PLAN

PREPARED TESTIMONY

EXHIBIT 1

SAN DIEGO GAS & ELECTRIC COMPANY
EXHIBIT 1: STRATEGIC BUSINESS PLAN

CONTENTS

I. PA'S VISION FOR EE IN CA: 2024-2031

A. DESIRED OUTCOMES OF PORTFOLIO

SDG&E unambiguously supports California's ambitious goal of reducing economy-wide GHG emissions 40% below 1990 levels by 2030 and achieving carbon neutrality by 2045 or sooner. Evidence of SDG&E's commitment to these goals can be found in SDG&E's own Sustainability Strategy, which includes a commitment to reach net zero GHG emissions by 2045, in lock-step with the state's goal.[1] In alignment with the California Public Utilities Commission (Commission or CPUC) and the California Energy Commission's (CEC) goal to maximize the impact of Energy Efficiency programs to support the state's goals, as well as SDG&E's own sustainability and affordability goals, SDG&E's EE Business Plan strategy aims to:

- Reinforce commitment to innovation in customer offerings and technology advancements, including promoting fuel-substitution measures through effective collaboration with Third-Party Program Implementers, Investor-Owned Utility (IOU) and non-IOU portfolio administrators (PAs), Market Transformation administrator, and Codes & Standards and Emerging Technology programs.
- Mobilize end-to-end energy efficiency markets and participants, from original equipment manufacturers to program implementers, builders, contractors, local governments, Community Choice Aggregators (CCAs), Regional Energy Networks (RENs) and end-user customers, to enable greater adoption of energy efficient measures, promote behavioral changes and accelerate customers' path to Zero Net Energy or ZNE.
- Encourage and facilitate greater outreach and education to all providers and participants, with special emphasis on facilitating accessibility of programs and offerings to customers and providers in underserved communities, that is consistent with the goals and objectives of the Commission's Environmental and Social Justice Action Plan.

SDG&E's long-term EE portfolio will closely coordinate with the Commission's initiatives in response to Senate Bill (SB) 1477, which approved two pilots: (1) the Building Initiative for Low Emissions Development (BUILD Program); and (2) the Technology and Equipment for Clean Heating (TECH Initiative). D.20-03-027 provides specific direction on the implementation of these programs, as well as funding. The BUILD program focuses on providing incentives for near-zero building technologies in new residential buildings. A second new construction program was adopted by the Commission in D.21-11-002, the Wildfire and Natural Disaster Resiliency Rebuild (WNDRR) program. WNDRR is intended for residential and multi-family properties to rebuild lower-carbon, all-electric homes post-wildfire and other natural disasters.[2] SDG&E will support PG&E, the EE program administrator for Statewide (SW) residential

[1] SDG&E's Sustainability Strategy, *Building a Better Future*, available at https://www.sdge.com/sites/default/files/documents/SDG%26E%20Sustainability%20Report_0.pdf.

[2] D.21-11-002 at 35.

New Construction programs, to coordinate with the BUILD and WNDRR administrators, the CEC and SCE, respectively. Specifically, SDG&E will refer any qualified customers to these programs so that they can take advantage of all the incentives available to them as they rebuild their homes impacted by natural disasters.

The TECH program supports and provides incentives for technologies with the greatest potential for reducing GHG emissions, such as electric space and water heating equipment technologies. EE fuel substitution initiatives provide opportunities to coordinate with TECH. SDG&E is the SW program administrator for the HVAC and Plug Load & Appliance programs. As such, SDG&E will work with all its Third-Party Implementers, both statewide and local, to encourage coordination with the TECH program to provide additional incentives to offset incremental costs (e.g., electric panel upgrades) incurred to perform fuel substitution installations. D.21-11-002 provided direction for incentive layering of EE with TECH incentives.[3] Furthermore, SDG&E will seek Third Party local programs focused on fuel substitution. In the near term (2022 – 2023), SDG&E is incorporating electric/fuel-substitution measures in its local and statewide solicitations and its Third-Party programs to ensure long-life electric measures and quantities are maximized. While SDG&E cannot anticipate when electric measures will become economically viable for to replace existing gas equipment, our strategy is to enable early adoption in non-resource programs and avenues. As these measures become more cost-effective, SDG&E will move to offer more fuel substitution measures throughout its portfolio to encourage broader customer adoption. SDG&E also looks forward to greater collaboration with the CPUC, CEC and market participants to leverage new opportunities in building electrification thereby accelerating widespread adoption of such technologies.

In the mid-term (2024 – 2027), SDG&E intends to employ strategies to help reduce the high cost of certain long-life electric measures and associated customer investments required for fuel-substitution. Some of SDG&E's approaches include:

- Offer non-cost-effective electric technologies, in the Market Support & Equity segments, to help accelerate adoption and reduce their market price. Such offerings could help improve the cost-effectiveness of these measures, allowing Third-Party Implementers to offer and increase quantities of these measures in Resource programs.
- Collaborate with the Market Transformation SW administrator and implementers to support inclusion of currently non-cost-effective electric technologies in the measure mix to swiftly move them towards economic viability and enable broader adoption through local and statewide programs.
- Actively pursue available state and federal funds for projects and technologies that directly reduce GHG emissions permanently, such as electric HVAC and water heating, and enablers such as electric panel upgrades to support the significant incremental electric load associated with these improvements.

[3] D.21-11-002 at Attachment A: Adopted Incentive Layering Guiding Principles and Requirements.

Some unique aspects of SDG&E's service territory include its milder climate, majority residential customer base, small business customers comprising more than 77% of its commercial sector, and an agricultural sector largely comprised of micro-farms. While these aspects present unique challenges, they also present opportunities for innovation in program design and measures. SDG&E has taken these factors into consideration in developing this Business Plan while ensuring that strategies and interventions promote growth of energy efficiency markets to meet evolving policies and the CPUC's short- and long-term goals.

Partnering with Third-Party Implementers is central to SDG&E's portfolio planning and continued success in achieving CPUC goals. SDG&E has incorporated input from its Third-Party Implementer community within its Business Plan, especially in its forecasts of measures and cost-effectiveness of programs and offerings based on the 2021 Potential and Goals study. SDG&E will continue to rely on Third-Party Implementers to cultivate a sophisticated, agile approach towards the continued development of energy efficiency markets, measures and metrics, policy and advocacy, reporting and compliance, quality controls, codes and standards, and customer privacy and cybersecurity. These are imperative to continued growth of energy efficiency in its service territory and the state as well as to ensure safe, prudent, and cost-effective utilization of ratepayer funds.

In September 2019, the cities of San Diego, Chula Vista, Encinitas, La Mesa, and Imperial Beach adopted ordinances to form San Diego Community Power (SDCP), a California joint powers agency (JPA). SDCP is the largest CCA in SDG&E's service territory and the second largest CCA in the state. SDCP started serving customers in March of 2021. In December 2021, SDCP filed an amendment to its implementation plan, adding the County of San Diego and the city of National City to its JPA; these customers will transition in early 2023. Once this transition is complete, SDCP will serve approximately half of SDG&E's total customer load. In addition to providing the electric commodity to all customers within its geographic area, SDCP is developing a Community Power Plan, and has indicated that it intends to include customer programs within its plan in the near future. SDG&E also shares service with two other CCAs in the region. The Clean Energy Alliance currently serves customers in the cities of Solana Beach, Carlsbad, and Del Mar, with plans to expand to the cities of San Marcos and Escondido in 2023. The Orange County Power Authority will launch service to customers in 2022; SDG&E serves a small number of customers in the unincorporated area of Orange County that will transition in early 2023. SDG&E welcomes interest in program administration from all CCAs in the region and is committed to collaborating with regional CCAs to share best practices and help provide a seamless customer experience.

As Program/Portfolio Administrator, SDG&E will continuously monitor and optimize its portfolio and Third-Party Implementers' performance to ensure compliance with CPUC policies and guidance. Robust Third-Party contracts, pay-for-performance compensation design, solid quality assurance processes and procedures, compliant evaluation and measurement methodologies and accuracy in reporting are some of the activities SDG&E will rely on to ensure strong portfolio administration to meet short term contractual and CPUC goals, and longer-term SDG&E, CPUC and state decarbonization and electrification goals.

The various aspects of the discussion above are explored and addressed in more depth within the various chapters and sections of this Business Plan.

As we look to the future, California will continue to experience the impacts of climate change. D.21-12-011 noted, "Governor Newsom issued a Proclamation of a State of Emergency on July 30, 2021, in response to significant and accelerating impacts of climate change in California. The Governor's Proclamation requested that the Commission identify and prioritize deployment of clean energy and storage projects to mitigate the risk of capacity shortage and increase the availability of carbon-free energy at all times of day."[4] In response to this proclamation, the Commission directed the IOUs to develop and propose EE reliability programs for implementation in 2022-2023. "Energy efficiency and other clean demand-side investments identified as part of the Governor's Proclamation are currently most valuable during peak and net peak demand hours (4:00 p.m. – 9:00 p.m. and 7:00 p.m. - 9:00 p.m., respectively)."[5] SDG&E notes that the avoided costs benefits recognize the importance of these hours by valuing them accordingly, that is, benefits during these hours are higher compared to other time periods. Furthermore, the Commission encouraged the PAs to propose and incorporate reliability into this application, particularly for proposals not approved in D.21-12-011.[6] SDG&E will continue addressing reliability, in particular through Integrated Demand Side Management (IDSM) activities, in its current Third-Party programs and future program solicitations.

B. SDG&E SERVICE TERRITORY

SDG&E provides electric and natural gas services to San Diego County and electric service to south Orange County. SDG&E's service territory, located at the southernmost tip of California on the border with Mexico, covers approximately 4,100 square miles. With the majority of its 3.6 million customers living in climate zones 7, 10 and 14, energy consumption can vary greatly between microclimates.

[4] D.21-12-011, Findings of Fact (FOF) 1 and 2 at 52.

[5] D.21-12-011. FOF 3 at 52.

[6] D.21-12-011 at 44.

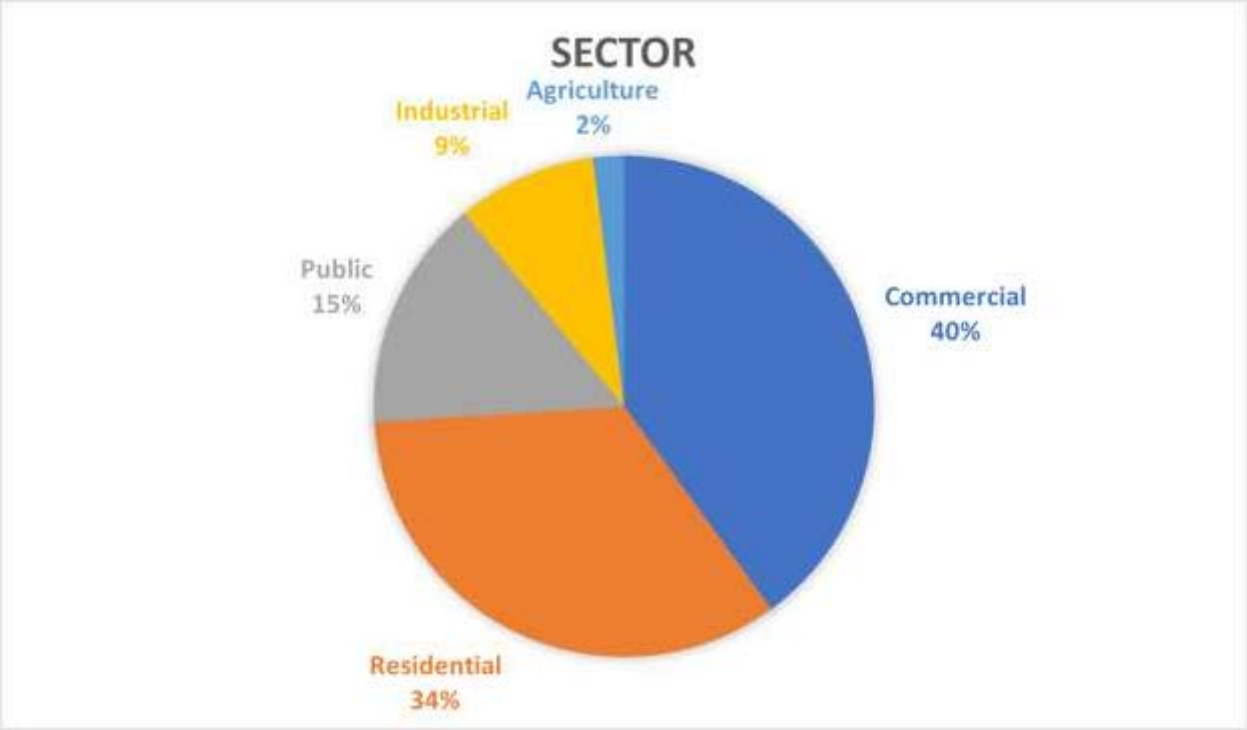
Figure 1: SDG&E Service Territory

- 4,100 square miles in San Diego and southern Orange counties
- 3.6 million residents
- 1.4 million electric and 873,000 natural gas meters
- Comprised primarily of three climate zones: 7, 10, & 14
- Approximately 80% of gas and electric consumption comes from residential and commercial sectors

1. Electric Customer Consumption

The Commercial sector accounts for approximately 40 percent of electric consumption, followed closely by the Residential sector at approximately 34 percent. The remaining 26 percent is from the Public, Industrial and Agricultural sectors. Figure 2 below shows the 2018-2020 average electric consumption by market sector.

Figure 2: 2018-2020 Average Percentage Electric Consumption by Sector



In the Residential sector, the increasing number of electric vehicles and self-generation is expected to reduce peak demand by 380 MW by 2024. With respect to customer type, more than half of households are classified as renters, and the complexities of split incentives and multiple decision makers continue to be barriers to program participation.

Although the Commercial sector is SDG&E's largest group of customers, it primarily consists of very small customers with <20 kW demand and almost two-thirds have fewer than 5 employees. With the continued impacts of the COVID-19 economic downturn, related labor issues and other competing needs, EE upgrades may not be a priority for small business owners.

The Industrial sector remains relatively small and is not expected to grow substantially. Complex systems, diverse end-uses, proprietary processes, and environmental regulations may continue to limit EE adoption.

As described in the Agricultural sector chapter, the San Diego region has more than 5,000 farms, mostly micro-farms with fewer than 10 acres. Competing factors such as labor costs, expensive water and land tend to deprioritize EE adoption for smaller farm owners.

2. Electric Market Potential

D.21-09-037 adopted the updated EE goals for 2022-2031. The basis for these updated goals is the 2021 Energy Efficiency & Potential and Goals Study, which directs stakeholders regarding the anticipated potential for savings in the identified EE market

(market potential) by IOU and sector for this period.[7] Tables 1 and 2 provide SDG&E's 2024-2031 EE electric energy and demand reduction market potential.[8]

Table 1: 2024-2031 EE Electric Energy Savings Market Potential

Energy Savings (GWH) Core Portfolio (no Codes & Standards)								
Sector	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Agricultural	1.037	1.126	1.231	1.363	1.535	1.774	2.141	2.236
Commercial	30.514	33.947	35.469	43.172	45.684	47.355	48.621	48.530
Industrial	4.017	5.234	5.209	5.096	5.004	4.925	4.845	4.682
Residential	62.716	64.627	66.516	68.537	70.746	73.143	76.375	79.995
Grand Total	**98.284**	**104.933**	**108.425**	**118.168**	**122.969**	**127.197**	**131.982**	**135.444**

Table 2: Energy Savings Core Portfolio with Codes & Standards

Energy Savings (GWH) Core Portfolio (with Codes & Standards)								
Sector	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Agricultural	1.037	1.126	1.231	1.363	1.535	1.774	2.141	2.236
Commercial	134.327	134.463	131.733	130.274	126.724	107.847	100.560	99.492
Industrial	9.919	10.987	10.764	10.452	10.162	9.885	9.606	9.442
Residential	163.291	157.631	151.206	143.479	141.988	134.950	133.998	135.287
Grand Total	**308.575**	**304.207**	**294.934**	**285.568**	**280.409**	**254.456**	**246.306**	**246.457**

[7] Market potential: The final output of the potential study is a market potential analysis, which calculates the EE savings that could be expected in response to specific levels of incentives and assumptions about existing CPUC policies, market influences, and barriers. Some studies also refer to this as achievable potential. Market potential is used to inform the utilities' EE goals, as determined by the CPUC. Market potential has historically been used by the CPUC to inform the goal setting process. Market potential is primarily reported as a net savings value (CPUC shifted to setting goals based on net savings in 2017), though gross values are also produced by the model.

[8] Data was derived from the 2021 PG Measure Results Database available at https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/energy-efficiency-potential-and-goals-studies/2021-potential-and-goals-study.

Table 3: 2024-2031 EE Demand Reduction Market Potential

Demand Reduction Savings (MW) Core Portfolio (no Codes & Standards)								
Sector	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Agricultural	0.154	0.168	0.183	0.202	0.225	0.254	0.300	0.316
Commercial	2.668	2.965	3.114	3.638	3.816	3.961	4.087	4.182
Industrial	0.827	1.365	1.360	1.314	1.246	1.159	1.017	0.937
Residential	17.057	17.570	18.071	18.588	19.121	19.663	20.345	21.065
Grand Total	**20.706**	**22.068**	**22.729**	**23.742**	**24.407**	**25.037**	**25.749**	**26.500**

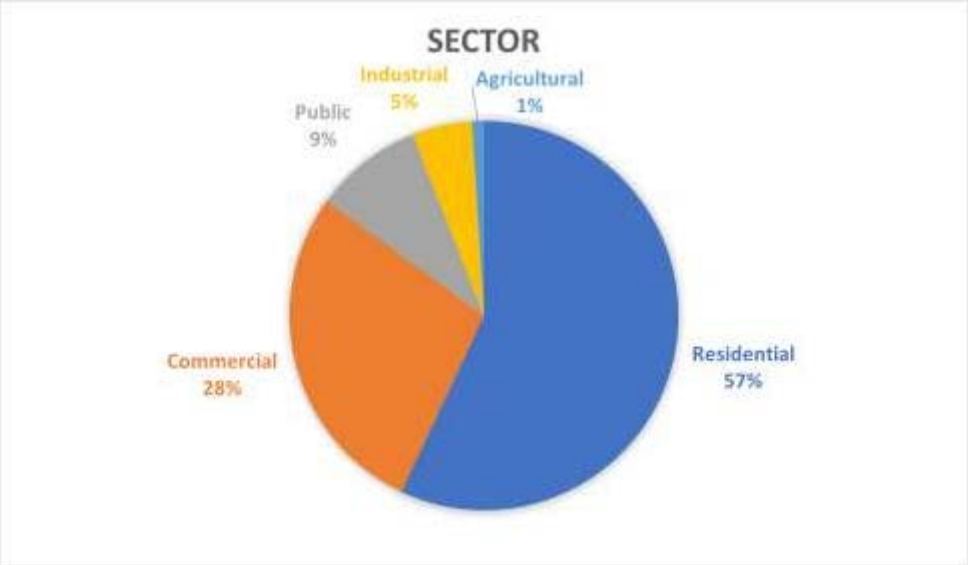
Table 4: Demand Reduction Savings

Demand Reduction Savings (MW) Core Portfolio (with Codes & Standards)								
Sector	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Agricultural	20.706	22.068	22.729	23.742	24.407	25.037	25.749	26.500
Commercial	3.639	3.911	4.027	4.517	4.662	4.773	4.866	4.960
Industrial	1.798	2.311	2.272	2.193	2.092	1.971	1.796	1.715
Residential	43.623	42.694	41.572	39.694	39.362	37.722	37.430	36.963
Grand Total	**63.491**	**62.897**	**61.144**	**58.266**	**57.305**	**53.105**	**51.820**	**51.241**

3. Natural Gas Customer Consumption

The Residential sector accounts for approximately 57 percent of natural gas consumption. The primary residential natural gas end uses are space heating and water heating. The Commercial and Public sectors have a combined attribution of 37 percent of gas consumption. The remaining 6 percent is from the Industrial and Agricultural sectors. Figure 3 below shows the 2018-2020 average electric consumption by market sector.

Figure 3: 2018-2020 Average Percentage Gas Consumption by Sector



4. Natural Gas Market Potential

Table 5: 2024-2031 EE Natural Gas Energy Savings Market Potential

Energy Savings (MThm) Core Portfolio (no Codes & Standards)								
Sector	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Agricultural	0.0216	0.0209	0.0203	0.0197	0.0192	0.0186	0.0181	0.0176
Commercial	0.4548	0.5019	0.5564	0.6485	0.6707	0.7190	0.7606	0.8014
Industrial	0.0641	0.0607	0.0579	0.0669	0.0651	0.0701	0.0768	0.0759
Residential	2.4350	2.5408	2.6514	2.7582	2.8630	2.9626	3.0687	3.1798
Grand Total	**2.9754**	**3.1242**	**3.2860**	**3.4932**	**3.6180**	**3.7703**	**3.9242**	**4.0747**

Table 6: Energy Savings Core Portfolio with Codes & Standards

Energy Savings (MThm) Core Portfolio (with Codes & Standards)								
Sector	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Agricultural	0.0216	0.0209	0.0203	0.0197	0.0192	0.0186	0.0181	0.0176
Commercial	0.9206	0.9535	0.9635	1.0611	1.0717	1.1445	1.1864	1.2198
Industrial	0.0637	0.0603	0.0576	0.0666	0.0648	0.0698	0.0765	0.0756
Residential	4.0509	4.1339	3.4876	3.5970	3.6240	3.6448	3.7291	3.8199
Grand Total	5.0569	5.1686	4.5289	4.7444	4.7798	4.8777	5.0100	5.1328

The San Diego region will continue to experience the impacts of continued population growth,[9] as well as the effects of higher-than-average temperatures with increased frequency, intensity, and duration of heat waves.[10] These impacts are opportunities for EE programs, specifically those serving customers in inland climate zones and especially those addressing HVAC and behavioral change. In addition, the continuation of virtual and/or hybrid work environments resulting from the COVID-19 pandemic continues to reshape residential and non-residential building energy usage. As a result, energy-efficiency offerings will be designed to address those unique needs and motivate customer participation. For example, climate zone 7, the southwestern-most zone in the state, includes coastal cities and tends to have a milder climate, resulting in less urgent adoption of energy-efficiency measures, as they are not as cost effective as in other areas in California. Due to demographic and climactic characteristics of the region, SDG&E customers' progress towards ZNE will continue at a pace different from customers in the rest of the state.

C. SDG&E EE STRATEGY

1. Strategy For Application/Use of Various and New Methods for Savings Forecasting and Quantification Methods (e.g., Normalized Metered Energy Consumption Including Requirements in Public Utilities Code Section 25310(C)(5))

SDG&E is focused on compliant approaches to forecasting and quantification of savings. The methods used in our portfolio consist of the following approved methodologies:

- Deemed Measures – currently approved in the eTRM (California Electronic Technical Reference Manual) database and follow the Statewide Deemed Workpaper Rulebook
- Custom Calculated – using methodologies that follow the current version of Statewide Custom Guidance Document and IPMVP methods and/or are reviewed by the Custom Project Review Team of the CPUC
- Site-Level NMEC – using calculation methods that align with the current version of the NMEC Rulebook and reviewed by the Custom Project Review Team of the CPUC
- Population-level NMEC – using calculation methods that align with the current version of the NMEC Rulebook and reviewed and validated by Measurement and Verification PA team.

SDG&E supports the introduction of new methodologies and calculation methods that may be recommended by Third-Party Implementers. SDG&E will review and validate these new methodologies and calculation methods. SDG&E will work with the Energy Division Custom Project Review Team, eTRM, and PA Measurement and Verification

[9] SANDAG 2050 Regional Growth Forecast, Technical Appendix 2, Table 2.1, available at https://www.sandag.org/index.asp?subclassid=84&fuseaction=home.subclasshome.

[10] California's Fourth Climate Change Assessment, available at https://www.climateassessment.ca.gov/.

(M&V) teams to receive approval of the proposed methods so that they can be used by the Third-Party Implementers for their programs.

2. **Strategies for Market Intervention and Energy Efficiency Adoption: e.g., Targeted Points of Intervention; Delivery Channels/Platforms/Methods**

The following chapters include holistic strategies for market intervention across each sector. These strategies are supported by planned and potential tactics that include targeted delivery channels to facilitate the customer journey to ZNE, as well as whole building approaches.

Residential strategies may include the development of an online platform to engage and educate customers, provide direct links to home energy checkups, finance opportunities and track their journey to ZNE. For multifamily tenants, direct installation will be an entry point to expand offerings, and seminars will be promoted to assist and engage multifamily building owners. Coordination with the Energy Savings Assistance (ESA) program will serve as an entry point for customers who earn over the income guidelines to qualify for the ESA program as well as for tenants in master metered buildings.

Onsite ads directed at potential tenants that include a building benchmark score could be a tactic used to educate and promote more environmentally friendly and efficient buildings. Additionally, communication to new residents may be launched to display standard consumption statistics for seasonal changes.

Real estate professionals offer another delivery channel of promoting the value and benefits of participating in certain energy-efficiency programs and services, such as financing options.

For all sectors, streamlining the initial enrollment process will expand the reach of contractors who are knowledgeable and educated via the Workforce Education & Training offerings. This will enable customers and contractors of all sizes throughout the service territory, including hard-to-reach populations, to take advantage of energy efficiency opportunities.

Additionally, leveraging benchmarking scores to enhance the marketability of buildings may serve as a customer's entry point into energy-efficiency and enable them to embark upon a journey to ZNE.

3. **New Strategies for Spurring Innovation: e.g., Cultivating New, Diverse, Businesses to Enter EE Design/Implementation, Cultivating Relationships with Traditional Actors in Other Markets to Enter EE Design/ Implementation, Supporting the Adoption of New and Evolving GHG Reducing Technologies**

SDG&E prioritizes innovation in all solicitation efforts. SDG&E works with Third-Party Implementers to discuss and discover innovative ways to serve the territory markets and diverse customer base, including enhancements to segmentation strategies based on experience gained from current program performance. SDG&E will leverage relationships with industry organizations and focus groups to identify new areas and/or innovative ideas for increasing Energy Efficiency and GHG reductions.

As part of SDG&E's approach to solicitations, emphasis is placed on providing opportunities for Third-Party implementers who are either Diverse Business Enterprise (DBE) certified or willing to use qualified DBE subcontractors. Several strategic approaches are implemented, such as holding symposiums to bring primes and subcontractors together, targeted outreach to the small and diverse business community and sharing best practices where appropriate.

SDG&E's Emerging Technologies and Codes and Standards teams work extensively with Program Implementation teams to ensure knowledge sharing of emerging technologies and measures. SDG&E actively works with Community Based Organizations to gain further knowledge and insight into market sectors and to obtain knowledge on potential areas of opportunity for emerging GHG-reduction technologies. SDG&E also works across internal company groups to ensure alignment with other company initiatives and efforts relating to Energy Efficiency, resiliency and GHG reductions.

4. Strategy for Incorporating Low Global Warming Potential (Low-GWP) Refrigerants in the Portfolio

The following section outlines SDG&E's strategy for incorporating low global warming potential (low-GWP) refrigerants in the portfolio and includes the following elements:

- Explanation of work completed to-date to prepare for inclusion of low-GWP measures in the portfolio.
- Explanation of future work necessary for inclusion of low-GWP measures in the portfolio, supported by specific milestones and timelines.
- A qualitative explanation of how the PA will manage low-GWP measures and projects, highlighting the provision of engineering support/review, M&V, and documentation requirements.

a. Work Completed to Date

As the statewide lead for the HVAC, HVAC Installation and Maintenance, and Plug Load & Appliance Programs, SDG&E has continued to monitor developments in low-GWP refrigerants, primarily focusing on the market potential and technical feasibility of developing and offering low-GWP program measures. In addition to its internal research in 2021, SDG&E contracted with an external engineering firm to complete an independent survey of the state of low-GWP technology marketplace. More details of this research are included in Exhibit 02.

b. Explanation of Future Work Necessary

During the short term (2022-2023) and in preparation for this Business Plan, SDG&E will collaborate with its Third-Party Implementers, the California Technical Forum (CalTF), and other statewide stakeholders to explore the viability of GWP reductions through recycling or refrigerant recovery methods and potentially identify viable measures that can achieve refrigerant avoided costs. Furthermore, SDG&E will continue to monitor developments in the area of low-GWP refrigerants and explore potential program measures, both custom and deemed. Additional details describing potential measures are included in Exhibit 02.

SDG&E has allocated funding and resources in the 2022-2023 budget advice letter filed on January 7, 2022[11] and this application for further low-GWP research and measure package development. SDG&E will continue this research during the 2022 and 2023 program years to support this Business Plan and, as appropriate, submit measure packages to CPUC staff via CalTF's measure screening process.

Management of Low-GWP Measures and Projects:

Both custom and deemed low-GWP measures will be evaluated and implemented using established statewide guidance and will include collaboration with CalTF, Third-Party Implementers and other statewide stakeholders as needed. Engineering support and review, M&V, and documentation requirements will follow these statewide guidelines and follow SDG&E's established project and program quality assurance protocols.

As low-GWP measures become available to the market, SDG&E will work with its current and future Third-Party implementers to ensure those measures are included in program offerings where appropriate. SDG&E will consider establishing program goals and compensation mechanisms that will advance the adoption of low-GWP equipment.

5. Portfolio Management Strategies

a. Segmentation Strategy Summary (including Resource Acquisition, Market Support, Equity)

SDG&E approaches the segmentation of its portfolio systematically based on the value proposition for each segment[12] as well as the unique needs and opportunities within each portfolio sector inside SDG&E's territory and the regional marketplace.

i. Resource Acquisition

Programs with a primary purpose of, and a short-term ability to, deliver cost effective avoided cost benefits to the electricity system. Short-term is defined as during the approved budget period for the portfolio. This segment should make up the bulk of savings to achieve TSB goals.

Prior to D.21-05-031 allowing segmentation and moving the cost effectiveness threshold from the portfolio level to the segment level, SDG&E was primarily focused on solicitations for cost effective resource programs. SDG&E is carrying this same strategy over to its Resource Acquisition segment and continuing to target Resource Acquisition programs with a Total Resource Cost (TRC) of 1.25 to ensure this segment is able to forecast and report at a TRC of 1.0 as required by D.21-05-031.[13] SDG&E has planned solicitations for Resource Acquisition programs that cover the various customer sectors within its territory.

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[11] SDG&E Advice Letter 3887-E-A/3035-G-A, Supplemental - San Diego Gas & Electric Company's 2022-2023 Biennial Energy Efficiency Program and Portfolio Budget Request (January 7, 2022), available at https://tariff.sdge.com/tm2/pdf/3887-E-A.pdf.

[12] D.21-05-031 at 26.

[13] D.21-05-031, Ordering Paragraph (OP) 3 at 81.

ii. Market Support

Programs with a primary objective of supporting the long-term success of the energy efficiency market by educating customers, training contractors, building partnerships, or moving beneficial technologies towards greater cost-effectiveness.

The 2024-2027 budget application is the first opportunity for SDG&E to propose new solicitations for both the Market Support and Equity segments. SDG&E is planning for two new solicitations for this segment as a part of this application. Due to the 30 percent cap on funding for both the Market Support and Equity segments, and the various statewide programs that are also classified within these segments, SDG&E has limited funding to be able to expand offerings for local programs.

iii. Equity

Programs with a primary purpose of serving hard-to-reach or underserved customers and disadvantaged communities in advancement of the CPUC's Environmental and Social Justice Action Plan; the objectives of such programs may include increasing customer safety, comfort, resiliency, and/or reducing customers' energy bills.[14]

As stated above, this is SDG&E's first opportunity to plan for new programs that align with the definition of this segment. SDG&E has proposed three new programs for the Equity segment as part of this application filing. Throughout the application period, SDG&E will continue to look for ways to serve the customers in this segment.

SDG&E has taken care to designate local and SDG&E-led statewide programs in the proper categories to ensure alignment with the decision language and accurate accountability for these programs. However, SDG&E's ability to provide a comprehensive set of offerings for all market sectors within the Market Support and Equity buckets is restricted by the statewide programs being designated in this area, e.g., SW new construction programs. For statewide programs within these sectors, SDG&E followed the Statewide Lead PA in their designation.

b. Sector Strategy (Agricultural, Commercial, Workforce Education & Training, Emerging Technologies, Industrial, Public, Residential)

SDG&E is planning to service all customer sectors as previously serviced through programs and offerings. SDG&E's Commercial and Residential customer sectors are the two largest sectors within its territory, and therefore are the largest sector budgets within the portfolio. SDG&E has planned Resource Acquisition programs that cover all customer sectors (Commercial, Residential, Industrial, Agricultural and Public) and has added Market Support and Equity solicitations that cover both the Commercial and Residential sectors. Given budget allowance, SDG&E may propose additional Market Support and Equity programs for sectors not serviced in these initial solicitations in future filings.

[14] D.21-05-031 at 14.

c. Very high-level discussion of strategies driving distribution of budget among sectors and segments

SDG&E has planned its budget around several factors to ensure a balanced portfolio in areas of goal achievement and compliance. SDG&E used the 2021 Potential and Goals Study as a starting point for forecasting its Resource Acquisition programs and solicitations. In addition, SDG&E worked to budget the Market Support and Equity programs under 30 percent of the total Energy Efficiency Portfolio Budget to ensure compliance with CPUC direction.[15] Further, SDG&E has planned its solicitation strategy to meet both statewide and overall outsourcing requirements.

d. Outsourcing (required for IOUs only)

i. Strategy for continuing to maintain outsourcing target

SDG&E plans to outsource most of the portfolio with respect to programs and offerings. As outlined in the Solicitation Strategy section of Exhibit 2, Portfolio Management, SDG&E has outlined a schedule to maintain outsourcing requirements well above the 60% minimum required for Third-Party implementation. SDG&E builds the solicitation schedule to account for when contracts end and when new solicitations should begin to ensure little to no gap in offerings for customers.

ii. High-level discussion of solicitation strategies

The scope and schedule for 2024-2027 solicitations is informed by the following:

- Replacement of current existing Third-Party contracts
- Extensions for existing Third-Party contracts
- The new market segmentation: Resource Acquisition, Market Support and Equity
- Portfolio diversification through adjustments of market sectors

These were not considerations when the Statewide Third-Party model was adopted, but through lessons learned and based on new CPUC guidance they are foundational to SDG&E's approach.

The major changes to prior strategies for planning and executing solicitations, SDG&E has proposed a One-Stage, Two-Step solicitation process that, if adopted, will allow for a more efficient and effective process, and enable more timely program offerings (see Exhibit 2 Chapter 5 of this application). Over the long term, this will allow for significant time savings, more nimble approach to re-soliciting closed programs, and better opportunities for Implementers to make course corrections if needed. In addition, SDG&E incorporated many improvements based on its own observations and recommendations from internal and external stakeholders, such as Independent Evaluators. SDG&E plans to continuously improve the solicitation process, regardless of whether it will remain Two-Stage or change to One-Stage, Two-Step. See Exhibit 2, Chapter 5 for a more detailed discussion of these topics.

[15] D.21-05-031, OP 4 at 81.

e. Portfolio Coordination (other PAs, statewide programs, other DSM programs)

SDG&E works closely with other PAs and the statewide programs to ensure coordination and alignment. Exhibit 2 provides more details on this coordination efforts which includes IDSM with demand response programs, Water Energy Nexus, and Decarbonization programs.

f. Evaluation, Measurement and Verification

As Energy Efficiency programs have continually expanded and evolved over the years, so has Evaluation, Measurement, and Verification (EM&V). EM&V roles and responsibilities have increased, but still maintain the goals and objectives to evaluate, measure, and verify the performance and savings of SDG&E programs. SDG&E EM&V activities include but are not limited to:

- Measure and verify savings claims at program commencement (ex-ante) and at evaluation (ex-post)
- Optimize and develop new strategies, metrics, and calculation methods
- Assess the potential of Energy Efficiency savings opportunities in the marketplace
- Provide subject matter expertise for program planning and policy updates
- Provide recommendations for system and tool enhancements to incorporate compliance changes

A summary of planned EM&V studies and activities, along with budget allocation and justifications are included in Chapter 6.

g. Alignment with Legislative and CPUC Requirements and Relevant Action Plans

i. Demonstrated alignment of business plan strategies and outcomes with Legislative and CPUC requirements

California has implemented some of the most progressive greenhouse gas (GHG) reduction targets in North America. To achieve these targets, SDG&E's diverse four-year program portfolio is designed to support both legislative and regulatory frameworks established by the CPUC and California to ensure a clear path for ratepayers to achieve aggressive Energy Efficiency and peak demand reduction targets. SDG&E's EE strategy includes both short and long-term goals to address immediate and future needs of California and its ratepayers, which encompasses existing and new legislation and regulatory mandates. Ultimately, the diverse range of offerings presented in this Application will help meet the unique needs of SDG&E's customer base.

SDG&E's EE portfolio continues to support existing legislative drivers such as SB 350, AB 793, SB 1414, AB 802 and most importantly, SB 32, which mandates a goal of doubling energy efficiency savings by 2030. As an EE Portfolio Administrator, SDG&E continues to work towards achievement of California's unprecedented energy goals through alignment with the CPUC's EE specific directives, while providing its service territory with an exceptional and distinct set of program offerings. In addition to the GHG

and energy reduction focused legislation above, in 2021 AB 841 established the School Energy Efficiency Stimulus Program, to allow SDG&E's local schools impacted by COVID-19 to safely reopen with revamped Ventilation and Energy Efficiency Verification and Repair and School Noncompliant Plumbing Fixture and Appliance programs. This new state level priority is also supported by funding from SDG&E's existing EE portfolio and highlights the EE's unique position as a resource for executing state policies, even during times of significant change. SDG&E portfolio is also designed to support SB 1477 and the July 30, 2021, Governor's Proclamation of a State of Emergency in response to significant and accelerating impacts of climate change in California

SDG&E has aligned its overall portfolio with its eight-year Business Plan to include a broad energy efficiency strategy, sector-level strategies, and solid program metrics consistent with the most recent CPUC decisions and guidance. Notably, SDG&E maintains a continued focus on a predominantly Third-Party outsourced portfolio as established by previous CPUC direction.[16]

In D.21-05-031, the CPUC approved a new approach to segmenting energy efficiency program portfolios. The segments are Resource Acquisition, Market Support, or Equity. The Resource Acquisition segment is focused on achieving cost effective savings, a TRC cost effectiveness threshold of 1.0 and meeting the Total System Benefits (TSB) goals. On the other hand, the Market Support and Equity segments are intended to meet the Commission's other non-resource related policies that have negatively impacted cost effectiveness in the previous program cycles. This allows SDG&E to provide Market Support programs and services such as Workforce Education and Training and Emerging Technologies that do not have immediate energy savings attribution. The Equity programs are designed to address Hard-to-Reach, Disadvantaged Communities, or underserved communities that may be more expensive to serve. The addition of the Market Support and Equity segments allows SDG&E to continue funding activities, up to 30 percent of its budget, without impacting the cost effectiveness requirements. The new segments, together with their requirements, allow SDG&E to meet Commission requirements and policies for a broad approach to EE program implementation, inclusive of all California ratepayers, including Residential and Non-Residential, Statewide, Governmental, private sector, and marginalized communities. SDG&E has designed a comprehensive and collaborative portfolio.

The 2021 Energy Efficiency Potential and Goals Study includes a focus on current and future policy issues including market impacts of COVID-19, and ultimately informed the goals adopted by D.21-09-037. SDG&E recognizes that the study includes the integration of legislative drivers and addresses overall changes in policy landscape critical to the future of Energy Efficiency while offering a range of programs and services to support these efforts. Although the ongoing economic downturn caused by the COVID-19 pandemic introduces some uncertainty to the EE market, SDG&E's proposed portfolio is designed to leverage Third-Party implementation partners to achieve the TSB goals established in the most recent & future Potential and Goals Decisions.

[16] D.16-08-019 and D.18-01-004.

ii. Discussion of how the portfolio design and budget aligns with relevant action plans beyond the energy efficiency proceeding related to providing clean, safe, reliable, affordable energy to all customers.

SDG&E's portfolio aligns with California legislation and relevant action plans. These action plans include, for example, the Environmental and Social Justice Action Plan, greenhouse gas reduction, reliability, and integrated resources planning. In addition to complying with all CPUC requirements. Energy Efficiency programs provide clean, safe, reliable, and affordable energy by reducing the aggregate amount of energy required to be generated, thus reducing the total amount and relative percentage of energy that comes from non-renewable sources. SDG&E's proposed programs further increase the impact on grid reliability and GHG reductions by including measures that help shift and/or control load such as smart thermostats for Residential customers and more advanced control devices and systems for Non-Residential customers. SDG&E recognizes building decarbonization and fuel substitution as areas of increasing importance in this portfolio cycle. SDG&E describes coordination of its EE programs with the Commission's Decarbonization programs in its Desired Portfolio outcomes above. In addition, SDG&E proposes additional marketing education and outreach on fuel substitution, as well as a targeted fuel substitution program within the Market Support segment.

To support the Environmental and Social Justice Action Plan, SDG&E intends to use the new Equity Segment to help provide additional education and assistance in program participation to customers who are Hard to Reach (HTR) or located in Disadvantaged Communities (DAC).

Regionally, SDG&E's EE portfolio will continue to be a resource for county and city level climate action plans that call for reducing GHG emissions through increased efficiency. Local governments such as the County of San Diego and the City of San Diego are invested in the reduction of GHG emissions, and their climate action plans call for increasing energy efficiency or decreasing energy use intensity, among many other solutions.[1718] EE remains a cornerstone of state, regional, and customer level energy goals alike, and SDG&E's proposed portfolio will advance goals at each of these levels.

[17] San Diego County, *Climate Action Plan*, available at https://www.sandiegocounty.gov/content/sdc/sustainability/cap.html.

[18] City of San Diego, *Energy and Water Efficiency*, available at https://www.sandiego.gov/sustainability/energy-and-water-efficiency.

II. ANNUAL PORTFOLIO BUDGETS

Annual projected portfolio budgets adding up to the 8-year authorized budget cap including Savings, Cost Effectiveness & TSB forecasts

Table 7: Forecasted Portfolio Budget 2024-2027

Sector	2024	2025	2026	2027	4-Year Total
Commercial	$ 22,654,760	$ 24,389,795	$ 25,322,101	$ 26,576,147	$ 98,942,803
Residential	$ 20,695,461	$ 22,255,665	$ 21,993,217	$ 22,833,629	$ 87,777,972
Public	$ 13,451,779	$ 14,398,500	$ 12,397,016	$ 13,331,297	$ 53,578,593
Industrial	$ 5,971,777	$ 5,861,935	$ 5,711,917	$ 5,629,324	$ 23,174,954
Codes and Standards	$ 4,556,131	$ 4,607,379	$ 4,642,647	$ 4,684,500	$ 18,490,656
WE&T	$ 3,792,704	$ 3,716,065	$ 3,843,276	$ 3,866,538	$ 15,218,583
Emerging Technologies	$ 3,591,173	$ 3,619,103	$ 3,629,530	$ 3,640,966	$ 14,480,772
EM&V	$ 3,186,587	$ 3,356,621	$ 3,305,545	$ 3,437,635	$ 13,286,388
Agricultural	$ 1,070,738	$ 1,174,677	$ 1,264,343	$ 1,357,211	$ 4,866,970
Finance	$ 693,575	$ 535,775	$ 529,030	$ 583,633	$ 2,342,014
Total	$ 79,664,685	$ 83,915,516	$ 82,638,623	$ 85,940,881	$ 332,159,706

Table 8: Forecasted Portfolio Budget 2028-2031

Sector	2028	2029	2030	2031	8-Year Total
Commercial	$ 26,576,147	$ 26,576,147	$ 26,576,147	$ 26,576,147	$ 205,247,392
Residential	$ 22,833,629	$ 22,833,629	$ 22,833,629	$ 22,833,629	$ 179,112,486
Public	$ 13,331,297	$ 13,331,297	$ 13,331,297	$ 13,331,297	$ 106,903,782
Industrial	$ 5,629,324	$ 5,629,324	$ 5,629,324	$ 5,629,324	$ 45,692,252
Codes and Standards	$ 4,684,500	$ 4,684,500	$ 4,684,500	$ 4,684,500	$ 37,228,655
WE&T	$ 3,866,538	$ 3,866,538	$ 3,866,538	$ 3,866,538	$ 30,684,737
Emerging Technologies	$ 3,640,966	$ 3,640,966	$ 3,640,966	$ 3,640,966	$ 29,044,635
EM&V	$ 3,437,635	$ 3,437,635	$ 3,437,635	$ 3,437,635	$ 27,036,929
Agricultural	$ 1,357,211	$ 1,357,211	$ 1,357,211	$ 1,357,211	$ 10,295,814
Finance	$ 583,633	$ 583,633	$ 583,633	$ 583,633	$ 4,676,548
Total	$ 85,940,881	$ 85,940,881	$ 85,940,881	$ 85,940,881	$ 675,923,230

Table 9: Projected Total System Benefits 2024-2027

	2024	2025	2026	2027	4-Year TOTAL
Resource Acquisition	$ 54,606,187	$ 61,063,919	$ 65,086,419	$ 72,874,776	$ 253,631,301
Market Support	$ 12,068,791	$ 15,241,805	$ 12,685,570	$ 12,989,952	$ 52,986,118
Equity	$ 191,583	$ 195,931	$ 224,227	$ 228,831	$ 840,573
Total (without Codes & Standards)	**$ 66,866,561**	**$ 76,501,655**	**$ 77,996,216**	**$ 86,093,559**	**$ 307,457,992**
Codes & Standards	$ 265,698,988	$ 250,313,220	$ 237,139,641	$ 225,575,627	$ 978,727,475
Total (with Codes & Standards)	**$ 332,565,549**	**$ 326,814,875**	**$ 315,135,857**	**$ 311,669,186**	**$ 1,286,185,467**

Table 10: Projected Total System Benefits 2028-2031

	2028	2029	2030	2031	8-Year TOTAL
Resource Acquisition	$ 72,874,776	$ 72,874,776	$ 72,874,776	$ 72,874,776	$ 545,130,405
Market Support	$ 12,989,952	$ 12,989,952	$ 12,989,952	$ 12,989,952	$ 104,945,925
Equity	$ 228,831	$ 228,831	$ 228,831	$ 228,831	$ 1,755,898
Total (without Codes & Standards)	**$ 86,093,559**	**$ 86,093,559**	**$ 86,093,559**	**$ 86,093,559**	**$ 651,832,228**
Codes & Standards	$ 225,575,627	$ 225,575,627	$ 225,575,627	$ 225,575,627	$ 1,881,029,982
Total (with Codes & Standards)	**$ 311,669,186**	**$ 311,669,186**	**$ 311,669,186**	**$ 311,669,186**	**$ 2,532,862,210**

Please refer to Attachment A for the details on program savings and cost effectiveness information.

III. RECOMMENDATIONS FOR NEW OR MODIFIED EE POLICY

SDG&E is proposing the following EE Policy modifications, clarifications and/or enhancements for a more successful implementation of its proposed portfolio. Recommendations are being made to improve efficiency and equity, clarify existing policy and/or general Statewide IOU alignment:

A. MODIFICATION TO THE TWO-STAGE SOLICITATION PROCESS

In this application, SDG&E is proposing a One-Stage, Two-Step solicitation process consistent with recent direction governing solicitations within the Low Income proceeding.[19] This proposal eliminates the Request for Abstract (RFA) phase, puts more focus on the Request for Proposal (RFP), and includes an interview step prior to contracting. SDG&E believes that a One-Stage, Two-Step solicitation process will be more efficient and effective, and will reduce parties' long-term commitment of resources for bidders, the IE, Procurement Review Group (PRG) members and SDG&E. It will also reduce ratepayer costs and enable more timely program offerings. Please see Exhibit 2, Chapter 5 for a more detailed discussion of this proposal.

B. CATEGORIZE THIRD-PARTY PROGRAM SOLICITATION COSTS AS DIRECT IMPLEMENTATION NON-INCENTIVE (DINI) COSTS

D.09-09-047 states, "We therefore clarify here that we accept utility categorization of program planning, design and project management costs as direct implementation non-incentive costs and direct our staff to issue a revised guideline describing the details of administrative costs versus direct implementation costs."[20] The EE Policy Manual provides these guidelines and categorizes the following activities under direct implementation costs:

- Project management activities (i.e., Planning Scope of Work, working with contractors and customers, setting goals, reviewing goals, reacting to market conditions, and responding to customer inquiries (i.e., calls, emails, letters).
- Program planning, development, and design.21 SDG&E has historically interpreted the costs associated with Third-Party program solicitations to be classified as direct implementation non-incentive (DINI) costs. In addition, D.18-01-004 directed the IOUs to use Independent Evaluators (IE) as part of the Third-Party solicitation process. It further defines the various responsibilities of the IE as follows:

  a. Consultation and support to the procurement review groups.

  b. A report on each solicitation to be presented to the appropriate procurement review group.

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[19] D.21-06-015, OP 116 at 500.

[20] D.09-09-047 at 57.

[21] CPUC, Energy Efficiency Policy Manual Version 6 (April 2020), Appendix C: Cost Categories and Related Cap and Targets available at, https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/e/6442465683-eepolicymanualrevised-march-20-2020-b.pdf.

c. A semi-annual report on the overall process and conduct of the Third-Party solicitations, to be filed in the relevant energy efficiency rulemaking proceeding.

d. An individual report on the solicitation process resulting in any contract award valued at $5 million or greater and/or with a contract term of longer than three years, to be submitted along with the Tier 2 advice letter seeking Commission review of such contracts.[22]

SDG&E classifies the Independent Evaluator costs as part of the DINI costs, as they advise on the design and implementation of the solicitation process, including contract negotiations. These costs are part of the program design wherein Third-Party proposals for new programs are evaluated. Therefore, under the Commission's definition, solicitation costs qualify as program design and project management costs are correctly considered direct implementation costs as defined in D.09-09-047 and documented in the EE Policy Manual.

This approach to cost classification appears to have been ignored and modified by D.21-05-031, which redefines Portfolio Administration costs as "Program Administration (i.e., Overhead): Everything else not in Program Implementation. Costs for things like managing a solicitation, negotiating a contract, and reviewing/paying invoices all are part of Administration (this should not be put into the "implementation" bucket)".[23] In reviewing the list of costs, SDG&E recommends a finer differentiation of the various costs. SDG&E does not disagree that reviewing and paying invoices is part of its administrative costs, but all other costs associated with solicitation, which includes contracting, should remain as DINI costs.

Therefore SDG&E proposes that the definition of program administration costs be updated to include reviewing and paying invoices but that all other solicitation and contracting costs remain as DINI costs, since these activities are more accurately associated with project management, program planning, development, and design. If the Commission does not modify the administration cost definition to exclude solicitation costs, there will be upward pressure on the administration budget, which D.09-09-047 capped at 10%,[24] thereby potentially restricting valuable administration activities due to budget pressure within the administration category.

C. APPROVE THE MARKET SUPPORT AND EQUITY METRICS

D.21-05-031 requested CAEECC, through working groups, to develop market support and equity metrics. SDG&E participated in these working groups and supports the working group metric recommendations as described in the working group reports, (1) *CAEECC-Hosted Market Support Metrics Working Group Report and Recommendations to the California Public Utilities Commission and the Energy Efficiency Program*

[22] D.18-01-004 OP 5, at 62-63.

[23] D.21-05-031 at 33.

[24] D.09-09-047, OP 13a at 369.

Administrators (October 6, 2021);[25] and (2) *CAEECC-Hosted Equity Metrics Working Report and Recommendations to the California Public Utilities Commission and the energy Efficiency Program Administrator* (October 20, 2021).[26] These metrics can be found in Attachment A Tab 18.1-Equity Segment Metrics and Tab 18.2-Market Support Metrics. Furthermore, SDG&E recommends that once the Commission adopts these metrics, that the working groups reconvene to develop the appropriate methodologies and data collection requirements. Only after this work is completed will the PAs establish baselines and targets for the portfolio cycle.

[25] *CAEECC-Hosted Market Support Metrics Working Group Report and Recommendations to the California Public Utilities Commission and the Energy Efficiency Program Administrators,* October 6, 2021, available at https://www.caeecc.org/market-support-metrics-wg.

[26] *CAEECC-Hosted Equity Metrics Working Report and Recommendations to the California Public Utilities Commission and the energy Efficiency Program Administrator,* October 20, 2021, available at https://www.caeecc.org/equity-metrics-working-group-meeting.