

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

Order Instituting Rulemaking Concerning Energy
Efficiency Rolling Portfolios, Policies, Programs,
Evaluation, and Related Issues.

Rulemaking 13-11-005

**SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M) ENERGY EFFICIENCY
PROGRAMS ANNUAL REPORT 2020 RESULTS**

PUBLIC VERSION

Erica L. Martin

Attorney For
SAN DIEGO GAS & ELECTRIC COMPANY
8330 Century Park Court, CP 32D
San Diego, California 92123
Telephone: (858) 654-1813
Facsimile: (619) 699-5027
E-mail: emartin8@sdge.com

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Pursuant to the *Administrative Law Judge’s Ruling Adopting Annual Reporting Requirements for Energy Efficiency and Addressing Related Reporting Issues*, dated August 8, 2007 and Decision (“D.”) 18-01-001 and D. 18-05-041, San Diego Gas & Electric Company (“SDG&E”) hereby submits its Annual Report for 2020 Energy Efficiency programs and accomplishments.

SDG&E’s Annual Report addresses the various energy efficiency activities and results affecting water use, activities authorized as part of the water-energy nexus, and other programs that impact water use across the energy efficiency portfolio, as well as energy and water savings, and spending resulting from these activities, as required by D.16-06-010 Ordering Paragraph (“OP”) 9. This Annual Report also includes Performance Metrics and 2020 performance results as required in D.18-05-041, OP 9.

Finally, pursuant to OP 1 and OP 8 of D.18-01-004, the dollar amounts of third-party contracts (provided in aggregate) are included in Table 11 of Appendix A of the Annual Report. In addition, Table 11 demonstrates SDG&E’s compliance with Public Utilities Code Section 1613, by incorporating the authorized AB 841 programs budget which are considered qualifying third party programs as defined by D.16-08-019. As directed by the Investor Owned Utility who

is acting as the Statewide lead, particular contract dollar amounts will be provided confidentially to the Commission. SDG&E is filing the public and confidential versions of the report showing current third-party-program contracts. The public version of the report will be served. SDG&E's Annual Report and associated documents are also uploaded and available for viewing on the California Public Utilities Commission's data systems: (1) California Energy Data and Reporting System ("CEDARS") website; and (2) California Energy Efficiency Statistics ("EESTATS"). The report and the Updated Set of Final Metrics are available on SDGE.com.

Respectfully submitted,

/s/ Erica L. Martin
Erica L. Martin

Attorney for
SAN DIEGO GAS & ELECTRIC
COMPANY
8330 Century Park Court, CP32C
San Diego, CA 92123
Telephone: (858) 654-1813
Facsimile: (619) 699-5027
E-mail: emartin8@sdge.com

/s/ Tashonda Taylor
Tashonda Taylor

Vice President of Customer
Operations
SAN DIEGO GAS & ELECTRIC
COMPANY
8330 Century Park Court, CP32C
San Diego, CA 92123
Telephone: (858) 654-1669
Facsimile: (858) 435-1575
E-mail: ttaylor@sdge.com

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SAN DIEGO GAS & ELECTRIC COMPANY

ENERGY EFFICIENCY PROGRAMS ANNUAL REPORT 2020 RESULTS



TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

2021 Energy Efficiency Portfolio Outlook..... 6

STATEWIDE RESIDENTIAL ENERGY EFFICIENCY PROGRAMS 8

 A. SDGE3201 SW CALS – Energy Advisor – HEES (UAT)..... 8

 B. Statewide CALSPREE – Plug Load and Appliance 9

 1. SDGE3203 SW-CALS – Plug Load and Appliance – HEER 9

 2. SDGE3204 SW-CALS – Plug Load and Appliances – POS Rebates 10

 C. SDGE3207 SW-CALS Multifamily Energy Efficiency Rebate Program 11

 D. SDGE3209 SW-CALS EUC WHRP - Advanced Home Upgrade..... 13

STATEWIDE COMMERCIAL ENERGY EFFICIENCY PROGRAMS 15

 A. SDGE3217 SW-COM-Customer Services – Audits Non-Res..... 15

 B. SDGE3220 SW-COM-Calculated Incentives-Calculated 16

 C. SDGE3222 SW-COM-Calculated Incentives – Savings By Design 17

 D. SDGE3223 SW-COM-Deemed Incentives – Commercial Rebates..... 18

STATEWIDE INDUSTRIAL ENERGY EFFICIENCY PROGRAMS 20

 A. SDGE3227 SW-IND-Strategic Energy Management..... 20

 B. SDGE 3229 SW-IND-Customer Services – Audits Non-Res 22

 C. SDGE3231 SW-IND-Calculated Incentives-Calculated 23

 D. SDGE3233 SW-IND-Deemed Incentives..... 24

STATEWIDE AGRICULTURAL ENERGY EFFICIENCY PROGRAMS 26

 A. SDGE3236 SW-AG-Customer Services – Audits Non-Res 26

 B. SDGE3237 SW-AG-Calculated Incentives-Calculated..... 27

 C. SDGE3239 SW-AG-Deemed Incentives 28

LOCAL INSTITUTIONAL PARTNERSHIPS..... 30

 A. SDGE3266 LInstP-CA Department of Corrections Partnership 30

 B. SDGE3267 LInstP-California Community College Partnership 31

C.	SDGE3268 LInstP-UC/CSU/IOU Partnership	33
D.	SDGE3269 LInstP-State of California/IOU Partnership	35
E.	SDGE3270 LInstP-University of San Diego (USD) Partnership	36
F.	SDGE3271 LInstP-San Diego County Water Authority Partnership	39
	1. Commercial Kitchen (Small/Med. Businesses) Direct- Installation Instant Rebate WEN Program.....	39
	2. Multifamily Direct- Installation Instant Rebate WEN Program.....	40
	3. Mobile Home Direct- Installation Instant Rebate WEN Program.....	40
	LOCAL GOVERNMENT PARTNERSHIPS:.....	41
A.	SDGE3272 LGP – City of Chula Vista Partnership	41
B.	SDGE3273 LPG – City of San Diego Partnership	43
C.	SDGE3274 LGP – County of San Diego Partnership	45
D.	SDGE3275 LGP – Port of San Diego Partnership.....	47
E.	SDGE3276 LPG – SANDAG Partnership.....	49
F.	SDGE3277 LGP – SEEC Partnership.....	50
G.	SDGE3278 LPG – Emerging Cities Partnership	52
	STATEWIDE EMERGING TECHNOLOGIES PROGRAMS	54
A.	SDGE3246 SW-ET – Technology Introduction Support	54
B.	SDGE3247 SW-ET – Technology Assessment Support	56
C.	SDGE3248 SW-ET – Technology Development Support.....	57
	STATEWIDE FINANCE PROGRAM.....	60
A.	SDGE3262 SW-FIN – On-Bill Finance	60
	STATEWIDE CODES AND STANDARDS PROGRAM	61
A.	SDGE3251 SW-C&S – Compliance Enhancement.....	64
B.	SDGE3252 SW-C&S – Reach Codes	66
C.	SDGE3253 SW-C&S – Planning & Coordination	70
	STATEWIDE INTEGRATED DEMAND SIDE MANAGEMENT (IDSM)	72
A.	SDGE3260 Local-IDSM-ME&O – Local Marketing (EE).....	72
B.	SDGE3261 Local-IDSM-ME&O – Behavioral Programs (EE).....	77

C.	SDGE3282 SW-IDSMS – IDSMS	79
	STATEWIDE WORKFORCE EDUCATION & TRAINING (WE&T)	84
A.	SDGE3254 SW-WE&T – Integrated Energy Education Training (IEET).....	84
B.	SDGE3255 SW-WE&T – Career Connections.....	86
	THIRD PARTY PROGRAMS (Pre-2019 Programs).....	88
A.	SDGE3226 (3P) SW-COM Direct Install	88
B.	SDGE3279 (3P) Res-Manufactured Mobile Home	89
C.	SDGE3280 (3P) Innovative Designs for Energy Efficiency Activities (IDEEA) 365	90
D.	SDGE3322 (3P) – Streamlined Ag Efficiency Program.....	92
E.	SDGE4061 (3P) – Facility Assessment Services	93
	New Third Party Programs	94
A.	Local Programs	95
1.	SDGE4002 Multi-Family Program.....	95
2.	SDGE4003 Small Commercial Program	96
3.	SDGE4004 Comprehensive Energy Management Solutions (CEMS) Program	96
B.	New Statewide Programs.....	97
1.	Statewide Codes & Standards Programs.....	98
2.	SDGE_SW_HVAC_Up - SW Upstream HVAC Commercial Program	103
3.	SDGE_SW_PLA- Statewide Plug Load & Appliance	104
4.	SDGE_SW_ETP_Gas - SW Emerging Technologies – Gas.....	104
5.	SDGE_SW_MCWH – Statewide Midstream Commercial Water Heating.....	104
6.	SDGE_SW_FS – SW Food Service Point of Sale.....	105
7.	SDGE_SW_UL – CA Statewide Lighting Program.....	105
8.	SDGE_SW_IP_Colleges – Statewide Higher Education Program.....	106
9.	SDGE_SW – Water/Wastewater Pumping Program	106
10.	SDGE_SW_ETP_Electric – Electric Emerging Technologies Program	106

HIGH OPPORTUNITY PROJECT OR PROGRAMS (HOPPS)	107
A. SDGE3317 HOPPs Retrocommissioning (RCx)	107
Water Energy Nexus Activities	110
OTHER ENERGY EFFICIENCY ACTIVITIES AND PROGRAMS	113
A. SDGE3259 SW-ME&O	113
B. SDGE3281 EM&V – Evaluation Measurement and Verification	113
C. Statewide Finance Pilots Program Description	114
D. California Analysis Tool for Locational Energy Assessment (CATALENA)	115
E. Portfolio Operations and Compliance Process Enhancements	117
APPENDIX A ANNUAL REPORT TABLES	119

EXECUTIVE SUMMARY

2020 proved to be a year of collective global challenges brought on by the COVID-19 pandemic. The Commission acknowledged the serious impacts of this pandemic on energy efficiency,

The most recent and unexpected new issue to arise in the course of this proceeding is the unprecedented impact that the COVID-19 pandemic has had on public health and the economy, which has also hampered the energy efficiency industry in California. On March 19, 2020, California issued a shelter-in-place order, which resulted in the program administrators suspending their energy efficiency programs requiring face-to-face interactions with customers. Along with the associated shelter-in-place orders, the pandemic has led to an unprecedented reduction in the ability of energy efficiency implementers and contractors to deliver certain types of energy savings projects in the homes and businesses of California electricity and natural gas consumers. In addition, the pandemic and resulting economic impact has resulted in a decline in customer demand for many of the program administrators' equipment rebate programs, causing uncertainty for the administrators and their third-party implementers about energy savings forecasts.¹

In response to these challenges, SDG&E took swift action to ensure that the safety and health of our employees, contractors and customers remained our highest priority throughout the rest of the year. On March 20, 2020, SDG&E suspended program activity requiring face-to-face interactions, such as its Direct Install and in-person audits. Other programs not requiring face-to-face interactions continued to operate. As conditions improved in May 2020, the Commission directed the utilities to inform their program implementers and contractors to follow state or local guidance on the allowance of construction projects and in-building renovations.² Through extensive collaboration with our implementers, contractors, partners and stakeholders in our region and across the State, combined with timely interventions and strategies, SDG&E was able to continue supporting its customers by delivering energy and bill savings.

In spite of the impacts of COVID-19, in 2020, SDG&E's energy efficiency core programs achieved significant savings, although they were just short of its Commission core program goals. SDG&E's core programs achieved approximately 12.5 MW (84% of 15 MW), 78 GWH (99% of 79 GWH) and 1.8 million therms (89% of 2.0 million therms). Through the combined program efforts of SDG&E's core portfolio and impacts from the Codes & Standards program, SDG&E customers saved approximately 571 gigawatt hours (GWH), 95 megawatts (MW), and 4.8 million therms. These significant gas and electric savings, achieved while in the midst of a global pandemic, reflects the success of our strategies and interventions and the

¹ R.13-11-005 *Assigned Commissioner and Administrative Law Judges' Amended Scoping Ruling Addressing Impacts of COVID-19*, July 3, 2020, at 3.

² Alice Stebbins to Pacific Gas and Electric Company, San Diego Gas & Electric Company, MCE Clean Energy, County of Ventura, City of Lancaster, southern California Edison, Southern California Gas Company, Association of Bay Area Governments, LA County of Office of energy and environmental services, May 21, 2020, Office of the Executive Director, California Public Utilities Commission, Subject Guidance on Energy Efficiency and Energy Savings Assistance program Suspensions.

progress made towards supporting the State’s goal of reducing greenhouse gas (GHG) emissions. The portfolio lifecycle energy savings resulted in a reduction of approximately 2.2 million tons of CO₂, the equivalent of removing approximately 443 thousand cars from the road.³ SDG&E’s energy efficiency portfolio provided potential customer lifecycle bill savings of approximately \$1.9 billion.

Noteworthy highlights of SDG&E’s 2020 programs are:

- In response to the economic impacts of COVID-19 on our customers in 2020, SDG&E added measures, increased customer incentives, and a contractor incentive for achieving installation targets on certain measures to encourage adoption. Rebates were increased for lighting, heating, air conditioning and controls. Working with the other statewide Investor-Owned Utilities (IOUs) to directly support the COVID-19 vaccine rollout, SDG&E also increased rebates for certain freezers that met specific criteria for vaccine storage.
- In response to the pandemic, SDG&E transitioned inspections to a virtual environment, reducing delays in project validation. This allowed customers to receive rebates and incentive payments for completed projects and helped continue the adoption of energy efficiency in our region.
- In the Workforce Education & Training (WE&T) and Codes & Standards (C&S) programs, SDG&E set up virtual classrooms to minimize the impact of State and local pandemic protocols restricting in-person gatherings. The transition of our WE&T and C&S training programs to a virtual environment was implemented swiftly and efficiently. This resulted in a higher participation rate as compared to previous years, while also maintaining high customer satisfaction. Overall participation enrollment in WE&T and C&S trainings combined increased by 16% compared to 2019.
- SDG&E offered a six-month deferral for On Bill Financing (OBF) loan repayment(s) to new eligible non-residential customers to provide financial relief due to the pandemic. SDG&E also expanded its marketing campaign to aid increased customer awareness.
- SDG&E’s Behavioral Program Home Energy Report, which was distributed to more than 815,000 of SDG&E residential customers in 2020, assisted residential customers in managing their energy use while living and working from home for much of 2020. The Home Energy Reports were updated with new COVID-19 focused messaging and energy efficiency messages and tips.
- In 2020, SDG&E worked to streamline the Custom Measure Project Archive (CMPA) and related processes. SDG&E strengthened communications with customers during this lengthy process to

³ Total number of cars was calculated using the Environmental Protection Agency GHG calculator at <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

keep them better informed as to the status of their projects. SDG&E led a team of representatives from the IOUs and the CPUC to update the CMPA submittal process. SDG&E enhanced its internal processes to further streamline and ensure accuracy of submittals to the CPUC for project review.

- SDG&E’s annual Energy Showcase was re-imagined in 2020 and the “Showcase in a Box” was created. The awards presented at the Energy Showcase provided an opportunity to recognize customers, projects, partnerships, and collaborative efforts that have an impact on our region but may not be tied to a specific energy efficiency project. This innovative idea provided each winner with a customized video showcasing their achievement, media templates to publicize their achievement, congratulatory messages from SDG&E executive leadership and the Excellence in Energy Leadership Award. SDG&E recognized the winners through SDG&E social media accounts and a published press release boosting their exposure to peers and local media outlets. The 2020 winners are Bartell Hotels, MC Properties, San Diego Habitat for Humanity, City of La Mesa, Palomar Community College District and Viasat.
- 2020 marked the conclusion of our five-year Local Government Partnership programs (collectively known as Partners). During this five-year period, the Partners and SDG&E together achieved many successes that advanced energy efficiency and climate planning throughout the region.
 - Climate Action Plans (CAPs) have been developed and adopted for 17 local governments across the territory, representing a significant driver of energy efficiency program participation and other zero net energy initiatives. SANDAG played a primary role in CAP development with their Regional Climate Action Plan (ReCAP) Framework that standardized and streamlined this process greatly assisting smaller jurisdictions in what is often an arduous process.
 - Educating the public on energy efficiency has been a primary objective, with each Partner engaging their communities through various strategies. The City of Chula Vista implemented a free afterschool program for youth ages 5 to 13 called the Empower Hour that in the past five years has engaged over 60,000 youth with new science experiments, an energy efficiency survey, and “reading time” to educate on related topics. In addition, at the Chula Vista Civic Center Library approximately 6,000 six graders and additional members of the public visited the Smart City energy efficiency display. The City of La Mesa and County of San Diego developed DIY Energy Efficiency Toolkits distributed through their local libraries showing residents how to update their homes with energy efficiency and water-saving measures. The City of San Diego and Port of San Diego each leveraged Green Business Networks to educate businesses about energy efficiency programs and other resources towards sustainability goals.

- Each Partner has also made significant progress to update their own building and facility energy efficiency demonstrating their commitment to leading by example. Since 2016, this group of customers saved approximately 17M kWh, 1900 kW and 130k therms from projects within their municipal footprint. The SDG&E Local Government Partners also established robust municipal energy plans and roadmaps to chart a thoughtful path forward to continue energy efficiency and GHG reductions. These plans include comprehensive energy efficiency audits and analyses that pinpoint savings and serve a critical role to align projects with maintenance schedules, secure council approvals, and acquire funding needed to undergo energy efficiency upgrades. In many cases these plans also include building automation systems and energy management systems that enable more whole building savings potential.
- Local governments in the SDG&E region also exercised their authority in the area of code compliance and reach codes. Partners adopted ordinances to increase the use of energy efficiency for residents and businesses, as well as to ensure building benchmarking in alignment with AB802. Over the past five years, the focus on energy efficiency reach codes has sharpened and jurisdictions are recognizing their role in driving GHG reduction.
- In 2020, as the lead utility for Water Energy Nexus (WEN) efforts, SDG&E updated the statewide workpapers for deemed measures offered by the IOUs and Metropolitan Water District (MWD). In addition, SDG&E worked with the San Diego County Water Authority to offer joint rebates for water and energy saving measure targeting commercial kitchens.
- SDG&E continued to test various strategies for integrating demand response capability with existing energy efficiency activities throughout 2020. Three projects were selected to participate in the program based on audits completed through the Comprehensive Audit Program, one of them being the Sweetwater Union High School District Office. The project included the installation of energy efficient lighting and controls, the replacement of two HVAC units, and the installation of a new battery storage unit to offset energy demand during Demand Response events. The project will be completed in 2021.
- By the end of 2020, SDG&E had successfully completed solicitations, filed contract advice letters (ALs) and received approval for four of its third party implemented programs. SDG&E has signed contracts and is contributing 46 percent of its 2021 portfolio budget (67 percent including AB 841

funds)⁴ to third party programs which exceeds the Commission’s requirement to outsource at least 40 percent of its 2021 EE portfolio budget by the end of 2020. As a result, several of our legacy programs were shut down at the end of 2020 as the following new third party implemented programs have launched:

- Small Commercial, local
 - Large Commercial, local
 - Multifamily, local
 - Upstream Heating, Ventilation and Air-Conditioning (HVAC), Statewide
- An innovative and noteworthy achievement as the new Statewide and local programs begin implementation, was the development of a framework to prevent overlap of savings attribution between statewide and local programs. The IOUs, with guidance from the CPUC, developed a solution which requires that the statewide program implementer develop and maintain a catalog of measures being offered in their statewide program and make the catalog available to all EE implementers and stakeholders.

Overall, through the activities we pursued in 2020, SDG&E continued to promote and sustain awareness of the benefits of energy efficiency and deliver significant energy efficiency savings. SDG&E continued to design a comprehensive 2021 portfolio and future program solicitations. As such, SDG&E’s portfolio strategy remains committed to the State’s goal of doubling energy efficiency savings by 2030, while prioritizing safety and convenience for our customers and stakeholders.

⁴ D.21-01-004 states, “Section 1613 makes clear that the SRVEVR and SNPFA programs shall be considered a third-party program for compliance with D.16-08-019,” at 18.

2021 ENERGY EFFICIENCY PORTFOLIO OUTLOOK

SDG&E's energy efficiency programs continued to advance local and state energy savings in 2020. SDG&E's objective is to continue the transition of our programs and offerings to a market-based delivery through the third party implementer model. SDG&E continues to solicit the market and expects to execute new third party contracts for additional local programs, as well as its Statewide Plug Load and Appliance program by the end of 2021, thereby outsourcing an even greater percentage of its portfolio in 2021. SDG&E will continue to implement existing programs while concurrently soliciting and launching new ones and winding down legacy programs.

The launch of the new third party programs has been exciting for our energy efficiency teams as our customers will be served under newly designed programs by a single implementer for each market sector for all their energy efficiency needs. SDG&E has been partnering with our third party implementers to proactively set up processes and procedures to ensure success of the programs that have been launched, as well as continue transitioning its internal operations to focus on our role as Portfolio Administrator. Diligent oversight to ensure implementers are on track to meet their program savings targets, remain cost-effective, meet contract metrics and overcome challenges through mutual partnership will be central to SDG&E's efforts in 2021. Our teams are also collaborating with other IOU teams to ensure that Statewide program protocols around savings attribution, customer data sharing, funding mechanisms and other program activities are coordinated, and clearly defined procedures and processes are established.

SDG&E is committed to delivering and supporting the goal set forth by the State of California to double energy efficiency by 2030. To that end, SDG&E is actively engaged with the CPUC to evolve the rolling portfolio business model, including determining the scope and timing of the next iteration of the energy efficiency business plan application.

On September 30, 2020 Assembly Bill (AB) 841 established the School Energy Efficiency Stimulus Programs, which is comprised of the School Reopening Ventilation and Energy Efficiency Verification and Repair (SRVEVR) and the School Noncompliant Plumbing Fixture and Appliance (SCPFA) programs. These programs will be administered by the California Energy Commission and will be coordinated with the IOU local programs in each of their service territories from 2021 - 2023. Funding for these programs will come from EE 2020-2022 uncommitted unspent program funds and a specified percentage of difference between the IOUs authorized Business plan budgets and the approved 2020 EE budget over the program cycle. These program funds are considered third party program funding and as such will count towards the IOU's third party program compliance requirements. SDG&E will begin transferring quarterly program funds to the CEC beginning April 1, 2021. SDG&E will coordinate its applicable programs with the CEC to provide comprehensive EE services and support to the schools in its service territory.

While the impacts of COVID-19 on the economy and the energy efficiency marketplace continue into 2021, California and our region appear to be buoyed by the vaccine rollout and its enthusiastic adoption. SDG&E is optimistic about the prospects of economic growth and energy efficiency adoption in its region and expects to leverage the ramp-up strategies and tools that are in place to support its customers, contractors and stakeholders.

STATEWIDE RESIDENTIAL ENERGY EFFICIENCY PROGRAMS

A. SDGE3201 SW CALS – Energy Advisor – HEES (UAT)

Program Description

This program is a continuation of the existing Statewide Energy Advisor Program (formerly known as the Home Energy Efficiency Survey-HEES Program) within the residential energy efficiency portfolio. Although the four California investor-owned utilities (IOUs) share similar program theories, goals, and design elements, each IOU may be implementing a unique tool by a different vendor.

In 2020, the Energy Advisor Program continued to help customers understand their energy use through various tools and educational opportunities. The program utilizes behavioral outreach initiatives and interactive tools designed to engage and encourage customers to reduce their energy consumption through program recommendations, and as warranted, Integrated Demand Side Management (IDSM) opportunities. Additional tools that are available to customers through the program are usage analysis and household usage data comparison, as well as literature and information on how customers can save money and energy. These tools utilize smart meter data or a customer's self-reported data to provide a detailed overview of how energy is used in their household and what can be done to save energy and money.

Implemented Strategies

In 2020, SDG&E continued to promote the residential online audit tools implemented behind the customers' *My Account* credentials and on the Home Energy Report (HER) customer portal. Administering both platforms allowed for greater reach to residential customers.

The HER platform also allowed customers to earn points and rewards for audit completion; 2020 marketing campaigns prompted customers to add household information to enable more relevant recommendations and HER comparisons.

Challenges/Changes for 2021

Program year 2021 will continue to include widely promoted energy efficiency alerts and online audits available on the HER customer platform, to address potential energy usage increases due to ongoing COVID-19 restrictions during Q1 and Q2 of 2021. SDG&E is continuing to expand participation in the program to assist customers with recommendations on how to manage their energy usage and utilize tips and recommendations. The recently approved workpaper for online audit offerings will allow savings to be calculated and claimed.

2020 Program Accomplishments.

Online audits available for customers on both platforms resulted in more than 5,000 completed audits and action plans for residential customers. The conversion rate for those that began the online audits

associated with Home Energy Reports platform averaged 86% over the 12- month period. In response to stay-at-home orders due to COVID-19, marketing efforts were prioritized to promote the use of the online audit to Home Energy Report recipients as well as all residential customers.

B. Statewide CALSPREE – Plug Load and Appliance

The Plug Load and Appliance (PLA) Program develops and builds upon existing retailer relationships and point of sale strategies. It is comprised of two subprograms: Home Energy Efficiency Rebate (HEER) and Point of Sale (POS) subprograms. The two PLA subprograms offer incentives to customers to purchase and install high-efficiency products (such as ENERGY STAR®) and work with key marketers to drive the adoption of more energy-efficient products.

1. SDGE3203 SW-CALS – Plug Load and Appliance – HEER

Program Description

The PLA-HEER subprogram consisted of SDG&E Marketplace through which rebate eligible products have been showcased to customers. Rebate eligible product categories included Smart Thermostats, Electric Heat Pump Water Heaters, Gas Water Heaters, and Pool Pumps.

Implemented Strategies

Rebate eligible products were marketed to customers through banner ads and search engine ads. When customers landed on Marketplace, the rebate eligible products were highlighted with a tag showing their respective rebate amounts. When customers clicked on “Claim Rebate” button, they were directed to sdge.com/rebates page where they could take advantage of the rebate.

Challenges/Changes for 2021

The Marketplace portal has been shut down, effective December 31, 2020. Rebates are now being offered through SDG&E’s website www.SDGE.com/rebates. SDG&E is currently in contract negotiations for the Statewide PLA program and expects to have the new program in place in the third quarter of 2021. Therefore, once the SW PLA program is fully launched the local PLA program will be executing program ramp down activities to close the program. This process will ensure that there is no gap in service for SDG&E’s customers.

2020 Program Accomplishments

Marketplace was able to generate considerable traffic with approximately 166,000 customer visits to the www.SDGE.com/rebates page. Throughout 2020, Marketplace was regularly updated to display a wide selection of rebate eligible products, thus helping customers save on their energy and bills during the

pandemic.

2. SDGE3204 SW-CALS – Plug Load and Appliances – POS Rebates

Program Description

The Plug Load and Appliances (PLA) – Point of Sale (POS) Subprogram provides midstream and upstream rebates to customers, while optimizing the customer experience. This program leverages retailer, distributor, contractor, and manufacturer relationships to offer customers incentives for high-efficiency product purchases. The PLA - POS Subprogram provides rebates at checkout, removing traditional downstream program barriers like limited impact and cumbersome customer application process. POS is the main tool used for rebating energy efficient products for SDG&E’s residential customers.

Implemented Strategies

In 2020, SDG&E’s PLA - POS Subprogram continued to work with retailers and distributors to increase customer participation in midstream and upstream channels. Prior to the onset of COVID-19, the Program continued to make store visits and conduct in-store associate trainings to ensure that retailers and distributor staff were well versed with the POS process and current offerings. In-store trainings consisted of meeting with store and/or department management, supervisors and sales lead associates to review program details and/or updates. PLA - POS signage in stores was updated when program changes occurred as well as when the program realized opportunities for increased customer awareness. Due to the COVID-19 pandemic, the Program had to minimize in person store visits and instead developed other methods of keeping industry partners engaged. For example, the program held a heat pump water heater webinar for installers with a presentation by national heat pump water heater manufacturers. This webinar had approximately 50 attendees. The Program deployed various marketing campaigns to increase customer participation. For each measure category, pool pumps, smart thermostats, and water heaters, a different marketing effort was utilized. For the pool pump measure, the Program deployed three emails to customers promoting the pool pump rebate during the summer months. Next, the smart thermostat measures were promoted during the holiday season as a reminder for customers to take advantage of this rebate as it ended on December 31, 2020. Lastly, the heat pump water heater rebate was marketed through a combination of emails and a mailer specifically targeted to SDG&E’s electric-only customers. These marketing efforts combined with an increase of the heat pump water heater rebate in September contributed to a notable increase in participation (detailed in Accomplishments below).

Challenges/Changes for 2021

For 2021, the Program has removed the smart thermostat measure as an offering. This was due to the fact that the majority of SDG&E’s climate zones are not ideal for thermostat savings, which is reflected in the approved savings assumption workpaper update earlier this year.

Clothes Washers will also not be offered in 2021, as the measure proved unfeasible in 2020 due to low rebate value, which resulted in big box retailers losing interest in providing a markdown. Strategies to address these challenges in 2021 include targeted marketing on products with high savings such as heat pump water heaters and variable speed pool pumps. In order to drive further activity in the pool pump rebate, the program is reviewing the current rebate submission process to remove any inefficiencies to allow for greater participation. While electric heat pump water heaters have been historically challenging to promote due to their relatively high cost, the program plans to actively promote the new rebate amount of \$500 amongst midstream industry partners as well as residential customers with electric water heating.

SDG&E is currently in contract negotiations for the Statewide PLA program and expects to have the new program in place in the third quarter of 2021. Therefore, once the SW PLA program is fully launched the local PLA program will be executing program ramp down activities to close the program. This process will ensure that there is no gap in service for SDG&E's customers.

2020 Program Accomplishments

The Program successfully implemented the pool pump rebate to all qualifying models on the Energy Star list, with many of these models already available at participating retailers and distributors. The Program enrolled 4 distributors and one retailer with locations varying across the SDG&E territory to better serve all SDG&E customers. Even with the challenges of COVID-19, a steady stream of sales continued to be submitted each month. Additionally, the Program was able to successfully implement a Notice at Collection for all customers participating in the pool pump rebate making them aware of the customer data collected and how SDG&E uses that data. Marketing tactics were also deployed to drive residential customer awareness of the pool pump rebate, with a combination of targeted email blasts and promotions on social media. In the fourth quarter, sales for pool pumps ended strong with almost 600 rebates issued; double the volume of the third quarter. At the end of the second quarter the Program increased the rebate of heat pump water heaters from \$250 to \$400 to increase customer participation for the 2020 Program Year and increased the rebate further to \$500 in September. The increase in sales corresponded to these updates, as the sales of heat pump water heaters in the second half of the year were approximately 2.5x more than the first six months. Finally, the smart thermostat measure closed on a strong note, as sales increased dramatically in the fourth quarter, likely due to customer awareness that the offer was ending at the close of the year. Even though 2020 was the third year of offering a \$75 rebate for smart thermostats, the total volume rebated in 2020 nearly surpassed the previous year's total.

C. SDGE3207 SW-CALS Multifamily Energy Efficiency Rebate Program

Program Description

The Multifamily Energy Efficiency Rebate (MFEER) Program is geared towards property owners,

property managers and tenants of residential multifamily dwelling units. The MFEER Program is designed to complement SDG&E's residential energy efficiency portfolio by providing comprehensive energy efficiency measures to such customers within its service territory. An additional objective of the program is to help customers realize both short-term and long-term energy savings in a cost-effective manner and to increase customer knowledge of energy efficiency. In 2020, this program used the direct install approach to allow property owners and their tenants to take advantage of the no-to-low-cost measures, efficient showerheads, aerators, fan delay controllers and smart thermostats offered by the program. The MFEER Program offers a variety of incentives to motivate multifamily property owners and managers to install energy efficiency products. These products can be installed in both common areas and dwelling units of multifamily complexes and condominiums. Eligible customers include property owners, managers and authorized agents of existing residential multifamily complexes with two or more dwellings.

Implemented Strategies

In 2020 the MFEER Program continued to integrate with the other programs that SDG&E offers (e.g. ESA, CARE, CMHP, BES, etc.) to the multifamily sector to ensure that all the multifamily solutions are presented to the property owner and/or management company. In 2020, SDG&E continued to utilize the Single Point of Contact (SPOC) approach to provide a "one-stop shop" customer solution. The SPOC coordinates common area and in-unit enrollments of all multifamily programs, so they act as one comprehensive, whole building program from the participant's perspective. In 2020, SDG&E continued to remain focused on optimizing measure mix and measure costs of the program in order to improve cost effectiveness. For example, SDG&E worked with the program implementer to identify new cost-effective measures that could be introduced into the program. As a result, a residential pipe wrap measure was added to the program's offering. SDG&E worked with the implementer to come up with a more robust comprehensive measure mix that proved to be beneficial to unique market conditions presented by COVID-19 and the unique needs of multifamily customers. These strategies allowed SDG&E to pursue the program's goal of maximizing efficiency while incentivizing the installation of energy efficient products within the residential multifamily market segment.

Challenges/Changes for 2021

The COVID-19 pandemic was the largest challenge in 2020. To prevent the spread of the virus, multifamily owners and operators did not allow the installation of energy efficiency measures within the units of their communities from March through December 2020. The program adapted by including residential pipe wrap as a new program measure and installing it in the common areas and outdoor water heater closets of multifamily units. The program also continued to install T8 LEDs in common areas throughout the year. The implementer followed strict COVID-19 protocols to ensure the safety of SDG&E

customers, employees, and their staff.

As deemed savings are regularly updated, SDG&E continued to analyze the different measures offered in the MFEER program. Although this program had limited cost-effective offerings, T8 LED fixtures, low flow showerheads, pipe wrap, and faucet aerators were made available to multifamily in-unit dwellings until March and for common areas throughout 2020. These measures had updated statewide workpapers that helped retain their cost-effectiveness. In addition, SDG&E incorporated the Hard-to-Reach (HTR) net to gross value for those program participants that qualified within the Multi-Family market.

The Multifamily Energy Efficiency Program closed December 31, 2020. The new Residential Zero Net Energy Transformation (RZNET) Program will serve this market segment in 2021.

2020 Program Accomplishments

In 2020 the MFEER program successfully delivered a comprehensive mix of offerings ranging from smart programmable thermostats and programmable variable speed drive pool pumps, to air conditioner (AC) Diagnostics and low flow showerheads. The program continued to operate via a Direct Install delivery mechanism which is a no-cost to low-cost customer offering. This ultimately aided participant to overcome the main market barrier (cost). These efforts supported program participation and awareness, therefore, promoting the benefits of energy efficiency across SDG&E's service territory.

D. SDGE3209 SW-CALS EUC WHRP - Advanced Home Upgrade

Program Description

The Advanced Home Upgrade program provides assistance and incentives for home improvement projects that can increase energy efficiency and make homes more comfortable. The program provides an incentive for a comprehensive, whole-house approach that includes improvements such as heating, air-conditioning, water heating, duct sealing and insulation. Energy savings for these home upgrades are calculated using a comprehensive energy modeling approach.

Implemented Strategies

The main goal of the Program was to allow residential single-family customers an avenue to achieve energy efficiency within their homes. This program is a non-resource program, and no savings are claimed for these projects. Approximately 75 single family homes were served in 2020. The focus for 2020 was to make the program efficient as possible in terms of customer experience.

Challenges/Changes for 2021

The main challenge faced by this program was the decrease in participation caused by the state-mandated shutdowns due to COVID-19. The program struggled to gain traction as a main component of the program is the verification and installation of the equipment in the customer's home. In response to the

COVID-19 global pandemic and in the interest of SDG&E employee, customer and contractor health and safety, on March 20, 2020 program activities requiring face- to-face interaction were suspended. This impact can be seen in lower program participation in 2020 than what was forecasted for the year.

Due to the challenges the program has faced and the impending planned launch of the new third-party residential single-family program, the Advanced Home Upgrade program was closed as of December 31, 2020. A new statewide residential new construction programs, administered by PG&E, will be in place in 2021.

2020 Program Accomplishments

Although the Advanced Home Upgrade program faced participation challenges surrounding COVID-19 pandemic, the program successfully enrolled and helped over 70 customers who were upgrading their homes.

STATEWIDE COMMERCIAL ENERGY EFFICIENCY PROGRAMS

A. SDGE3217 SW-COM-Customer Services – Audits Non-Res

Program Description

The Comprehensive Audit Program is an Integrated Demand-Side Management (IDSM) audit offered to commercial customers. The program provides customers with a comprehensive audit report that is equivalent to an American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Level 1 or 2 report. SDG&E offers two types of audits: 1) ASHRAE Level 1 audit, which consists of a high-level walkthrough that provides an equipment inventory and high-level payback estimates of identified energy efficient measures; and 2) ASHRAE Level 2, which is a more detailed analysis of selected measures with investment-grade savings and financial calculations and deliverables. The Level 2 audit is geared toward businesses that plan to implement recommended measures within one year of the audit being completed. As an IDSM program, audit scope and reports for both Level 1 and Level 2 audits include energy efficiency, demand response and distributed generation opportunities. These audits are performed by vetted engineering firms and the audit report delivers valuable insights about how and where energy is being consumed. The program is designed to provide businesses with a roadmap on various actions they can take to reduce their overall energy consumption and effectively reduce operating costs.

Implemented Strategies

The Comprehensive Audit Program had fewer audits performed at customer sites in 2020 compared to the last 2 years. The decrease in the number of audits was mainly due to customer participation with the ASHRAE Level 2 audit (which is a longer and larger audit) as compared to completing the ASHRAE Level 1 audit. Vendors and SDG&E personnel continued to deliver qualified leads for the program, and customers were successful in submitting online audit requests via SDG&E's website portal. Audits were performed for various business types including military, universities, hospitality facilities, office buildings and retail stores. A majority of audits performed were Level 1 audits, which resulted in the customer receiving a report that includes a complete inventory of their energy consuming equipment. SDG&E also performed Level 2 audits for customers who had previously completed a Level 1 audit. The Level 2 audit was performed based on specific measures from the Level 1 report, allowing for a comprehensive site evaluation.

Challenges/Changes for 2021

Historically there have been more audit requests than available funding. SDG&E ensures that the program has a comprehensive mix of customer types, and customers who have previously requested an audit and not received one are being prioritized in 2021.

In response to the COVID-19 pandemic and in the interest of SDG&E employee, customer and contractor health and safety, on March 20, 2020 program activities requiring face-to-face interaction were suspended. As a result, SDG&E transitioned this program to remote or virtual audits to the extent possible, to continue to assist customers.

The Comprehensive Audit Program (CAP) longer offered audits for the Commercial sector after 12/31/2020. Commercial customer(s) that seek an audit can do so by participating in the new Small or Large Commercial third-party programs that were launched on 1/1/2021. CAP will continue to service Public sector customer(s) until a new program is launched for this sector after the solicitation process is complete.

2020 Program Accomplishments

In 2020, SDG&E reviewed approximately 53 commercial audits. Although SDG&E performed fewer audits in 2020 as compared to the last two years, the quality of the audits provided to our customers has improved. Audit feedback was given through the implementation of a formal corrective and preventive action process for incoming audit reports. The largest group of customers came from the military, university, schools, large office buildings, assembly, community colleges, lodging, small office, and restaurants.

B. SDGE3220 SW-COM-Calculated Incentives-Calculated

Program Description

The Calculated Incentives program provides customized incentives for non-residential energy efficiency retrofit projects involving the installation of high efficiency equipment or systems. Incentives are paid based on the energy savings and permanent peak demand reduction above and beyond baseline energy performance, which includes state and Federally mandated codes, industry-accepted performance standards or other baseline energy performance standards.

Implemented Strategies

In 2020, SDG&E developed the SDG&E *Free Rider & Influence* form which helped ensure all projects were ready for review by the CPUC's Custom Process Review (CPR) team. The form captured SDG&E's influence on a project, including discussions with the customer, equipment suggestions, start date and technical assistance. SDG&E worked closely with the CPR team to gain approval of the form and it was launched in June 2020.

SDG&E continued to offer training sessions for customers and trade professionals to reinforce and improve the knowledge of program participants on the various details and requirements of the program. In early 2020, the training was moved to a virtual format which allowed external parties to participate in the

training at a time that was convenient for them.

Challenges/Changes for 2021

SDG&E will continue to track Commercial sector projects from installation to Measurement & Verification (M&V) and payment for customers who were contracted prior to 12/31/2020. Public Sector customers will continue to be targeted through this program until a new third party program is launched for this sector after the solicitation process has completed.

2020 Program Accomplishments

SDG&E continued to work closely with the CPR team to ensure projects that were placed on the Custom Measure & Project Archive (CMPA) were complete and ready for review. SDG&E submitted multiple early opinions for potential projects as well as meeting outside of recurring check-ins with customers to address project processes and expectations.

C. SDGE3222 SW-COM-Calculated Incentives – Savings By Design

Program Description

The Savings by Design (SBD) program serves SDG&E's new construction segment. It promotes integrated building design by providing design assistance with energy efficient alternatives and owner incentives to participants who design spaces that perform at least 10% better than Title 24.

Implemented Strategies

To continue its visibility in the service territory, SDG&E extended its contract with American Institute of Architects (AIA) San Diego chapter to promote efficiency training, site tours, efficiency recognition and website tools for its 800+ members. The collaboration was halted in early 2020 due to COVID-19 challenges of in-person tours.

The statewide SBD team continued to collaborate to help transition the program to be administered as a statewide new construction program. Because the new statewide New Construction program is not slated to begin until Q3 2021, SDG&E's current focus has been on providing close out dates for application submittals and contract agreements.

Challenges/Changes for 2021

Program participation continued to decline in 2020 due to Title 24 code updates as well as knowledge and anticipation that the statewide New Construction program may offer different eligibility requirements once launched. COVID-19 caused additional delays in project timelines; and made regular communication with customers difficult. As a result, some project contacts were unresponsive regarding status and others proved to have challenges with contracting.

SDG&E continues to collaborate with the statewide team to support the launch of the new statewide New Construction program in Q3 2021. SDG&E will not be accepting new SBD applications in 2021 but will continue to work with existing customers through installation and payment.

2020 Program Accomplishments

SDG&E continued to qualify projects through the Systems approach when projects were not eligible for participation through the Whole Building approach while assisting customers and design teams with their calculations. Standard communications were updated to help streamline project processes and ensure the customers and design teams were notified of project status.

SDG&E worked with the statewide SBD team and CPUC on various initiatives to assist with current and future new construction programs, including: a) drafting project review requirements with the CPUC to ensure all projects are evaluated under consistent guidelines across the IOUs while also meeting CPUC's expectations, b) creating the Effective Useful Life (EUL) calculator to easily estimate a weighted project EUL value and be able to compare to the simple payback period, and c) determining if a single EUL value could be used across all SBD projects. Additionally, SDG&E revised its internal review workbook to ensure compliance with the new review items and procedures.

D. SDGE3223 SW-COM-Deemed Incentives – Commercial Rebates

Program Description

The Statewide Commercial Deemed Incentives Subprogram provides rebates for the installation of new energy efficient equipment. Deemed retrofit measures have prescriptive energy savings and incentive dollars and are intended for projects that have well-defined energy and demand savings estimates.

Implemented Strategies

In 2020, the Commercial Rebates Program continued with two separate program deliveries: for lighting products, the Instant Lighting Rebates Program, and for non-lighting products, Energy Efficiency Business Rebates Program. The Instant Lighting Rebates Program utilizes a midstream delivery channel and works directly through distributors to buy down the cost of lighting products. The incentive is passed through to the customer in the form of a discount. This year, SDG&E increased rebates for popular lighting measures to motivate customers to participate. All other non-lighting products continued to be offered in Energy Efficiency Business Rebates Program, which utilized a downstream channel. To increase participation within the Energy Efficiency Business Rebates Program, SDG&E provided an incentive to trade professionals that installed certain measures such as industrial pipe insulation, process boilers, and large storage water heaters. The incentive to trade professionals was implemented to create opportunities for trade professionals to receive an incentive for projects they work with customers on to implement.

Additionally, SDG&E increased rebates on non-lighting measures as a limited time offer. The limited time offer marketing strategy was implemented to create a sense of urgency so that customers would take full advantage of the increased rebate amounts.

Monthly training for trade professionals also continued in 2020 and moved to a virtual self-paced training thus allowing them to continue in 2020 during the COVID-19 pandemic. These trainings provide a high-level overview of the programs and give trade professionals the opportunity to work directly with program advisors. The virtual self-paced trainings have been well received.

Challenges/Changes 2021

A challenge for this program in 2020, was the global pandemic. Throughout the year, the program saw a drastic reduction in participation in non-lighting measures. Additionally, for a period, the program also saw a reduction in participation in lighting measures. In 2021, the Instant Lighting Rebates program will be closing at the end of the second quarter. The new statewide lighting program, described in further detail beginning on page 109 of this report, is due to launch at the beginning of the third quarter. Additionally, commercial non-public customers will no longer be served through the Energy Efficiency Business Rebates Program but through SDG&E's new third party Large Commercial Program. Public Sector customers will continue to be targeted through this program until a new program is launched after the solicitation process has completed.

2020 Program Accomplishments

SDG&E added the following measures to the Energy Efficiency Business Rebates Program: hand wrap machines, medium temperature vertical refrigeration cases, and a variety of heating, ventilation, and air conditioning measures such as fan controls, occupancy sensors, and variable speed drives. The addition of these measures created a more diverse offering for SDG&E's commercial customers.

STATEWIDE INDUSTRIAL ENERGY EFFICIENCY PROGRAMS

A. SDGE3227 SW-IND-Strategic Energy Management

Program Description

The Statewide Industrial Strategic Energy Management (SEM) Program utilizes measurement and verification guidelines developed jointly with the other California IOUs and the CPUC. The SEM Program employs a holistic, whole-facility approach that uses Normalized Metered Energy Consumption (NMEC) method and a dynamic baseline model to determine savings from all program activities at a facility, including capital projects, behavioral, and maintenance & operations.

Implemented Strategies

SDG&E and its contracted implementer worked closely in 2020 to complete the second year of the SEM program and continue into the third year with all seven participating sites enrolled. Activities included workshops, year 2 completion reports, and savings claims, and submittal of three custom projects to the CMPA. The most prominent activities for participants in 2020 were the completion of their energy projects.

Key Activities held in 2020 include:

- April: Energy Management System Assessment #2
- June: Workshop 8, Celebrating Accomplishments
- August: Cycle 2 Design Development & Planning
- October: Cycle 2 Workshop 1a, Cycle 2 Overview & Strategies
- December: Completion of Cycle 2 Energy Savings Opportunity “Treasure Hunts”
 - Participants completed a variety of employee engagement activities, including compressed air leak campaigns, idea submission campaigns, and up-to-the-moment display of energy savings by project

The energy management software used in the program includes persistence strategy information. All participants identified a persistence strategy for every completed project in 2020. The cohort is using an additional persistence tracking tool, which lays out a calendar for required checks on persistence.

Five of the seven participants completed milestone 4 by January 15, 2020, and all participants completed milestone 5 by July 15, 2020, and received \$1,000 of incentives for each that were completed. Both milestones required updated production and energy data, updated opportunity registers, notes and persistence strategies on every completed project. Furthermore, all seven participants received their \$1,000 performance incentives for completion of their First Top 5 and/or their Subsequent Top 5 Operations & Maintenance Projects #s 2, 3, and 4.

The contracted implementer is using cloud-based SEM software for all participant-facing documents and information related to the SEM program. Participants track their energy models in cumulative-sums and other graphs through this software. Their opportunity register is also housed in the software, as are shared program documents. Their opportunity registers are tied to the graphs so that certain activities recorded in the register appear on the graphs, linking participants' actions to savings.

Challenges/Changes for 2021

At the end of July 2020, the program closed its first two-year cycle (Cycle 1) and stepped into another two-year cycle (Cycle 2). With the initiation of Cycle 2, revised Industrial Strategic Energy Management Design and Measurement & Verification Guides were developed for use at the Statewide level. These revised guidelines brought to the program new sets of challenges/changes that the program already began addressing as of September 2020 and will continue to address in 2021. Some of the newer areas of focus will be educating participants on the International Organization of Standardization (ISO) 50001 requirements and practices, implementing Integrated Demand Side Management strategies that bring additional energy savings, and in-turn developing a functional energy management system at each site.

Some strategies that are planned to achieve additional savings include a step to leverage involvement from a broader base of the participant's employees, to bring critical operations/production personnel on board, and greater involvement from cohort members' executive sponsors. SDG&E is also pursuing agreements with each of the seven participants.

2020 Program Accomplishments

During the second year of Cycle 1, the participants completed numerous large and complex BRO (Behavioral, Retrofit and Operational) projects. These efforts resulted in the program's Cycle 1 savings being above projected targets. Participants from all seven sites finished the second year of Cycle 1 with many successes, were excited about all aspects of the SEM program structure and all seven decided to continue their participation with the program into the following two-year cycle (Cycle 2). Additionally, two of the seven participants decided to add additional sites to the program as the successes from the prior years solidified their appreciation for the energy savings benefits the program delivered to their organizations. Collectively, the seven participants completed approximately 194 energy projects with approximately 161 additional projects in progress.

During the second half of 2020, SDG&E led collaborations with the other IOUs, CPUC staff and their consultants and submitted a request for a new Expected Useful Life (EUL) ID on behalf of all IOUs. The CPUC's system support tables now include a customized industrial SEM EUL ID of "NonRes-WhlBldg-SEM" with a retroactive start date of 1/1/2020. This effort resulted in a greater cost effectiveness calculation for not only SDG&E, but for all the Industrial SEM programs across the state.

B. SDGE 3229 SW-IND-Customer Services – Audits Non-Res

Program Description

The Comprehensive Audit Program is an Integrated Demand-Side Management (IDSM) audit offered to commercial customers. The program provides customers with a comprehensive audit report that is equivalent to an American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Level 1 or 2 report. SDG&E offers two types of audits: 1) ASHRAE Level 1 audit, which consists of a high-level walkthrough that provides an equipment inventory and high-level payback estimates of the identified energy efficient measures; and 2) ASHRAE Level 2, which is a more detailed analysis of selected measures with investment-grade savings and financial calculations and deliverables. The Level 2 audit is geared toward businesses that plan to implement recommended measures within one year of the audit being completed. As an IDSM program, audit scope and reports for both Level 1 and Level 2 audits include energy efficiency, demand response and distributed generation opportunities. These audits are performed by vetted engineering firms and the audit report delivers valuable insights about how and where energy is being consumed. The program is designed to provide businesses a roadmap on various actions they can take to reduce their overall energy consumption and effectively reduce operating costs.

Implemented Strategies

The Comprehensive Audit Program for the Industrial Segment had an increase in program participation in 2020. The projects serviced in 2020 were larger in scope and the majority were Level 2 audits. Audits were performed for various business types including manufacturing facilities, water treatment plants, military facilities, and research and development facilities. The Level 2 audits resulted in the customer receiving a report that includes a complete inventory of their energy consuming equipment. SDG&E also performed Level 2 audits for customers that had previously completed a Level 1 audit. The Level 2 audit was performed based on specific measures from the Level 1 report, allowing for a comprehensive evaluation. In 2020, SDG&E completed approximately 15 audits in this Sector.

Challenges/Changes for 2021

Historically there have been more audit requests than available funding. SDG&E ensures that the program has a comprehensive mix of customer types and customers who have previously requested an audit and those who have never received one are prioritized.

In response to the COVID-19 pandemic on March 20, 2020, program activities requiring face-to-face interaction were suspended. SDG&E transitioned to remote or virtual audits to the extent possible, to continue assisting customers.

2020 Program Accomplishments:

In 2020, the quality of our delivered audits increased with additional feedback being provided through a new program corrective action plan for the engineering firms servicing SDG&E customers.

C. SDGE3231 SW-IND-Calculated Incentives-Calculated

Program Description

The Calculated Incentives program provides customized incentives for non-residential energy efficiency retrofit projects involving the installation of high efficiency equipment or systems. Incentives are paid based on the energy savings and permanent peak demand reduction above and beyond baseline energy performance, which include state and federal-mandated codes, industry-accepted performance standards or other baseline energy performance standards.

Implemented Strategies

In 2020, SDG&E created the SDG&E *Free Rider & Influence* form which helped ensure all projects were ready for the CPUC's Custom Process Review (CPR) team. The form captured SDG&E's influence on a project; including discussions with the customer, equipment suggestions, start date and technical assistance. SDG&E worked closely with the CPR team to gain approval of the form which launched in June 2020.

SDG&E continued to offer training sessions for customers and trade professionals to reinforce and improve the knowledge of program participants on the various details and requirements of the program. In early 2020, the training was moved to a virtual format which allowed external parties to participate in the training at a time that was convenient for them.

SDG&E also developed a targeted marketing campaign that highlighted popular energy-saving equipment for Industrial customers. The marketing pieces were emailed to Industrial customers and mentioned the potential to offset their energy bills through On-Bill Financing.

Challenges/Changes for 2021

SDG&E will continue to market the program emphasizing process and program improvements and will engage with new and existing qualifying Industrial customers to apply for the program until the Industrial sector goes out to bid through the solicitation process.

2020 Program Accomplishments

SDG&E continued to work closely with the CPR team to ensure projects that were placed on the Custom Measure & Project Archive (CMPA) were complete and ready for review. SDG&E submitted multiple early opinions for potential projects as well as meeting outside of recurring check-ins with customers to address project processes and expectations. Customers expressed their appreciation for being

able to work closely with SDG&E and the Commission.

D. SDGE3233 SW-IND-Deemed Incentives

Program Description

The Statewide Industrial Deemed Incentives Subprogram provides rebates for the installation of new energy efficient equipment. Deemed retrofit measures have prescriptive energy savings and incentive dollars and are intended for projects that have well- defined energy and demand savings estimates.

Implemented Strategies

In 2020, the Commercial Rebates Program continued with two separate program deliveries: for lighting products, the Instant Lighting Rebates Program, and for non-lighting products, Energy Efficiency Business Rebates Program. The Instant Lighting Rebates Program utilizes a midstream delivery channel and works directly through distributors to buy down the cost of lighting products. The incentive is passed through to the customer in the form of a discount. This year, SDG&E increased rebates for popular lighting measures to allow for more attractive options for customers to participate. All other non-lighting products continued to be offered in Energy Efficiency Business Rebates Program, which utilized a downstream channel. To increase participation within the Energy Efficiency Business Rebates Program, SDG&E provided an incentive to trade professionals that installed certain measures such as industrial pipe insulation, process boilers, and large storage water heaters. The incentive to trade professionals was implemented to create opportunities for trade professionals to receive an incentive for projects they work with customers on to implement. Additionally, SDG&E increased rebates on non-lighting measures as a limited-time offer. The limited-time offer marketing strategy was implemented to create a sense of urgency so that customers would take full advantage of the increased rebate amounts.

Monthly training for trade professionals also continued in 2020 and moved to virtual self-paced trainings thus allowing them to continue in 2020 during the COVID-19 pandemic. These trainings provide a high-level overview of the programs and give trade professionals the opportunity to work directly with program advisors. The virtual self-paced trainings have been well received.

Challenges/Changes 2021

A challenge for this program, this year, was the COVID-19 pandemic. Throughout the year, the program saw a drastic reduction in participation in non-lighting measures. Additionally, for a period, the program also saw a reduction in participation in lighting measures. In 2021, the Instant Lighting Rebates program will be closing at the end of the second quarter. The new statewide lighting program is due to launch at the beginning of the third quarter.

2020 Program Accomplishments

In the Energy Efficiency Business Rebates Program, SDG&E added the following measures: hand wrap machines, medium temperature vertical refrigeration cases, a variety of heating, ventilation, and air conditioning measures such as fan controls, occupancy sensors, and variable speed drives. The addition of these measures created a more diverse offering for SDG&E's customers.

STATEWIDE AGRICULTURAL ENERGY EFFICIENCY PROGRAMS

A. SDGE3236 SW-AG-Customer Services – Audits Non-Res

Program Description

The Comprehensive Audit Program is an Integrated Demand-Side Management (IDSM) audit offered to commercial customers. The program produces and provides customers with a comprehensive audit report that is equivalent to an American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Level 1 or 2 report. SDG&E offers two types of audits: 1) ASHRAE Level 1 audit, which consists of a high-level walkthrough that provides an equipment inventory and high-level payback estimates of the identified energy efficient measures; and 2) ASHRAE Level 2, which is a more detailed analysis of selected measures with investment-grade savings and financial calculations and deliverables. The Level 2 audit is geared toward businesses that plan to implement recommended measures within one year of the audit being completed. As an IDSM program, audit scope and reports for both Level 1 and Level 2 audits include energy efficiency, demand response and distributed generation opportunities. These audits are performed by vetted engineering firms and the audit report delivers valuable insights about how and where energy is being consumed. The program is designed to provide businesses with a roadmap on various actions they can take to reduce their overall energy consumption and effectively reduce operating costs.

Implemented Strategies

The Comprehensive Audit Program agricultural segment received some up-take in customer program applications in 2020. Participation in the program continues to be low as SDG&E has a small, hard to reach, agricultural segment in its service territory. The program continues to work closely with SDG&E's account executives to identify potential customers that would be good candidates for the Comprehensive Audit Program.

Challenges/Changes for 2021

SDG&E's Agricultural Sector makes up approximately 1.4% of the portfolio. The sector is mostly comprised of small farms who are focused on many business challenges that are unique to the smaller agriculture customer, among which is having to cope with the State's continuing water shortage. Since COVID-19 poses additional challenges for this small sector and the small farms, SDG&E will continue to work with stakeholders to develop more effective programs for these customers.

In response to the COVID-19 pandemic and in the interest of SDG&E employee, customer and contractor health and safety, on March 20, 2020, program activities requiring face-to-face interaction were suspended. SDG&E transitioned to remote or virtual audits to the extent possible, to continue assisting customers.

2020 Program Accomplishments

The agricultural sector continues to be a challenge for SDG&E due to the limited customers in this segment. Historically this program has had low participation and has continued to diminish over the years. In 2020, there were approximately five agricultural customers that requested audits.

B. SDGE3237 SW-AG-Calculated Incentives-Calculated

Program Description

The Calculated Incentives Subprogram provides customized incentives for non-residential energy efficiency retrofit projects involving the installation of high efficiency equipment or systems. Incentives are paid based on the energy savings and permanent peak demand reduction beyond baseline energy performance, which includes state and federally mandated codes, and industry-accepted performance standards or other baseline energy performance standards.

Implemented Strategies

In 2020, SDG&E created the SDG&E Freerider & Influence form which helped ensure all projects were ready for the CPUC's Custom Process Review (CPR) team. The form captured SDG&E's influence on a project; including discussions with the customer, equipment suggestions, start date and technical assistance. SDG&E worked closely with the CPR team, gained CPUC approval of the form and launched the form in June 2020.

SDG&E continued to offer training sessions for customers and trade professionals to reinforce and improve the knowledge of program participants on the various details and requirements of the program. In early 2020, the training was moved to a virtual format which allowed external parties to participate in the training at a time that was convenient for them.

Challenges/Changes for 2021

SDG&E will continue to market the program emphasizing process and program improvements and will engage with new and existing qualifying Agricultural customers to apply for the program until the Agricultural sector goes out to bid through the solicitation process.

2020 Program Accomplishments

No new applications were received for this program; however, SDG&E continued to shepherd existing Agricultural projects. Additionally, SDG&E developed a targeted marketing campaign that highlighted popular energy-saving equipment for Agricultural customers. The marketing pieces were emailed to Agricultural customers and mentioned the potential to offset their energy bills through On-Bill Financing.

C. SDGE3239 SW-AG-Deemed Incentives

Program Description

The Statewide Agricultural Deemed Incentives Subprogram provides rebates for the installation of new energy efficiency equipment. Deemed retrofit measures have prescribed energy savings and incentive amounts and are generally intended for projects that have well-defined energy and demand savings estimates.

Implemented Strategies

In 2020, the Agricultural Rebates Program continued with two separate program deliveries: for lighting products, the Instant Lighting Rebates Program, and for non-lighting products, Energy Efficiency Business Rebates Program. The Instant Lighting Rebates Program utilizes a midstream delivery channel and works directly through distributors to buy down the cost of lighting products. The incentive is passed through to the customer in the form of a discount. This year, SDG&E increased rebates for popular lighting measures to allow for more attractive options for customers to participate. All other non-lighting products continued to be offered in Energy Efficiency Business Rebates Program, which utilized a downstream channel. In order to increase participation within the Energy Efficiency Business Rebates Program, SDG&E provided an incentive to trade professionals that installed certain measures such as industrial pipe insulation, process boilers, and large storage water heaters. The incentive to trade professionals was implemented to create opportunities for trade professionals to receive an incentive for projects they work with customers on to implement. Additionally, SDG&E increased rebates on non-lighting measures as a limited time offer. The limited time offer marketing strategy was implemented to create a sense of urgency so that customers would take full advantage of the increased rebate amounts.

Monthly training for trade professionals also continued in 2020 and moved to a virtual self-paced training thus allowing them to continue in 2020 during the COVID-19 pandemic. These trainings provide a high-level overview of the programs and give trade professionals the opportunity to work directly with program advisors. The virtual self-paced trainings have been well received.

Challenges/Changes for 2021

A challenge for this program, this year, was the COVID-19 pandemic. Throughout the year, the program saw a drastic reduction in participation in non-lighting measures. Additionally, for a period, the program also saw a reduction in participation in lighting measures. In 2021, the Instant Lighting Rebates program will be closing at the end of the second quarter. The new statewide lighting program is due to launch at the beginning of the third quarter.

2020 Program Accomplishments

. In the Energy Efficiency Business Rebates Program, SDG&E added the following measures: hand wrap machines, medium temperature vertical refrigeration cases, variety of heating, ventilation, and air conditioning measures such as fan controls, occupancy sensors, and variable speed drives. The addition of these measures created a more diverse offering for SDG&E's customers.

LOCAL INSTITUTIONAL PARTNERSHIPS

A. SDGE3266 LInstP-CA Department of Corrections Partnership

Program Description

The California Department of Corrections and Rehabilitation (CDCR) partnership is a customized statewide energy efficiency partnership program that accomplishes immediate, long-term energy and peak demand savings and establishes a permanent framework for sustainable, long-term comprehensive energy management programs at CDCR institutions served by California's four IOUs. The information and data for the following implemented strategies and program accomplishments were provided by the Partner in order to review the program's performance in 2020.

Implemented Strategies

In 2020 CDCR continued implementing retrofit projects and performing Investment Grade Audits. The IOUs and the Program Administration Manager (PAM) worked with the Department of Corrections to support development of new projects, ensuring that they reached maximum efficiency and incentive potential. To support more project development, the IOUs prioritized projects using energy audits that had been done on a subset of CDCR's facilities, resulting in the next wave of projects. CDCR continued to use over half of the total energy consumed by state agencies under the Governor's executive authority. Though CDCR's budget for implementing energy efficiency projects is minimal, through the CDCR-IOU energy efficiency partnership program efficiency projects can be identified and implemented using the IOU core and On Bill Financing Programs. On Bill Financing and Golden State Financial Market Place (GS Smart) have been the primary source of funding. In select instances, On Bill Financing is supplemented by the state's Special Repairs Project funding.

Challenges/Changes for 2021

The COVID-19 pandemic resulted in several implementation challenges including limited access to facilities, project slowdowns, and agency budget shortages. While these challenges will continue into 2021, the Partnership continues to look for creative ways to encourage and support participation. Scalable program changes will bridge the gap in 2021 until the rollout of the new statewide third party program administered by PG&E in 2021.

2020 Program Accomplishments

The Partnership continued the effort to ensure new construction projects, natural gas-saving, and water conservation projects were clearly tracked and proactively managed. The Partnership also provided special training to the current Energy Service Company (ESCO) pool that included program rules, policies and procedures required to successfully implement a project through the Program. Executive Team

meetings occur quarterly and involve senior leadership at the CA Department of Corrections, sustainability managers from sites across the state, and IOU management to identify new opportunities, manage project pipelines, and proactively address any challenges the program may have faced.

CDCR's ESCO pool rebid occurred in the second quarter of 2020. Anticipating and planning for ESCO pool rebids plays a critical role in maintaining project momentum and successful project completion. The Partnership hosted several trainings to onboard the new ESCO pool ensuring they are sufficiently acquainted with all program processes and procedures and setting them up to deliver successful and cost-effective projects.

The Partnership provided ongoing outreach and education to institutions, ESCOs and stakeholders and continues to improve program processes and procedures. CDCR has only one facility in SDG&E's service territory, the Richard J. Donovan Correctional Facility (RJD) and there were no energy savings projects at that facility in 2020. Based on the master schedule and prioritization of energy efficiency audits, additional RJD projects remain as opportunities in the pipeline for 2021.

B. SDGE3267 LInstP-California Community College Partnership

Program Description

The California Community Colleges (CCC) Partnership is a unique, statewide program with a goal to achieve immediate and long-term energy savings and peak demand reduction within California's higher education system. The program was established in previous program cycles for sustainable, comprehensive energy management at campuses served by California's four IOUs.

The Partnership has a hierarchical management structure to ensure successful implementation that includes an Executive Team and Management Team comprised of senior leadership at the CCC Chancellor's office, sustainability managers from CCC districts, and IOU management on an ongoing basis.

The teams met quarterly to discuss program management, overall program status and policy issues. The CCC Partnership also focuses heavily on outreach efforts in several areas, including: (1) development of a comprehensive list of technologies, project types, and offerings to be used by team members during campus visits to help generate project ideas; (2) evaluation of new project technologies for suitability in the CA Community College market; and (3) planning and participation in CCC conferences and regional Campus Forums. The information and data for the following implemented strategies and program accomplishments were provided by the Partner in order to review the program's performance in 2020.

Implemented Strategies

The Partnership participated in virtual quarterly Campus Forums in both Northern and Southern California, serving as a venue for districts to share successes and strategies to address the shared challenges

faced for facilities management and energy efficiency. The Partnership team presented at these Forums, providing time-sensitive updates on modern technologies, information on program implementation, and direct assistance to districts in attendance.

The Management Team participated in several virtual CCC conferences such as the California Higher Education Sustainability Conference (CHESC), Community College Facilities Coalition conference (CCFC), and the Association of College Business Officers (ACBO) conference to reach a diverse audience of facilities, business officers, administration, and board members. In addition, the team participated in northern and southern California regional virtual energy meetings organized by the Community Colleges (NorCal Summit, Southern California Facilities Officers) targeted towards campus facilities and energy managers. Finally, outreach team members conducted virtual campus meetings with Facilities and O&M staff to review project opportunities and manage project development efforts both on site at the colleges and while participating in the virtual ACBO Facilities Task Force quarterly meetings.

In addition to the virtual quarterly Management Team meetings to discuss overall program status, initiatives and policy issues, the team actively provided updates specific and respective to their own IOU territory comparing actual savings to goals. These reports were reviewed by both Management Team members and IOU management on an ongoing basis.

Challenges/Changes for 2021

The COVID-19 pandemic created challenges in 2020 for all parties involved in the Partnership. The Partners adapted to virtual operations, and project delays, while in-person operations were suspended. In addition, Proposition 39 funding has ended, which is creating a significant slowdown statewide for the identification of new energy efficiency projects. In 2021, all efforts for CCC districts are focused on the complete utilization of any available funding.

2020 Program Accomplishments

The Partnership provided extensive outreach and technical support through virtual formats (Zoom, Go To Meetings and Microsoft Teams) to the districts within the CCC system in support of their efforts to identify, develop, and implement projects funded through remaining funds left in Proposition 39, the California Clean Energy Jobs Act of 2012. The IOUs worked closely with the Chancellor's Office to develop resources and infrastructure into the CCC and successfully implement hundreds of Proposition 39 projects across the State. These projects were implemented using the final year of funding provided by the state Legislature. Typical project types implemented were LED lighting, HVAC, controls, and Retro-commissioning (RCx).

The use of Proposition 39 funding continued to be highly successful with over 932 energy projects funded over its five-year life. These projects will result in significant annual energy savings, saving the

CCC \$19.9 million per year in reduced energy costs system-wide. All 72 community college districts throughout California actively participated in the program and have benefited, including all five districts in the SDG&E territory.

Over \$184 million in Proposition 39 funding was allocated to districts over the 5-year program life and all projects were completed and closed-out in 2019. However, there was roughly \$6 million in “project savings” due to cost underruns at 21 districts as the final projects were closed-out. The CCC Chancellor’s Office extended the program deadline in order to spend the largest share of the remaining \$6 million.

In SDG&E’s service territory, there were five campuses participating in the Savings By Design New Construction program that are currently underway. In addition to the new construction projects, the San Diego City Community College District implemented a project through the Energy Efficiency Business Rebates for lighting upgrades. The potential energy savings for these projects are approximately 195,819 kWh, 56 kW, and 172,628 therms.

C. SDGE3268 LInstP-UC/CSU/IOU Partnership

Program Description

The UC/CSU/Utility Energy Efficiency Partnership is a unique, statewide program which includes California’s four investor-owned utilities, Pacific Gas and Electric (PG&E), Southern California Edison (SCE), Southern California Gas Company (SCG), and San Diego Gas and Electric (SDG&E), as well as the Los Angeles Department of Water and Power (LADWP), in partnership with the University of California (UC) and the California State University (CSU).

The Partnership generates energy savings through the identification and implementation of energy efficiency projects and consists of three main project types: retrofit, commissioning, and new construction. Since its establishment in 2004, the Partnership has provided approximately 67 MW demand reduction and delivered approximately 500 million kWh/yr and 26 million therms/yr in energy savings. The information and data in the program description, implemented strategies and program accomplishments were provided by the Partner in order to review the program’s performance in 2020.

Implemented Strategies

The Partnership has a hierarchical management structure to ensure successful implementation. The Management Team meets monthly to conduct business at the operational level and the Executive Team meets on an as-needed basis to discuss overall program status and policy issues. In addition to representatives from each Utility, the University of California Office of the President and California State University Chancellor’s Office each have members on both program management teams. Inclusion of all Partnership stakeholders at the various management levels provides the UC and CSU campuses with

support in their efforts to implement energy efficiency projects. A Program Administrative Manager (PAM), selected by the Partnership, organizes and facilitates team activities, works with individual stakeholders, actively tracks project savings and schedule data in a web-based tracking tool and creates regular reports to show overall status of the program and forecasts relative to goals.

In 2020, the Partnership focused widely on efforts surrounding normalized metered energy consumption (NMEC) in compliance with AB802. In addition to NMEC projects, UC and CSU focused on addressing barriers to energy efficiency, developing new contracting mechanisms, looking into opportunities for financing projects via OBF, and continuing work on a CEC Grant to develop a Master Enabling Agreement for energy efficiency at UC and CSU campuses.

Challenges/Changes for 2021

The COVID-19 pandemic created challenges in 2020 for all parties involved in the Partnership. The partners adapted to virtual operations, and project delays, while in-person operations were suspended. The pandemic created additional strain on campus budgets preventing the development and implementation of new and ongoing projects. Additionally, utilities and campuses faced engineering challenges to address the pandemic as a non-routine event. For 2021, the Partnership will prepare to transition to the third-party implementer model. SCE, the statewide program administrator, began solicitations for the Statewide Higher Education programs and will continue in 2021.

2020 Program Accomplishments

There was a significant volume of energy efficiency projects delivered in 2020 and underway for future years across the statewide Partnership resulting in completion of 48 Retrofit, MBCx (monitoring-based commissioning) and New Construction projects at 17 different UC and CSU campuses (inclusive of UC Medical Centers). With the assistance and input from of the University of California, the IOUs also continued implementation and development of various program offerings and High Opportunity Project or Programs (HOPPs), including a whole building program consistent with SB350, AB802 and AB1150 to demonstrate measured savings against existing conditions, pay for performance, and comprehensive whole-building approach to building efficiency.

As the transition to the new third party programs has taken longer than anticipated, the Partnership team decided to look at ways the current Partnership could be reinvigorated and incorporate current priorities to enhance its value over the next two years. The following five priority areas were identified as offering the most value to UC and CSU: Carbon Reduction, Meter-Based Savings Methodologies, Financing, Resiliency, and Human Resources. Throughout 2020, the team continued to discuss potential opportunities, as well as monitor progress of ongoing initiatives, in these priority areas. In addition, the Program Administrator Manager completed the implementation of the project tracking database for the

Partnership replacing the existing database. The public-facing Dashboard was also re-organized to be more user friendly.

Overall, the UC/CSU/Utility Partnership made progress towards the 2020 program cycle goals, totaling over 1,167 kW (~87% of goal), 8.3 million kWh (~67% of goal), approximately 552,000 therms (~65% of goal), and providing over \$2.9 million in incentives (~101% of goal).

Additionally, the integration of LADWP into the Partnership and the resulting collaboration between Investor Owned and Public Owned Utilities provides a working model for the Public Sector in California to deliver truly comprehensive energy efficiency programs.

D. SDGE3269 LInstP-State of California/IOU Partnership

Program Description

The State of California Partnership is a statewide program designed to achieve immediate and long-term energy and peak demand savings and establish a permanent framework for sustainable, comprehensive energy management programs at state facilities served by the IOUs. This is accomplished by collaborating with the Department of General Services (DGS), coordinating with the DGS established pool of energy service companies (ESCOs) to help implementation of comprehensive facility energy efficiency projects and working with individual state agencies on technology-specific projects. The DGS leverages Department of Finance Energy Smart program, along with the IOUs' OBF, incentives and rebates to provide financing for project opportunities. The information and data for the following implemented strategies and program accomplishments were provided by DGS in order to review the program's performance in 2020.

Implemented Strategies

The IOUs continued to work with the State to prioritize agencies that may benefit from ESCO work, both for large and pooled small buildings. The Partnership has provided extensive outreach and technical support to Agencies including California Highway Patrol (CHP), Department of Motor Vehicles (DMV), Department of Parks and Recreation (DPR), the Judicial Council of California (JCC), and the Department of Food and Agriculture (DFA).

In response to the Public Safety Power Shutoffs, the Partnership coordinated on how to build resiliency for sites in the most critical zones. Outreach to these agencies through the Sustainable Buildings Working Group (SBWG) meeting and through other avenues continued to yield significant energy savings and continues to create a robust pipeline of future projects.

Challenges/Changes for 2021

The COVID-19 Pandemic resulted in several implementation challenges including limited access to facilities and project slowdowns. While these challenges will continue into 2021, the Partnership continues

to look for creative ways to encourage and support participation. Scalable program changes will bridge the gap in 2021 until the implementation of the new statewide third party program administered by PG&E in 2021.

2020 Program Accomplishments

In 2020, the IOUs and DGS leveraged findings from a working group organized in 2019 to address Savings by Design (SBD) participation barriers for DGS buildings. Working group efforts led to the development of several process documents to help better understand the DGS procurement process. The Partnership continues to track an SBD project currently in progress to use as a test case for implementing solutions developed by the working group.

The IOUs continued attending the Sustainable Building Working Group meetings, a State of California working group that consists of agency sustainability managers, with the task of planning and implementing all aspects of B-18-12, the Governor's Executive Order, which addresses GHG emissions from state-owned buildings, among other things. The IOUs attend in a supporting role to ensure that agency needs regarding energy data for benchmarking are met. The IOUs continue to use the working group for agency outreach.

Through training and outreach activities, the State/IOU Partnership increased awareness and understanding of statewide program offerings to additional State agencies. DGS completed projects in SDG&E's territory in 2020 that included a project at a DGS owned facility. Based on continued agency outreach, the State/IOU Partnership anticipates additional opportunities for DGS projects in 2021.

E. SDGE3270 LInstP-University of San Diego (USD) Partnership

Program Description

The USD Partnership program is designed to create a more sustainable campus through the adoption and implementation of a robust Climate Action Plan (CAP) anchored in energy efficiency to reduce Green House Gas (GHG) emissions. USD will continue to create policies and procedures that encourage and facilitate long-term energy savings for the university through implementation of its Sustainability Strategic Plan and CAP. Through outreach to students, staff, and alumni with an emphasis on behavior modification, the program is intended to educate campus audiences in identifying and adopting energy saving practices not only on campus, but also in their careers, communities and homes. The information and data for the following implemented strategies and program accomplishments were provided by USD in order to review the program's performance in 2020.

Implemented Strategies

USD's Office of Sustainability continued to advance its efforts in staff and student education in

2020. In February, the Office launched a new USD Green Event Certification Program, intended to guide and inspire more sustainable events hosted by USD departments and organizations as a way of helping the university to lower its ecological footprint. If the event meets specific requirements regarding marketing, food, serving, waste, energy, transportation, decor, giveaways, and social justice, the department is recognized with an appropriate rating of bronze, silver, gold, or platinum. The Office was also involved with several academic classes, assisting students with sustainability related research, guest lecturing, or connecting them with subject matter experts off-campus. For example, through the Partnership, USD contracted with an outside firm to create a study of strategies to construct the new Business School building to Zero Net Energy standards.

The *Vampire Energy Slayers Program*, aimed at raising awareness of the “vampire energy” found in electronics and appliances used infrequently throughout the day, conducted training and outreach in February. In March, the program conducted audits of the University Center and Mail Center buildings and was preparing to audit seven more buildings. Due to the COVID-19 global pandemic, however, USD’s Office of Sustainability had to suspend all in-person events and physical outreach efforts. As a result, three in-person outreach efforts were held prior to the campus closure, reaching around 200 people. Instead, the Office shifted its focus to upgrading and reorganizing existing programs, investigating ways in which they could function remotely, and expanding their social media presence.

The *Green Office Program* was tailored to include home office strategies, but the roll-out proved to be difficult. As a result, the Office of Sustainability decided to shift from the revamped Green Office module to a general sustainability education approach, offering a “Sustain-a-Tips” video in its place. Moving forward, employees will be offered the opportunity to participate in the new Sustainability Learning Module.

The *Eco-Resident Program* was also revamped and moved online, with audits taking place via Zoom. Now in its third year, the program educates and encourages behavior changes in students living in the residence halls to reduce their energy and water consumption and incorporate other sustainable practices into their lifestyle. Ten new Eco-Residents were certified under the new approach, and the program’s success should allow USD to expand the effort in 2021.

Challenges/Changes for 2021

2020 marks the conclusion of the current five-year Local Institutional Partnership agreement with USD. Starting in 2021, USD will be eligible to participate in the new large commercial third-party program, which aims to provide customers with a single program that addresses all their energy efficiency needs.

USD plans to create an updated Climate Action Plan in 2021 and begin implementing projects that meet the needs of that plan, along with their Energy Master Plan. In fact, by mid-2021, the university hopes

to be able to finance projects from the cost savings accrued from recent energy efficiency projects. USD is also seeking to further reduce emissions beyond campus energy consumption, looking at the potential to install more electric vehicle charging stations through the Power Your Drive for Schools Program and the Power Your Drive for Fleets Program.

2020 Program Accomplishments

As part of the university's objective to develop an updated Climate Action Plan and meet their 2035 carbon neutrality goal, USD began work in January on a 15-year Energy Master Plan that will help the university optimize its campus's energy consumption through energy efficiency, energy conservation, and demand management. The plan was completed in December and contains actionable steps, scopes of work for program development, and timeframes for implementation, along with the associated costs.

As a result of the partnership, USD was also able to continue migrating campus buildings to its new building automation system, Design, by Siemens, and train up to eight employees on how to utilize the software. Approximately 16 buildings were upgraded to the new system in 2020, integrating multiple building systems into a seamless platform that will allow the university to operate its campus buildings more efficiently. In conjunction with the installation of the building automation system, a hardware upgrade project was completed as well, resulting in energy savings of approximately 940,202 kWh and an SDG&E incentive totaling more than \$140,000. USD also completed two *Savings by Design* (SBD) projects for the Copley Library renovation and the new Learning Commons Building. A third SBD project, the renovation of the Camino and Founders Halls, began in June 2020.

With the closure of much of the physical campus due to the COVID-19 pandemic, USD decreased its electricity consumption by approximately 4.3 million kWh and its natural gas consumption by over 131,000 therms by implementing revised temperature settings and shutting down non-essential equipment. To further support efforts for peak demand reduction, while meeting occupancy needs, USD continued to participate in the Automated Demand Response program via their Ecobee thermostats and responded to multiple Flex Alerts and Reduce-Your-Use events throughout the year.

USD's Office of Sustainability remains committed to addressing long-term energy efficiency as well, completing a greenhouse gas inventory and analysis in 2020 for Fiscal Year (FY) 2018 and FY 2019 with the USD Energy Policy Initiatives Center (EPIC). FY 2018 showed a drop in emissions of approximately 21% from the baseline, FY 2010.

Overall, these programs and practices have led to a decrease of approximately 19% in total energy consumption, approximately 11.7% decrease in water consumption, and public recognition of USD as a leader in campus sustainability. The university was ranked 18th in Princeton Review's annual Guide to Green Colleges 2020 and named to its Green Honor Roll.

F. SDGE3271 LInstP-San Diego County Water Authority Partnership

Program Description

The San Diego County Water Authority (SDCWA) Partnership aims to achieve greater levels of customer awareness of energy and water savings opportunities that eventually lead to increased participation in joint water energy efficiency programs offered by SDCWA and SDG&E. In addition, the Partnership implements initiatives designed to maximize embedded energy savings while also promoting the San Diego region's water conservation priorities.

SDG&E and SDCWA established a Memorandum of Understanding (MOU) in 2016 that extended the partnership through 2020. Key MOU items include:

- Collaborate and assist in the identification and implementation of joint projects and to allocate funding from each entity towards joint projects as appropriate
- Negotiate and execute projects with vendors to implement scopes of work
- Create co-branding opportunities between both entities
- Complete final reports by project with contractor support as necessary
- Hold monthly meetings with SDCWA to determine additional activities to support the partnership

Implemented Strategies

Over the years, numerous stakeholders have explored avenues to deliver joint energy and water programs. To address this gap, a consultant was hired to develop a Strategic Water Energy Partnership Framework. The framework provided a strategy for accelerating the adoption of cost-effective energy and water resource efficiency through joint delivery of programs and services for SDG&E and SDCWA customers. Using this framework as a starting point, SDG&E and SDCWA developed and implemented joint programs that save both water and energy and provide water and energy rebates. In 2020, program implementation focused on the following areas

1. Commercial Kitchen (Small/Med. Businesses) Direct- Installation Instant Rebate WEN Program

Program Description

This initiative targeted small and medium sized customers with commercial kitchens. The offer provided additional funding from SDCWA to reduce customer co-pays for the installation of steam cookers, ice machines, aerators, and pre-rinse spray valves through SDG&E's Business Energy Solutions program. By combining the water and energy incentives, customers would benefit from a reduced co-pay at the time of installation for the water and energy saving measures. Educational materials provided to

customers included information on water-use efficiency.

2020 Program Accomplishments

- Updated collateral material (flyers, postcards, email content, social media) to reflect rebated changes
- Commenced marketing in Q1, however, due to the COVID-19 pandemic, marketing activities were halted for a brief time due to the contractor’s inability to enter customer facilities

2. Multifamily Direct- Installation Instant Rebate WEN Program

Program Description

This initiative targeted property owners/managers through the Multifamily Energy Efficiency Rebate program. The offer provided additional funding from SDCWA for the installation of low-flow showerheads and aerators.

2020 Program Accomplishments

By yearend, 478 aerators and 126 showerheads were installed. Due to the COVID-19 pandemic, the contractor’s ability to install measures in customers’ homes was affected.

3. Mobile Home Direct- Installation Instant Rebate WEN Program

Program Description

This initiative targeted customers who participated in the Mobile Home Program. The offer provided additional funding from SDCWA for the installation of low-flow showerheads and aerators.

2020 Program Accomplishments

By year-end, 728 aerators and 43 showerheads were installed. Due to the COVID-19 pandemic, the contractor’s ability to install measures in customers’ homes was affected.

Challenges/Changes for 2021

The partnership ended on December 31, 2020.

LOCAL GOVERNMENT PARTNERSHIPS:

A. SDGE3272 LGP – City of Chula Vista Partnership

Program Description

The Chula Vista Local Government Partnership's (LGP) goal is to improve community and municipal energy efficiency by integrating education and outreach across City departments. The program components include municipal facility efficiency improvements, strengthening building energy codes and inspections, energy engineering, community-based energy conservation education, facility evaluations and financing assistance. The program serves the 265,000 residents and 13,000 businesses within the City of Chula Vista, while also supporting neighboring South Bay cities' energy efficiency efforts as part of the South Bay Energy Action Collaborative (SoBEAC). The information and data for the following implemented strategies and program accomplishments were provided by the Partner in order to review the program's performance in 2020.

Implemented Strategies

In 2020, the Chula Vista Partnership continued to address the key components of their strategy around municipal facility improvements, energy codes, and improving community and municipal energy efficiency savings that meet and exceed designated objectives in creating new energy efficiency opportunities in the community. A multi-faceted effort focused on commissioning and retro-commissioning city facilities, as well as designing and implementing a behavioral change campaign for city staff.

City staff worked on the Climate Action Plan (CAP) implementation and continued progress with building policies that would address existing single-family home upgrades and benchmarking for multifamily and commercial buildings. These ordinances were brought to city leaders in 2020 and staff for approval and implementation. In addition, the city worked on a joint project with the Port of San Diego in the development of a M&V Plan and Tracking Tool for the Chula Vista Bayfront area.

Staff engaged the community through various outreach efforts despite the COVID-19 restrictions and the inability to participate at in-person activities. Most programs have been implemented online, via meetings and webinars. For example, the Summer Sustainability Series, included a suite of nine sustainability webinars highlighting energy efficiency and other climate action topics.

In coordination with SDG&E and the San Diego Association of Governments, Chula Vista continued to participate in the "South Bay Energy Action Collaborative" (SoBEAC) during 2020, although the National City Free Resource and Energy Business Evaluation (FREBE) program, with support from the National City Chamber of Commerce, was paused in March due to the inability to visit businesses.

Challenges/Changes for 2021

The Local Government Partnership contracts ended in 2020. SDG&E is soliciting new local government programs under the third-party implementer model in 2021.

2020 Program Accomplishments

In 2020, the city made progress on several initiatives focused on municipal energy usage. Staff hired consultants to commission a brand-new fire station, retro-commission several existing buildings, develop specifications for LED retrofits, and create language for future RFPs regarding commissioning of new city facilities. These tasks go a long way towards making municipal facilities more efficient. In addition, the City developed a behavioral change campaign aimed at inspiring energy reduction actions by participants. Over 110 city employees participated and accomplished over 600 energy savings actions at home and at work during the four-week campaign.

In terms of Climate Action Plan efforts, staff developed the Chula Vista Climate Equity Index which was approved by the Sustainability Commission in the fall of 2020. The Climate Change Working Group voted on seven new climate action recommendations, including efforts to reduce GHG emissions from building energy use. Additionally, City Council approved the Existing Building Residential Energy Efficiency Ordinance which is set to take effect in early 2021. Council also approved the 2016 Greenhouse Gas Inventory. The 2018 GHG inventory is on target to be completed by the end of 2020.

To facilitate tracking of the Chula Vista Bayfront energy requirements, the Port of San Diego and City of Chula Vista developed an M&V Plan that establishes a process and tracking methodology to manage and document energy management and efficiency practices for current and future projects within the development.

The FREBE Team engages Chula Vista businesses to participate in mandatory on-site energy and water evaluations and provide referrals to SDG&E energy efficiency programs. In 2020, the team was able to reach 61 businesses, which received their FREBE report to help them save money and contribute to the City's Climate Action Plan goals. Businesses learned about SDG&E programs and 22 of them were referred to Business Energy Solutions Program for energy efficiency improvements. Due to COVID-19, all business visits were halted in the middle of March and for the remainder of the year. In addition, the CLEAN Business program was halted in March due to COVID-19, but City staff were able to assist six businesses to become verified remotely. The CLEAN Business program is an integrated energy efficiency and sustainability effort and is voluntary for Chula Vista businesses.

The Climate Action Challenge continued to grow through 2020 and now has almost 300 Chula Vista households participating. Additionally, staff worked with City libraries to develop and offer the Sustainable Home Toolkit to residents in fall 2020. This toolkit provides tools and information to identify

energy efficiency opportunities in residents' homes.

The Empower Hour is an after-school program offered by the Recreation Department to engage and educate children on energy and energy efficiency topics. Throughout 2020, Empower Hour delivered 76 activities and reached 937 children. The Empower Hour program was put on hold March 13th, 2020. No other activities or events were provided or attended after that date due to COVID-19.

As part of the San Diego Regional Energy Partnership (SDREP), an effort of the Local Government Partnerships (LGPs) and SDG&E, the City of Chula Vista worked with the City of San Diego to provide Benchmarking Coach services to support to almost 30 organizations that control numerous buildings throughout San Diego County.

Chula Vista's Sustainable Communities program was adapted to an electronic format in mid-March and planning staff were able to work with the San Diego Green Building Council on the update of the Air Quality Improvement Plan (AQIP). Staff consultants were also able to assist applicants navigate through Title 24 requirements and offered four webinars to further enhance knowledge of building codes.

B. SDGE3273 LPG – City of San Diego Partnership

Program Description

The City of San Diego Local Government Partnership (LGP) is a catalyst for increasing energy efficiency in City operations and in the community. The goal of the 2016-2020 City of San Diego Energy Efficiency Partnership is to increase the City's role as an environmental steward, leader in best practices and to support the City's Climate Action Plan (CAP). The five program areas focus on improving municipal building energy efficiency, codes and standards, community education, the San Diego Regional Energy Partnership (SDREP), and overall management of the partnership activities. While this is a non-resource program, savings resulting from the City's LGP activities are captured in other programs offered by SDG&E. The information and data for the following implemented strategies and program accomplishments were provided by the Partner in order to review the program's performance in 2020.

Implemented Strategies

In 2020, the City focused significant effort on various initiatives to audit and analyze municipal facility energy usage to plan for short and long-term energy efficiency retrofits as part of its Municipal Energy Strategy (MES). Sustainability Department staff also continued participating in education and certifications addressing LEED concepts and zero net energy buildings. Staff also implemented the Energy Goals staff education campaign for City employees. Both education efforts were well received despite staff experiencing significant disruption related to COVID-19, specifically the requirement to work remotely most of the year.

The City's Climate Action Plan (CAP) continues to play a crucial role in driving energy efficiency and sustainability across the community, and a number of updates and advancements happened throughout 2020. Staff also continued implementing the City's benchmarking ordinance as part of the CAP. The benchmarking team completed the development of the internal Salesforce Tool to manage the data collected through the benchmarking ordinance implementation and to modernize communication between the City and building owners/property managers.

While the City officially ramped down its own Green Business Network in 2020 in anticipation of limited staff resources beyond 2020, the City continued its support for regional efforts including the Regional Green Business Program, and the Climate Collaborative.

Challenges/Changes for 2021

The Local Government Partnership contracts ended in 2020. SDG&E is soliciting new local government programs under the third-party implementer model in 2021.

2020 Program Accomplishments

Staff completed the Municipal Energy Strategy (MES) and presented it to City Councilmembers on the Environment Committee in September 2020. The MES is a high-level, guiding document that puts the City's facilities on the path to zero emissions. The MES outlines five strategy areas to reduce municipal GHG emissions and energy use as defined in the CAP. Staff and consultants also continued development of the MES Implementation Plan. This document is more detailed than the MES and describes specific energy projects, policies and programs to be implemented over the next 15 years, as the 2035 municipal GHG reduction milestone approaches. In support of MES Implementation Plan development, the City performed ASHRAE Level 2 energy audits on seven water/wastewater treatment plants and seven sewer pump stations to identify energy efficiency opportunities. City staff also performed retrocommissioning (RCx) on the Civic Center Complex which included nine measures and is currently undergoing Measurement & Verification.

The City made considerable progress in strengthening staff knowledge and expertise in energy efficiency and related topics. In 2020, 256 staff attended nine trainings addressing LEED concepts, ZNE buildings and the water-energy nexus. In addition, 21 City staff successfully secured Green Professional Building certification and one employee secured the LEED Green Associated credential. In terms of broader reach, the City's Energy Goals staff engagement campaign successfully engaged 919 employees and garnered 1,238 energy savings actions. Ninety-five percent of City departments participated, with 50% of participants gaining knowledge from the 'Pledge, Learn, Act' framework.

In December, the 2020 CAP Annual Report was released digitally, showing that San Diego continues to decrease emissions from the 2010 baseline. To support an update to the City's CAP, staff

began engaging residents in 2020 including virtual forums that reached approximately 400 residents, an online survey that received 1,800 responses, and 10,000 climate action activity books given to youth through the libraries. The City also incorporated the Climate Equity Index in policy initiatives such as Complete Communities to direct resources and increase engagement in San Diego's Communities of Concern, empowering these communities in the decision-making process.

The City's also focused on benchmarking adoption across the business community by delivering three virtual workshops providing in-depth information about the City's Benchmarking Ordinance. As a result, the compliance rate for the benchmarking ordinance increased by ten percent since 2019 to 48% overall, with multifamily at 55% and commercial at 45%.

C. SDGE3274 LGP – County of San Diego Partnership

Program Description

The County of San Diego Local Government Partnership (LGP) delivers net energy savings, peak demand savings and sustained energy efficiency through the implementation of both internal and external education and outreach programs, community-based implementation programs and projects at County facilities. The Partnership will assist the County of San Diego with its Strategic Energy Plan implementation, including Reducing Energy Usage and Cost; Reducing Embodied Energy in Potable Water Use; Green Buildings and Infrastructure; and Monitoring and Communication/Education. The information and data for the following implemented strategies and program accomplishments were provided by the Partner in order to review the program's performance in 2020.

Implemented Strategies

Department of Planning and Development Services (DPDS) staff continued to implement programs and strategies outlined in the County's Climate Action Plan (CAP) to reduce greenhouse gas emissions (GHG) in the unincorporated area and in County operations. Work in 2020 focused on an annual monitoring report and GHG emission inventory. This baselining work will help the County to develop additional energy and water saving measures in the CAP Update.

In light of the COVID-19 pandemic, Department of Parks and Recreation (DPR) staff transitioned to online program implementation to distribute program information. Staff continued to use DPR's unique positioning to outreach to residents and increase awareness of the County's Energy Efficiency efforts and SDG&E programs. DPR successfully participated in many virtual, signature events including, Earth Day celebrations and hiking challenges. Employees at all levels engaged in strategic outreach efforts, including all ten Regional Managers and Deputy Director.

The Department of General Services (DGS) continued focus on auditing County facilities to

identify energy efficiency savings opportunities and completing retrocommissioning projects. These efforts are resulting in energy savings in the short term as well as a pipeline of opportunities beyond the current Local Government Partnership.

Challenges/Changes for 2021

The Local Government Partnership contracts ended in 2020. SDG&E is soliciting new local government programs under the third-party implementer model in 2021.

2020 Program Accomplishments

The second CAP Annual Monitoring report was released in September 2020 and gives a status update on all 26 measures in the CAP. The report shows that the County is on track towards meeting its 2020 emissions reductions target and achieved a reduction of 130,075 metric tons of carbon dioxide equivalent in 2019. In addition, development of an updated greenhouse gas emissions inventory was initiated towards the end of 2020. To supplement and support GHG reduction initiatives outlined in the CAP, PDS staff finalized the development of the DIY Energy Efficiency Toolkit program that will be available to library patrons in partnership with the County Library. These kits will provide resources for implementing upgrades that save energy and water in residences and businesses. There will also be additional information on how to access energy savings programs available through SDG&E in the region.

Prior to COVID-19 closures, DPR staff attended a total of six in-person events including, regional STEM events and the County's signature event It's How We Live (IHWL). Events attended by DPR staff had an estimated in-person attendance of 3,000 residents. In-person outreach included efforts in the designated hard-to-reach communities of San Diego, National City, Chula Vista, and El Cajon. Virtual events included energy savings programs such as Watts Cooking as sponsored by the Energy Saving Adventure program in partnership with the department's SD Nights team. In total, DPR participated in 41 events (in-person and digital), with a participation rate estimated at 10,000 residents. DPR spearheaded the collaboration with General Services, Planning, and Library departments to develop a sustainability scavenger hunt and community program for Borrego Springs. The program highlights the Zero Net Energy features at the Borrego Springs Library and highlights tips residents can use to save energy at home.

Department of General Services (DGS) staff completed feasibility studies including a plan for creating a Continuous Commissioning Program, energy efficiency audits at 65 buildings on 23 campuses, solicitation for a Zero Net Energy facility, and construction in process for three others. There were two retrocommissioning projects completed this year including the East Mesa Juvenile Detention facility with estimated savings of 670,000 kWh annually, and the South Bay Regional Center with an estimated 800,000 kWh and 48,000 Therms annually. There were also lighting retrofits completed at five facilities, and the County is now tracking energy use against predicted baselines at a total of 20 facilities.

D. SDGE3275 LGP – Port of San Diego Partnership

Program Description

The goal of the 2016-2020 Port of San Diego's (Port) – San Diego Gas & Electric (SDG&E) Energy Efficiency Partnership (Partnership) is to increase the Port's role in the region as an environmental champion and progress achievement of the Port's Climate Action Plan (CAP) greenhouse gas (GHG) reduction goals. These goals will be accomplished by maximizing energy efficiency on Port tidelands and providing Port tenants, staff, and the public the necessary tools to make decisions that continue to promote energy efficiency. Work done through the Partnership is concentrated within the Port's five-member cities: San Diego, Coronado, National City, Chula Vista, and Imperial Beach. The information and data for the following implemented strategies and program accomplishments were provided by the Partner in order to review the program's performance in 2020.

Implemented Strategies

The Port continued its efforts across a number of areas to reduce energy usage and greenhouse gas (GHG) emissions both within Port-operated facilities, and across the tidelands. By conducting ASHRAE Level 1 and Level 2 audits, RCx studies, and Lighting assessments, the Port has identified opportunities for significant reductions in electricity, natural gas and GHG emissions. Focusing on energy efficiency behaviors, Port staff implemented campaigns and communications to promote the benefit across all employees. To measure progress on all energy efficiency projects and initiatives, the Port developed technology systems leveraging billing information and other data sources that will show actual usage reductions over time.

The Port also worked beyond their own facilities to impact energy efficiency across their tidelands including a partnership with the City of Chula Vista for a Bayfront Energy, Measurement and Verification Plan to track energy requirements in this new development project, and a Climate Action Plan (CAP) study to identify further strategies to reduce GHG emissions.

Challenges/Changes for 2021

The Local Government Partnership contracts ended in 2020. SDG&E is soliciting new local government programs under the third-party implementer model in 2021.

2020 Program Accomplishments

The Port conducted its inventory of GHG emissions from electricity, natural gas, fleet vehicles, and equipment. The GHG inventory report found that GHG emissions have decreased 30% since 2008 and overall energy use by 25% which has been considered successful progress.

To prepare for further energy and GHG emissions reductions, the Port completed audits for six

Port-operated facilities altogether identifying approximately 283,000 kWh in energy savings opportunities and an estimated \$69,500 in annual savings. The Port also conducted a study concentrated on low-cost retro-commissioning (RCx) measures at the Administration building, which is one of the Port's more energy intensive facilities. The study identified approximately 311,000 kWh and 12,000 therms in savings potential equivalent to an estimated \$78,000 savings annually. The Port also conducted a lighting study for the National City Marine Terminal identifying lighting retrofit opportunities estimated to result in an annual energy reduction of 1.2M kWh, an estimated \$417,500 annually in operating savings and \$25,960 in bi-annual maintenance savings. The Port is leveraging the information gained conducting energy audits, the RCx study and the lighting study to evaluate funding mechanisms, in light of budgeting constraints in the coming fiscal year due to COVID-19 implement energy savings projects and GHG reduction goals beyond the Local Government Partnership.

Focusing on staff engagements for energy efficiency, the Port led a virtual Earth Week event which consisted of an Actions Challenge organized through the Port's intranet. Altogether 24 staff members implemented 231 energy efficiency and sustainability measures at home. Throughout 2020, Port staff were informed of energy efficiency, energy management and sustainability trainings through memos sent to 190 employees across relevant departments. The Port also developed a new employee engagement game and training module for existing and new staff. The intent of the portal is to facilitate on-boarding for new Port staff to promote energy efficient best practices and behavior. This will be featured as a part of the Port's Learning Management System into 2021.

The Port also developed two technology systems to track progress on efforts. The Energy Usage Dashboard (Electricity and Natural Gas) utilizes Power BI and leverages six years' worth of SDG&E Bill Summary Reports for all the Port's SDG&E accounts. The Port also developed a greenhouse gas (GHG) Emissions Tracking Tool that allows Port staff to calculate GHG emissions across a variety of sources including energy, transportation, water, and waste categories.

The Port worked with the City of Chula Vista to develop the Chula Vista Bayfront Energy Measurement and Verification Plan template and tracking tools to implement the energy requirements for the Bayfront Project per the development policies. The tools developed summarize and track the energy policy requirements, targets, restrictions, deadlines, and other important requirements.

The Port prepared a Climate Action Plan (CAP) Study to align post-2020 GHG reduction goals to California's GHG reduction targets for 2030 and 2050. Port staff will use this study as a foundation for an updated CAP. The Port completed a CAP Study to help identify GHG reduction strategies to meet State goals and serve as a foundation to setting future GHG emissions targets for the CAP Update post-2020. The Port developed a CAP Cost Effectiveness tool to accompany the Study. This work aligns with the CAP

implementations strategies, budgetary considerations at the Port, and prioritizes strategies from a cost-benefit perspective. The analysis estimates the units of GHG emissions reduced per dollar invested, providing a ratio of dollars to metric tons of carbon dioxide equivalents (\$/MT CO₂e). To support the Port's tidelands-wide energy monitoring and usage reporting, at the request of the Board of Port Commissioners, the Port developed a public-facing report on the Tidelands energy usage. The report identifies energy usage trends for calendar years with a focus on usage in 2018-2019 to help the Port understand focus areas for energy efficiency amongst the tenant population.

E. SDGE3276 LPG – SANDAG Partnership

Program Description

The San Diego Association of Governments (SANDAG) serves as the regional planning agency for the 18 cities and County governments of the San Diego Region. The SANDAG LGP functions to deliver energy efficiency services, climate action planning services, and related assistance to the 16 member cities that do not have direct LGP agreements with SDG&E. The Program also allows SANDAG to integrate energy efficiency and greenhouse gas (GHG) reduction practices into its internal operations and as part of the projects it develops for the San Diego region. The information and data for the following implemented strategies and program accomplishments were provided by the Partner in order to review the program's performance in 2020.

Implemented Strategies

In 2020, SANDAG continued to provide support to cities across the region including energy engineering work to identify energy efficiency opportunities in municipal buildings and direct climate action planning support to advance initiatives that each city is implementing towards reducing GHG emissions. Updates were made to the Regional Climate Action Plan (ReCAP) Framework including enhancements to providing this information to member agency cities via online portals.

To facilitate regional collaboration on energy efficiency and related issues, SANDAG continued to hold quarterly Energy Action Collaboratives with each of four sub-regions to facilitate information-sharing and best practices coordination among SANDAG, SDG&E, and local agency staff from all member agency cities. In addition, SANDAG led the San Diego Regional Climate Collaborative (SDRCC) effort to generate support and momentum towards sustainability and climate action goals.

Challenges/Changes for 2021

The Local Government Partnership contracts ended in 2020. SDG&E is soliciting new local government programs under the third-party implementer model in 2021.

2020 Program Accomplishments

In 2020, SANDAG achieved some important milestones in support of climate action planning across the region. Staff completed an update to the Regional Climate Action Plan (ReCAP) Framework, and provided ReCAP Snapshots to each member agency city, including GHG inventories that the city's use to measure progress on their efforts. SANDAG also developed an online climate action data portal so city staff and community members can stay up to date on implementation efforts and progress. In addition, the City of Lemon Grove completed their first Climate Action Plan, the City of San Marcos completed a CAP update, the Cities of Escondido and Vista began making CAP updates, and the City of Del Mar completed a CAP Implementation Plan. SANDAG also prepared several issue-focused reports, included analyses of the regional impact of energy-focused CAP measures and energy data availability. SANDAG also received an award for work completed under the Roadmap Program: The San Diego Association of Environmental Professionals Outstanding Innovation in Green Planning and Design award for the ReCAP Snapshots and Climate Action Data Portal.

SANDAG also worked closely with the Energy Policy Initiatives Center (EPIC) and the San Diego Regional Climate Collaborative (SDRCC) to develop and launch the San Diego Region Energy Efficiency Story map. This online tool showcases energy efficiency goals and implementation efforts across the region including interactive maps where users can see the status of each city's climate action plan and where various projects are being implemented.

In support of city efforts to implement energy efficiency upgrades in their municipal facilities, SANDAG completed energy engineering technical support for the Cities of Carlsbad, Coronado, El Cajon, La Mesa, Vista, and the SANDAG Toll Operations Center. This involved working with expert technical experts to audit community centers, libraries, pools and other facility types to identify energy saving opportunities.

F. SDGE3277 LGP – SEEC Partnership

Program Description

The Statewide Energy Efficiency Collaborative (SEEC) catalyzes local government action toward meeting CLTEESP (California Long Term Energy Efficiency Strategic Plan) goals via technical support, coaching, education, peer-network development, and recognition through three Non-Government Organizations (NGO's): Local Governments for Sustainability (ICLEI), Institute for Local Government (ILG), Local Government Commission (LGC) and Best Practices Coordinator (BPC). The information and data for the following implemented strategies and program accomplishments were provided by the Partner in order to review the program's performance in 2020.

Implemented Strategies

In 2020 SEEC continued to focus on educating, supporting and implementing activities by California cities and counties to reduce greenhouse gas emissions and save energy. The collaborative employed a variety of strategies to catalyze local climate and energy action, including education and tools for climate action planning, venues for peer-to-peer networking and information sharing, technical assistance to implement, track and assess the progress of cities and counties, and recognize the progress of cities and counties' efforts in energy efficiency and sustainability with the annual Beacon award.

Challenges/Changes for 2021

The Local Government Partnership contracts ended in 2020. SDG&E is soliciting new local government programs under the third-party implementer model in 2021.

2020 Program Accomplishments:

The Best Practices Coordinator (BPC) created the California Local Energy Technical Assistance Directory featuring experts who provide free technical assistance to local government staff on energy and climate topics. In addition to the directory, the Best Practices Database was created to provide local governments with case studies on successful and replicable energy projects. The BPC also hosted two webinars during the 11th Annual SEEC Forum focused on Disadvantaged Communities (DAC's) and to focus on how SEEC can support local governments in the long term.

LGC organized the 11th Annual SEEC Forum as a virtual six-month webinar series due to COVID-19 concerns. The Forum featured diverse topics and several community engagement activities. LGC staff coordinated the online forum including 20 Webinars centered around the theme of Promising Solutions for a Clean Energy Future and reached 1,824 attendees. In addition to organizing the forum, LGC produced an annual legislative update fact sheet and developed a COVID-19 inspired brief on Maintaining Sustainability Staff.

As of December 2020, the Beacon Awards program supports and recognizes over 160 participating cities and counties setting the standard in California for what it means to be a healthy and vibrant community. In total, ILG handed out 55 Beacon Spotlight and Vanguard Awards across the state at the October 8 virtual awards ceremony. This year's award winners reduced over 5 million metric tons of carbon dioxide, equating to about \$450 million in public health benefits.

ICLEI USA focused on providing technical assistance to California communities completing community-wide and local government operations greenhouse gas (GHG) inventories via the ClearPath tool. Efforts focused on completing inventories, forecasting emissions, modeling potential reduction measures, and including adaptation and equity components into climate action plans. In 2020, 82 community-wide inventories and five local government inventories were completed in ClearPath. ICLEI

USA also developed a 2020 update of the State of Local Climate Action report for California communities highlighting the achievements in climate action made in the years 2016-2020. The report is near completion and expected to be published in January 2021.

G. SDGE3278 LPG – Emerging Cities Partnership

Program Description

The Emerging Cities Program (ECP) is part of the Local Government Partnership umbrella and is intended to provide local governments additional resources to support and build capacity in engaging in energy efficiency activities that achieve deep, comprehensive energy savings. The ECP collaborates with SANDAG’s Energy Roadmap Program to provide energy assistance to public entities with energy and sustainability projects and community outreach.

Additionally, the ECP funds activities supporting municipal codes and standards, education and outreach, implementation of Climate Action Plans (CAP) and Energy Action Plans (EAP), greenhouse (GHG) reduction plans and other sustainable projects.

Implemented Strategies

Program staff regularly attended SANDAG’s Energy Action Collaborative meetings to engage with cities and identify opportunities where the ECP could help advance local government efforts to expand knowledge around energy efficiency, increase community participation on climate action planning efforts, and support the implementation of their climate action plans. The Energy Action Collaboratives include the North Coast Energy Action Collaborative (NCEAC), which consists of the cities of Del Mar, Solana Beach, Encinitas, Carlsbad, and Oceanside, the South Bay Energy Action Collaborative (SoBEAC), which consists of Chula Vista, Imperial Beach, National City, and Coronado, the Inland Cities Collaborative (InC), which consists of Poway, San Marcos, Vista, and Escondido, and the East County Energy Collaborative (ECo), which consists of La Mesa, Santee, El Cajon, and Lemon Grove.

Program staff also collaborated with SDG&E’s marketing team to develop a fact sheet and PowerPoint presentation, highlighting the types of activities that can be implemented, along with examples of past ECP projects, to help guide future projects and recruit new participants. In addition to these tools, the program leveraged SDG&E’s Account Executives as well, setting up individual meetings with potential candidates to explore ways in which the ECP could help support their particular goals.

Challenges/Changes for 2021

The Local Government Partnership contracts ended in 2020. SDG&E is soliciting new local government programs under the third-party implementer model in 2021.

2020 Program Accomplishments

Programmatic successes included assisting the City of Lemon Grove with public outreach services to inform their Climate Action Plan (CAP). This task included educating residents about the City's CAP and soliciting critical community feedback. To accomplish this objective, a vendor was contracted to develop an outreach strategy, create and update outreach materials, and prepare a summary of the results for inclusion in the City's CAP. Postcards were mailed to residents and businesses across the City, totaling nearly 10,000. An outdoor banner was also created for the City to display, along with approximately 2,000 flyers highlighting greenhouse gas reduction strategies and 1,000 CAP brochures explaining how to get involved.

Additionally, the City of La Mesa, in partnership with SDG&E, was able to utilize the ECP to expand their successful do-it-yourself energy and water efficiency kits that were originally developed in 2019 through the program. The kit provides step by step instructions on how to conduct an at home energy and water audit, includes tools to measure wattage and water flow and can be checked out from multiple locations around the City of La Mesa. The kits also include small giveaways like light bulbs and weather stripping that can help participants better understand energy saving technology. This latest project focused on restocking the toolkit contents as well as updating and enhancing messaging to speak to the current COVID-19 global pandemic. For example, key messages were added to the marketing plan, addressing the sanitation of the toolkits, along with the increased energy usage that is occurring due to most of the community working and attending school from home. Two new marketing videos were also produced, promoting the City's contactless pick-up process as a way of encouraging program participation in spite of the current climate. Approximately 50 flyers and 100 posters were developed as well, both of which can be shared in a digital format.

STATEWIDE EMERGING TECHNOLOGIES PROGRAMS

The statewide Emerging Technologies Program (ETP) supports the California Investor-Owned Utility (IOU) energy efficiency (EE) programs in their achievement of aggressive objectives through three subprograms:

- The Technology Introduction subprogram supports efforts to introduce technologies to the market by exposing end users to applications of emerging technologies in real-world settings, and by using third-party projects to deploy technologies, on a limited scale, in the market.
- The Technology Assessment subprogram identifies and assesses the performance of emerging EE technologies and solutions that may be offered to customers with an incentive.
- The Technology Development Support subprogram promotes efforts to increase technology supply by educating technology developers about technical and programmatic requirements for rebated (incentivized) measures.

ETP uses several tactics to achieve the objectives of these subprograms. Some of the key tactics are described below, but each tactic may be used to achieve any of the subprogram objectives, and this list is not comprehensive.

A. SDGE3246 SW-ET – Technology Introduction Support

Program Description

The Technology Introduction Support (TIS) subprogram supports the introduction of new technologies to the market, on a limited scale, through several activities including Scaled Field Placement (SFP) projects, Demonstration and Showcase (D&S) projects, and market and behavioral studies.

SFP projects place measures at several customer sites as a key step toward gaining market traction and feedback. Typically, these measures have already undergone an assessment or similar evaluation to reduce risk of failure. Monitoring activities on each scaled field placement are determined as appropriate.

D&S projects are designed to provide key stakeholders the opportunity to "kick the tires" on proven combinations of measures that advance Zero Net Energy (ZNE) goals. D&S projects introduce measures at a systems level to stakeholders, whether the general public or a targeted audience, in real-world settings, thus creating broad public and technical community exposure and increased market knowledge.

Market and behavioral studies are designed to perform targeted research on customer behavior, customer decision-making, and market behavior to gain a qualitative and quantitative understanding of customer perceptions, customer acceptance of new measures, and market readiness and potential for new measures.

Implemented Strategies:

SDG&E's ETP implemented several strategies in pursuit of its goals for the 2020 TIS subprogram. The ETP scanned and screened for nascent and emerging technologies from a wide variety of sources – CEC EPIC (Electric Program Investment Charge) Program, Emerging Technologies Coordinating Council (ETCC) Basecamp, industry groups, Electric Power Research Institute (EPRI), E Source, CEE (Consortium for Energy Efficiency), GTI (Gas Technology Institute) – while coordinating closely with other SW ET members and internal EE Program advisors and engineering support staff to prioritize measures and technologies suitable for TIS projects.

SDG&E conducted TIS projects in support of measure development by implementing SFP and D&S projects in actual field conditions, while also performing primary or secondary market research, as necessary, to gain market insights on technologies.

The ETP scanned, screened, and prioritized TIS project ideas in coordination with the energy efficiency programs as well as statewide ETCC partners. The results of these activities included primary and secondary market research to gain further insight into new technologies and their potential in SDG&E's service territory.

However, due to ETP's impending transition to third party implementation model in 2021 (ETP-EE-Gas) and 2022 (ETP-EE-Electric), the TIS Program focus for 2020 was to complete all previously committed projects.

Throughout 2020, the SDG&E ETP participated in key industry advisory committees (ETCC, CEE, EPRI, E Source), virtual summits and conferences, open forums, and webinars to share research results with stakeholders and interested public audiences. Completed project reports were published to the ETCC website.

Challenges/Changes for 2021

The new statewide ETP-Electric third-party program administered by SCE and the new statewide ETP-Gas program, administered by SCG are expected to begin implementation in 2021. As part of the transition to these new statewide programs, SDG&E does not plan to initiate new ET projects. SDG&E will instead focus on completing the five remaining active projects initiated in previous years and funded with budget approved through 2021.

2020 Program Accomplishments

Under the TIS subprogram, SDG&E continued to execute the five projects it has currently underway. The five projects focus on a range of market segments and applications, specifically: a residential HVAC quality installation and quality maintenance project (evaluating the energy impacts of

proper QI/QM); a small commercial HVAC lighting-based EMS controller (using lighting-based occupancy to control HVAC units); an evaluation of a residential IDSM behavioral technology; and an alternative refrigerants project focusing on low-greenhouse warming potential (low-GWP) refrigerants.

B. SDGE3247 SW-ET – Technology Assessment Support

Program Description

Through its Technology Assessment (TA) element, a historical core function providing critical support to EE programs, the ETP evaluates the performance claims of EE measures that are new to the market, or underutilized for a given application, for overall effectiveness in reducing energy consumption and peak demand. A key objective of these assessments is the adoption of new measures into SDG&E's portfolio. Data from different sources may be used to support assessment findings, including *in situ* testing (conducted at customer or other field sites), laboratory testing, or paper studies. In addition to other findings, assessments typically generate some of the data that EE incentive programs can use to construct a Work Paper for each measure, estimating energy and demand savings over the life of the measure.

Implemented Strategies

In 2020, SDG&E implemented several strategies to accomplish the goals of the TA subprogram. SDG&E kicked off an Electric Power Research Institute (EPRI) low-income, multifamily residential whole-building demonstration project through the CEC EPIC Program, in partnership with multifamily low-income building owners and/or operators. This project is in support of advancing state goals and understanding of the implications of decarbonization on low-income MF buildings, owners and tenants (i.e., overall retrofit project costs, grid interactions, existing infrastructures, tenant needs, etc.). SDG&E started the process of researching and canvassing for eligible candidate sites in 2020.

In collaboration with IOU and non-IOU partners, SDG&E scanned a wide variety of sources for assessment candidates. These sources included (but were not limited to): the ETCC website idea submission portal, ideas presented to us by our past and current consultants, product vendors and manufacturers, and from past pilot studies. SDG&E identified, screened, and prioritized these technologies or strategies for inclusion to the program's TA studies. For the three TA projects that were completed in 2020, SDG&E's ETP produced reports describing TA results, conclusions, and recommendations and engaged the various EE programs' other stakeholders to conduct the tech transfer of the studies' findings. For example, the results from the gas steam table project were transferred to EE program stakeholders and recommended for technology adoption as a deemed rebate measure.

And in partnership with its IOU and non-IOU counterparts, SDG&E's ETP coordinated intake ideas and assessments, and shared technology information through the virtual ET Summit 2020 and coordinated webinars with the ETCC on various topics for residential, commercial, industrial, and

agricultural sectors.

Again, due to ETP's impending transition to third party implementation model in 2021 and 2022, the primary focus for the 2020 TA Program was to complete all committed projects. However, the ETP continued its mandate to scan, screen, and prioritize TA candidate projects and technologies in coordination with the energy efficiency programs as well as statewide ETCC partners. These activities resulted in two new projects initiated in 2020. These two projects focus on the technology areas of commercial low-GWP (Global Warming Potential) advanced heat-pump systems and residential heat pump water heating equipment.

Challenges/Changes for 2021

The new statewide ETP-Electric third-party program administered by SCE and the new statewide ETP-Gas program, administered by SCG are expected to begin implementation in 2021. As part of the transition to these new statewide programs, SDG&E does not plan to initiate new ET projects. SDG&E will instead focus on completing the eight remaining active projects initiated in previous years and funded with budget approved through 2021.

2020 Program Accomplishments

In addition to initiating two new projects, in 2020 SDG&E's TA Program completed three previously initiated projects. These are: EPRI Micro Brewery Energy Savings Opportunities, High Efficiency Steam Tables (co-funded with SoCalGas) and EPRI Data Center Collaborative. The High Efficiency Steam Tables study was recommended for transfer to a rebate program. Completed project reports were published to the ETCC website for public sharing and reference.

SDG&E collaborated with IOU and non-IOU partners in scanning a wide variety of sources for assessment candidates, coordinating with ETCC members on intake ideas and assessments, and shared technology information through the 2020 ET Summit. SDG&E coordinated and collaborated with ETCC and CEC on multiple webinars, focusing on various topics for the residential, commercial, industrial, and agricultural sectors.

C. SDGE3248 SW-ET – Technology Development Support

Program Description

The Technology Development Support (TDS) subprogram provides assistance to private industry in developing or improving technologies. Although product development – the process of taking an early-stage technology or concept and transforming it into a saleable or marketable product – is the domain of private industry, there are opportunities where IOUs are well-qualified, or in a strong position, to undertake targeted, cost-effective activities supporting private industry product development efforts. This support

decreases innovators' uncertainties and allows SDG&E opportunities to influence the new technologies as they are developed.

Implemented Strategies

In 2020, SDG&E implemented several strategies to accomplish the goals of the TDS subprogram. SDG&E's ETP collaborated directly with industry actors and partners as well as innovators from universities and other research institutions, such as the Western Cooling Efficiency Center (WCEC), the California Lighting Technology Center (CLTC), the California Plug-Load Center (CalPlug), and the Electric Power Research Institute (EPRI) to provide targeted education, connection, technical and advisory support and guidance for technology development.

SDG&E continued to support early-stage companies through its SW ETP membership in the California Institute of Technology (Caltech) managed Rocket Fund program. The program provides entrepreneurial education and competitive funding to help accelerate university originated technologies from lab to product prototype ready for customer field testing. And in collaboration with the ETCC and the other ET market actors, continued ongoing business relationships with investors interested in funding cost-effective EE technologies.

SDG&E also continued ongoing business relationships with investors interested in funding cost-effective EE technologies. Once again, due to ETP's impending transition to 3rd party implementation model in 2021 and 2022, the primary focus for the TDS Program in 2020 was to continue to implement and complete all outstanding committed projects. While the ETP continued its mandate to scan, screen, and prioritize candidate projects and technologies, SDG&E did not initiate any new project under the TDS Program in 2020.

Challenges/Changes for 2021

The new statewide ETP-Electric third-party program administered by SCE and the new statewide ETP-Gas program, administered by SCG are expected to begin implementation in 2021. As part of the transition to these new statewide programs, SDG&E does not plan to initiate new ET projects. SDG&E will instead focus on completing the two remaining active projects initiated in previous years and funded with budget approved through 2021.

2020 Program Accomplishments

SDG&E continued to collaborate with innovators from universities and other research institutions to maintain ongoing business relationships with investors interested in funding cost-effective EE technologies. The Statewide ET Team coordinated on four webinars with the CEC's EPIC and building technologies team.

SDG&E is finalizing its two active TDS projects, namely a Solar Assisted HVAC Evaluation and an LED Container Growing Evaluation at the Salk Institute.

In addition to its typical subprogram – SDGE3246 (TIS), SDGE3247 (TA) and SDGE3248 (TDS) – activities, SDG&E’s ETP engaged in several additional activities in 2020.

In collaboration with ETCC leadership and partners, the Statewide ETP program successfully conducted a virtual ET Summit in 2020, which attracted over 200 attendees over the course of two days in late October.

In addition to the ET Summit, SDG&E’s ETP coordinated with its SW ETP and ETCC partners, with CEC participation and leadership, to successfully conduct four webinars in 2020, attracting nearly 85 attendees per event. The wide-ranging topics included session titles like: Accelerating Tech Transfer of California’s EPIC Projects, Battery Market Study, Grid-Interactive Efficient Buildings (GEBs), IoT, Rapid Modeling for Residential Communities, HFC Regulations, Natural Refrigerant Systems, and Cool Cows.

The SW ETP coordinated with the CEC EPIC Building Technologies team on the technology transfer process, developing a technology transfer form that embodies custom measure data requirements to help assist EPIC program contractors and staff communicate the measure development process with IOUs.

Taking into account and including broad stakeholder input, the SW ETP completed the electric Technology Priority Maps (TPMs) statewide updates and posted the document at <https://ca-etp.com/tpm>.

The SW ETP continued to enhance and update the ETCC website to facilitate project activity searches.

And finally, working with the SW ETP team, SDG&E collaborated and contributed comments on the two-stage (RFA and RFP) ETP-Electric solicitation.

Challenges/Changes for 2021

The ET program is scheduled to begin its transition to the Statewide third-party implementation model in late 2021 with the Statewide ET-Gas Program and continuing the transition with the Statewide ET-Electric EE Program in mid-2022. Once the SW structure takes full effect, ET projects will be selected and implemented as Technology Focused Pilots on a SW scale, guided by the Technology Priority Maps.

STATEWIDE FINANCE PROGRAM

A. SDGE3262 SW-FIN – On-Bill Finance

Program Description

The On-Bill Financing (OBF) Program is SDG&E's interest-free, unsecured finance offering designed to facilitate the purchase and installation of comprehensive qualified energy efficiency and demand response measures for non-residential customers, including multifamily property owners or management companies, who might not otherwise install EE measures, primarily due to capital constraints. Approved customers who install qualified equipment are eligible to receive a full rebate or incentive by participating in SDG&E programs and financing for the project cost balance. Customer loans are repaid through a fixed monthly installment repaid through the customer's utility bill.

Implemented Strategies

OBF coordinates with assigned account executives, partnership programs and third-party programs to support financing of approved measures and projects. Staff works closely with assigned customer accounts by providing outreach and participating in seminars, tradeshow, periodic meetings and special projects. Financing programs also enable SDG&E to provide alternative options for customers who may have financial constraints to install energy efficiency projects. The OBF trainings offer a two-way open communication channel between trade professionals and SDG&E's OBF Program staff.

Since its inception in 2006, SDG&E's OBF program has funded over 1,600 loans totaling approximately \$67 million as of year-end 2020. Although SDG&E has seen a reduction in commercial projects, there has been an uptake in industrial and institutional projects. SDG&E continues to implement a customer cap to ensure that funding remains available for more customers.

Challenges/Changes for 2021

Project Payback and Eligibility requirements for business projects to qualify continue to be a challenge for some customers. The payback tends to be much longer than the 15-year maximum required for business projects to qualify. SDG&E will continue to review protocol to ensure that the correct policies are in place while allowing the maximum number of qualified customers to participate.

2020 Program Accomplishments

SDG&E's OBF Program continues to be a practical and efficient means for customers to install energy efficiency measures they may not otherwise be able to afford. The program provides monthly trade professional training on the OBF process and requirements. The 2020 default rate for OBF was 0.46%. Projects that were facilitated by an OBF loan enabled savings of approximately 695,568 kWh, 15.8 kW and 3,931 Therms.

STATEWIDE CODES AND STANDARDS PROGRAM

Program Description

The Statewide Codes and Standards (C&S) Program saves energy on behalf of ratepayers by conducting advocacy activities with regulatory bodies such as the California Energy Commission (CEC) and the U.S. Department of Energy (DOE) to strengthen EE regulations through the Building and Appliance Advocacy subprograms. The Program conducts efforts to increase compliance with existing C&S building and appliance regulations through the Compliance Enhancement subprogram to ensure that California realizes the savings from new codes and standards. The Reach Codes subprogram supports local governments that include reach codes as a climate strategy. The Program also conducts planning and coordination with stakeholders and other Investor-Owned Utilities (IOUs) statewide to optimize collaboration, and code readiness activities to prepare for future codes.

C&S program advocacy, compliance enhancement activities (training, tools and resources) and reach code activities extend to virtually all buildings and appliances in California in support of California's ambitious climate and energy goals. Through the adoption of 2019 California Building Energy Efficiency Standards (Title 24, Part 6), the CLTEESP (California Long Term Energy Efficiency Strategic Plan) has achieved the following goal, "New construction will reach "zero net energy" (ZNE) performance (including clean, onsite distributed generation) for all new single and low-rise multi-family homes by 2020." The C&S Program continues to move California towards the CLTEESP goal that high rise multifamily and non-residential new construction will be ZNE buildings by 2030. The C&S program works with regulatory agencies, jurisdictions and compliance enhancement market actors to achieve these additional California objectives:

- Carbon reduction targets in 2020 equivalent to 1990 emissions levels (AB32) and 40% below 1990 by 2030 (AB 398 and SB 32)
- A cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end-uses by January 1, 2030 (California Senate Bill 350) to reduce existing building energy usage by 50 percent.
- Near-zero-emission building technologies to significantly reduce the emissions of greenhouse gases from buildings (California Senate Bill 1477 and Assembly Bill 3232).

Implemented Strategies

PG&E is the Statewide Program Administrator for the C&S Building Advocacy program. The program implemented advocacy activities for new or updated sections of California's Building Energy Efficiency Standards, related American Society of Heating, Refrigerating and Air-Conditioning Engineers

(ASHRAE) and International Code Council (ICC) activities. The C&S Appliance advocacy subprogram implemented advocacy activities for new California Title 20 Appliance Standards, Federal Department of Energy (DOE) appliance standards and related ENERGY STAR® activities. The Compliance Enhancement subprogram developed and implemented trainings, tools, and resources to support compliance with existing codes and standards. The Reach Code subprogram developed new resources and cost-effectiveness studies to support local government reach codes. The Planning & Coordination subprogram implemented long term planning and coordination activities to optimize work across California’s utilities and developed future codes design activities aimed at specific industries and technologies for future code cycles.

Challenges/Changes for 2020

As the focus on grid harmonization increases, it is necessary for building codes to encourage commercial buildings’ electrical systems to be ready for integration with renewables, storage, and respond to signals from the electrical grid. It is likely that integration of on-site generation, storage and efficiency measures will continue into the next several code cycles as statewide commercial building 2030 ZNE goals and GHG reduction goal milestones come due. As all building types approach ZNE and State zero carbon emissions goals evolve, a greater percentage of C&S program efforts will need to be focused on integrating efficiency measures with distributed energy resources, generally funded in non-EE proceedings. This area of work will be critical to advance in the next decade.

The six Codes and Standards subprograms are faced with new challenges and opportunities as the grid modernizes to meet California’s aggressive climate goals. Buildings and appliances are at the forefront of climate change as they provide an opportunity to reduce greenhouse gas emissions (GHGs) in the future.

- The Building and Appliance Standards advocacy subprograms will be faced with changes at the California state and Federal level where solutions for ZNE will be merged with GHG metrics in the future. These changes will be integrated into the advocacy subprograms and take effect in the 2022, 2025, 2028 and 2031 Triennial Title 24 Building Code updates.
- DOE is expected to increase its pace on appliance standards adoption and to reverse previous standards or rules that don’t support energy efficiency. This provides the C&S program with the opportunity to support the increased focus on energy efficiency through primary data collection and engagement with other stakeholders. The pace is expected to increase to activity levels greater than under the Obama administration.
- The Reach Code subprogram will continue to provide innovative solutions to jurisdictions requesting ZNE and Building Decarbonization reach codes that will be used to inform the Title24 Building Standards updates. The Planning & Coordination subprogram continues to address some of the market challenges of implementing these progressive building and appliance standards

updates by collaborating with all market actors that will influence new measure development of the future.

2020 Program Accomplishments

The coordinated approach of the six Codes and Standards subprograms created opportunities for crosscutting deliverables to support meeting California's climate goals through the Building and Appliance Standards.

- The Building Code and Standards Advocacy subprogram refined building code measure proposals into Codes and Standards Enhancement (CASE) reports to deliver future savings for the 2022 Title 24 Code cycle.
- The Appliance Standards Advocacy subprogram developed CASE studies for the CEC's Title 20 Appliance Standards rulemakings and participated in several DOE appliance standard rulemakings.
- The Compliance Enhancement subprogram was at the forefront of educating all market actors in 2020 in the adoption of new building and appliance standards by creating new interactive tools, in person and virtual trainings and resources.
- The Compliance Enhancement subprogram simplified and automated the compliance process for the 2019 Title 24 Building Code and Title 20 Appliance Standards through the development of effective trainings and dynamic digital tools that automate and verify compliance for all market actors.
- The Reach Code subprogram supported multiple jurisdictions showing interest in creating reach codes by developing resources and cost-effectiveness studies for residential and commercial sectors to support reach code development. The subprogram continues to work closely with the local governments, obtaining input to ensure the studies meet jurisdiction needs. Opportunities exist to improve communication resources and develop tools that increase the value of the support the subprogram offers to cities.
- The Planning and Coordination subprogram delivered a coordinated approach to C&S building and appliance impacts for internal and external stakeholders on long-term planning, scenario analyses, and modeling climate impacts.

A. SDGE3251 SW-C&S – Compliance Enhancement

Program Description

The Compliance Enhancement (CE) subprogram supports increased compliance with the adopted Building Energy Efficiency Codes and the Appliance Standards. Compliance enhancement and improvement activities complement advocacy work by maximizing verified, persistent savings from C&S activities. The CE subprogram targets market actors throughout the entire compliance chain, providing education, outreach, and technical support and resources to improve compliance with both building and appliance energy standards.

Implemented Strategies

Throughout 2020, the CE subprogram continued to employ a systematic approach to enacting behavior change throughout the building and appliance efficiency supply chains. The three- pronged performance improvement approach addresses the essential elements of behavior change:

- Training to increase awareness and motivation and to provide the skills needed
- Outreach to increase awareness and motivation
- Tools and Resources to empower people to take the desired action

The work accomplished in each area reflects specifically what key market actors told the CE subprogram they want and need in order to improve compliance on building and appliance standards. These tools were designed and completed in close collaboration and approval by the CEC staff.

Challenges/Changes for 2020

The current SDG&E CE subprogram has been successful in reaching a broad audience of builders, developers, engineers, contractors, building inspectors, plans examiners, building officials, architects, program managers, Certified Energy Analysts (CEA) and multiple additional market actors involved in the construction of homes and buildings. As the future of construction evolves to adapt to California’s climate and Zero Net Energy (ZNE) goals, there will be an opportunity for additional stakeholders to be educated in a changing construction landscape. The SDG&E CE subprogram will be ready to adapt to the changing demand as the California Building and Appliance Standards become more stringent between now and key milestones in California’s energy future for 2030 per SB350 (CEC’s Doubling Energy Efficiency Savings) and ZNE for commercial new construction.

2020 Program Accomplishments

In response to the COVID-19 pandemic, SDG&E quickly transitioned all in-person live Standards Essentials courses to the Energy Code Ace virtual training platform. In coordination with the other CA

IOU's, SDG&E facilitated delivery of more than 150 virtual classes to 3,288 students on top of delivering 20 courses in a traditional classroom setting to over 400 students pre-pandemic in SDG&E's service area. Overall, Energy Code Ace achieved a 27% knowledge swing and 97% satisfaction rate after being evaluated. Additionally, Energy Code Ace gained more than 11,000 views of the Code and Coffee dynamic form and modeling demonstrations on the program's YouTube channel.

Due to the changes to in-person conferences and trade shows caused by COVID-19, Energy Code Ace increased emphasis on providing targeted online outreach. The team strengthened strategic partnerships with key industry organizations such as the American Institute of Architects (AIA) California, California Building Officials (CALBO), California Association of Building Energy Consultants (CABEC), and US Green Building Council San Diego (USGBC-San Diego) in order to provide their members with the training and resources targeted specifically to their needs.

The team supported AIA California's new Climate Action efforts by contributing resource links and information for its microsite and developing and providing three webinars. The team also supported CALBO in its efforts to increase virtual training for its members by developing and providing two online courses for its CTI training institute. Additionally, the team supported CEA development with CABEC, developed a webinar and provided it in coordination with BayREN, developed and provided a webinar for USGBC-LA and conducted presentations at approximately 45 online conferences and member meetings. Along with connecting with market actors during virtual events, the program distributed approximately 158 targeted emails to promote our role-based offerings and classes.

In addition to serving as the gateway to training, tools and resources, the EnergyCodeAce.com site also facilitates communication between industry and Energy Code Ace experts. In 2020, the subprogram fielded over 1,800 inquiries from industry stakeholders and provided email and phone call responses to these inquiries. EnergyCodeAce.com's user base and activity continue to grow. At the local level, the CE program has increased its local outreach to market to stakeholders by developing strategies to directly contact specific contractors, retailers, distributors, manufacturers, engineers, building departments, trade associations and others to increase their access to trainings, tools and resources. Also, at a local level in coordination with the SDGE3252 – Reach Codes and SDGE3253 Planning & Coordination subprograms the CE subprogram developed new strategies to educate multiple market actors on compliance strategies and activities for Title 24, Title 20, reach codes and ZNE beginning in 2021.

The IOU Compliance Enhancement team conducted a needs assessment to gain input from a broad swath of CE market actors regarding all Energy Code Ace offerings. On a macro level, results indicated: user satisfaction with the ECA program overall is high; users love the classes but would like to see more basic level content beside the predominate intermediate offerings; a single resource often addressed

multiple needs of multiple audiences providing a force multiply effect to compliance; some users are dissatisfied with their inability to find information on the website when it's needed; and architects, energy consultants, plans examiners and building inspectors are well served while builders and installers require more attention. The CE subprogram began acting on the results by enhancing the Energy Code Ace website search function while also determining how the program will use the needs assessment results to guide future work.

The Program also increased its focus on Title 20 compliance. The team began engaging organizations such as state government agencies with the goal of providing procurement guidelines to help them understand Title 20 and influence their purchasing decisions to include only compliant products. Additionally, the team conducted outreach to prepare industry for new spray sprinkler body standards which became effective in October 2020 and launched a new online pool pump course.

The CE subprogram also supported CABEC's recertification of Certified Energy Analysts (CEAs) for the 2019 building energy code while also helping to establish new CEAs through a new curriculum and mentoring program. Given the favorable results of recent assessments comparing CEA's work with non-CEA's, the IOU's new construction incentive programs will begin requiring that CEAs develop modeling and compliance documentation for incentive applicants going forward. Compliance enhancement subject matter experts supported CASE authors and the Title 24, Part 6 advocacy team with 2022 CASE work by providing implementers' point of view.

Finally, the CE subprogram completed adding all nonresidential certificates of compliance to the Energy Code Ace Virtual Compliance Assistant (VCA) which not only helps people identify and complete the appropriate forms for their specific project, but also verifies compliance along the way and eases plans examiner review. As of December 31, 2020, the VCA had assisted with more than 4,000 nonresidential prescriptive projects. What is more, the Energy Code Ace website now hosts the official CEC compliance forms which helps market actors to realize they could use the VCA and the various helpful resources Energy Code Ace provides to help industry effectively document compliance.

B. SDGE3252 SW-C&S – Reach Codes

Program Description

In addition to state and national building codes, the C&S Program provides technical support to local governments that wish to adopt local energy ordinances (reach codes) that exceed statewide Title 24 minimum EE requirements for new buildings, additions, or alterations. Reach Code (RC) program support for local governments includes research and analysis to establish performance levels and cost effectiveness relative to Title 24 by climate zone, drafting model ordinance templates to encourage regional consistency, assistance for completing and expediting the application process required for approval by the CEC, and

supporting implementation once effective.

Implemented Strategies

Many local jurisdictions have established goals within their Climate Action Plans (CAPs) to reduce energy use and GHG emissions from buildings through adopting and implementing local energy ordinances. Given the changing policy and funding priorities at the state and federal levels, cities and counties are experiencing an increased sense of urgency for local action to meet the statewide goals. This has translated to a greater interest in reach codes as a path to achieve the goals. With reducing GHG emissions as the highest priority, there is a shift in focus from solely reducing energy use, to targeting energy use reductions associated with carbon emissions. This shift has resulted in an increased level of interest in all-electric designs, both at the state and local level.

With adoption of the 2019 Energy Code, an all-electric baseline was created for low rise residential new construction, therefore allowing all-electric designs to comply with and exceed the Energy Code more readily. Changes to the state code created a path for local jurisdictions to accelerate emissions reductions in new construction. Most interested jurisdictions are opting for one of the following options, or a combination of the options applied by building use type:

- Electric Preferred: requires mixed fuel designs to exceed the code and all-electric designs to comply only
- Electric-ready: requires mixed fuel designs to install conduit and or/wiring to enable future conversion to electric equipment
- All-electric: restricts new construction to all-electric designs only

Some SDG&E local jurisdictions are pursuing measure-based reach codes, such as energy efficiency retrofits, solar hot water heating, heat pump water heating or requiring PV systems on nonresidential projects. In addition, many jurisdictions adopted reach codes accelerating the requirements for installing electric vehicle infrastructure and electric vehicle service equipment (EVSE) in new buildings.

For technical support of local jurisdictions, the RC subprogram presented cost- effectiveness studies, consulted on options and opportunities, created a checklist for permit applicants, and reviewed and made recommendations on proposed ordinance structure, triggers and language.

Challenges/Changes for 2021

In 2020, the SDG&E RC subprogram continued to evolve as the demand for reach codes increased across California driven by jurisdictions looking to reach Climate Action Plan goals through progressive reach codes, and as California looks to meet the 2030 SB 350 (Doubling of Energy Efficiency goal) and

2030 ZNE (Zero Net Energy) goals for commercial new construction through innovative ways. Reach codes will be a common path to meet these demands, and the SDG&E RC subprogram will need to innovate to assist jurisdictions and market actors to adapt to this changing reach code landscape. The change to the current RC subprogram will be to scale up efforts to deliver more solutions including education and resources to a growing number of jurisdictions looking to pursue reach codes beyond 2020.

2020 Program Accomplishments

When the 2019 Energy Code became effective on January 1, 2020, multiple jurisdictions showed interest in pursuing reach codes. Throughout 2020, work to support the jurisdictions pursuing reach codes included analysis and report development, technical support, reach code resource accessibility improvements, and other activities. RC Program activities fall into two main categories: 1) Direct technical support – including cost-effectiveness studies, model language, and implementation resources, and the Cost-effectiveness Explorer Tool, and 2) Resources, Communications and Events – including website refresh, News Briefs, Frontrunners, conferences, and webinars.

Direct Technical Support

Cost-effectiveness Studies: The IOUs shared resources to complete the Mid-rise Multifamily New Construction study and began work on several additional studies: High-rise Multifamily New Construction, Detached ADUs (Accessory Dwelling Units), Residential Retrofits and Electrification, Large Offices, Hotel Laundry and Restaurants (including Commercial Kitchen Equipment), Nonresidential Retrofits and Electrification, Replacing space or water heating with heat pump when purchasing PV system, and Battery Storage.

Several reach codes were adopted in 2020 and approved by the Energy Commission based on IOU cost-effectiveness studies. Approved local ordinances may be found on the LocalEnergyCodes.com and Energy Commission websites.

Supporting Documents: In addition to developing new cost-effectiveness reports, the RC program, independently and in collaboration with other organizations, supported reach code adoption by creating supplemental support documents. Beginning from a common core helps to support consistent code language across jurisdictions with similar objectives. Supporting documents completed in 2020 included: Model Ordinance Language, Compliance Checklists, Reach Codes training, CEC Cover Letters, Reach Code Options and a Reach Codes User Guide.

Cost-effectiveness Explorer: The Cost Effectiveness Explorer simplifies the process for jurisdiction staff, allowing them to easily select and view only their jurisdiction-specific, relevant results for specific policy options of interest. Phase 1 of the Explorer launched in October 2020. It allows users to easily access results for their jurisdiction, and format, share or download a report documenting the results.

Resources, Communications and Events

LocalEnergyCodes.com Website Update:

Local interest in reach codes has continued to accelerate throughout 2020, fueled by the desire to decarbonize the building sector. As jurisdictions began expanding the scope of ordinances beyond Title 24, Part 6, they looked to a more diverse community for information. To support improved outreach efforts to remain a trusted resource in this growing area, the Reach Codes Program completed a refresh of the program web site. The refresh included restructuring the content to lead a user through the initial decision-making process, beginning with basic information about reach codes and selecting a “Reach Code Path” from five categories (Building Efficiency/Renewables, Electric Readiness, Energy Plus Water, Information Disclosure and Process Loads). Each “Path” lists several ordinance options, their pros and cons, and associated cost-effectiveness studies and other documentation supporting adoption and implementation.

The Local Ordinance Map on the website is an interactive map of CA that allows users to search geographically or by Reach Code Path. At the individual jurisdiction level, the map provides a summary of the ordinance scope and requirements, and users may download the ordinance and the staff report presented at the public adoption meeting.

In addition to maintaining stakeholder engagement through the website, the team continued publishing the “Reach Codes News Brief” monthly newsletter throughout the year. The News Brief offers insight into the rapidly evolving reach code landscape and highlights “Frontrunner” cities that are leading the way. The program completed seven Frontrunner articles, featuring the Cities of Davis, San Mateo, Santa Cruz, Santa Monica and West Hollywood, and the Counties of Marin and San Mateo.

The RC Program presented and participated in several conferences and held two technical webinars in 2020 including: California Irrigation Institute, Public Works Officers Conference, 2020 SEEC Forum (virtual), Municipal Green Building Conference and Expo (virtual), New Mid-rise Multifamily Cost-effectiveness Study Webinar and Residential Retrofits Cost-effectiveness Study Webinar.

2021 Reach Codes Plans and Activities

Plans in 2021 to support the continued development and adoption of reach codes include:

- Developing new cost-effectiveness studies to support ordinances targeting existing residential and nonresidential building upgrades, storage, and commercial kitchen efficiency and electrification.
- Providing support to jurisdictions, including guidance regarding process, assisting in interpreting study results, drafting and reviewing ordinance documentation, trainings, educational resources and other assistance, as requested.
- Begin work to support the CEC and CARB on 2022 CALGreen updates.

- Begin cost-effectiveness analysis for 2022 code cycle as soon as final rules are adopted and software is available.
- Maintaining and updating the LocalEnergyCodes.com website.
- Continuing to develop the Cost-effectiveness Explorer tool to enable jurisdictions to easily estimate potential impacts of an ordinance in their community.
- Coordinating with other organizations to develop implementation resources, including checklists, training materials and reference documents.
- Publishing a monthly newsletter and completing new “Frontrunner” stories highlighting the jurisdictions with adopted ordinances.
- Attending and presenting at conferences and events, as appropriate.
- Continue and expand social media activity and presence, e.g., Twitter: @ca_codes

C. SDGE3253 SW-C&S – Planning & Coordination

Program Description

The planning element of this subprogram includes long-term planning and scenario analyses, modeling of impacts from potential C&S program activities relative to California policy goals and incentive programs, development of business and implementation plans, responses to CPUC and other data requests, updating the incremental measure costs for C&S measures, and maintenance of a C&S savings database consistent with evaluation protocols.

The coordination element includes internal and external harmonization with other groups. Internal activities have traditionally included collaboration with several departments: a) incentive, training, and demand response programs; b) policy, regulatory, and corporate affairs; and c) emerging technology and product teams. More recently, as building codes have begun to incorporate distributed generation, electric vehicles and batteries, coordination has expanded to strategy integration, distributed generation programs, clean transportation and others involved in grid management.

Implemented Strategies

The integrated Planning and Coordination (PC) subprogram approach of the planning and coordination elements requires managing perspectives, relationships, and expectations of multiple market actors. Codes and standards impact the entire state and most building types, occupancy categories, and related technologies. The PC subprogram requires collaboration with the following stakeholders who either influence or implement codes and standards for buildings and appliances: a) CPUC, CEC, CARB, b) other IOUs, municipal utilities, and utilities in other states, c) national advocates such as National Resources

Defense Council (NRDC), Northwest Energy Efficiency Alliance (NEEA), Sierra Club, American Council for Energy-Efficient Economy (ACEEE), Earthjustice, National Consumer Law Center, Consumer Federation of America, d) representatives of various manufacturing companies and industry groups such as Association of Home Appliance Manufacturers (AHAM), National Electric Manufacturers Association (NEMA), American Heating and Refrigeration Institute (AHRI), American Gas Association (AGA), e) water utilities and local governments, and f) other parts of the compliance improvement supply chain such as building inspectors, Title 24 consultants, Contractor State Licensing Board (CSLB), and others.

Challenges/Changes for 2021

The planning and coordination activities require a strong ability to manage and deliver strategies to meet the ZNE (Zero Net Energy) goals in the future years. This subprogram will continue to adapt as more market actors look to the building and appliance standards to meet California climate goals. These planning and coordination activities will continue to become more important as more stakeholders and market actors begin to drive the innovation needed to deliver aggressive climate and emission reduction goals.

2020 Program Accomplishments

With the current absence of a formal ZNE subprogram, the C&S Planning and Coordination subprogram has taken a lead role for coordinating the various EE and non-EE aspects necessary to effectively support customers and the building industry to meet the state's ZNE goals. The ZNE effort is not only limited to Title 24, but it also supports the California Department of General Services' ZNE goals, schools (California Proposition 39), and the design and construction industry's efforts to meet the various ZNE goals.

In late 2020, CARB and Energy Division approached the statewide codes and standards program IOU members and requested support for the development of proposals to update the electric vehicle infrastructure and electric vehicle supply equipment (EVSE) requirements in CALGreen (Title 24, Part 11) using the CASE report methodology, including cost / benefit analysis. Coordinating with clean transportation team members within SDG&E, and with staff from SCE and PG&E, cost models and supporting information on expanding requirements for electric vehicle infrastructure and EVSE in multifamily and non-residential new construction scenarios for light, medium and heavy-duty vehicles was in development at the close of the year. This project will be completed with the CALGreen adoption by the Building Standards Commission in 2021.

STATEWIDE INTEGRATED DEMAND SIDE MANAGEMENT (IDSMD)

A. SDGE3260 Local-IDSMD-ME&O – Local Marketing (EE)

Program Description:

SDG&E's 2020 IDSMD Marketing, Education and Outreach (ME&O) efforts continued to focus on the benefits of comprehensive DSM programs for residential and small-medium business (SMB) customers. The ongoing objective of local ME&O efforts is to funnel customers from awareness of SDG&E's broad portfolio of IDSMD programs to interest in learning more, and ultimately to participating in relevant programs that best meet their needs. This was accomplished by promoting the increased impact that an integrated approach can have overall, with segmented offers to increase interest in specific, comprehensive programs across SDG&E's energy efficiency and demand response portfolio.

SDG&E developed ME&O strategies, messages, and materials that increased customer exposure to, and understanding of IDSMD programs and provided ongoing education through a variety of social media channels to meet customers where they are and provide high value solutions for their specific needs.

Local IDSMD ME&O activities supported awareness, interest and participation goals primarily through direct outreach and customer engagement, including presentations, events and monthly social media messaging, complemented by partnerships with key third party organizations.

Implemented Strategies

In 2020, SDG&E continued to work with a network of more than 190 business and residential associations, nonprofits and community-based organization (CBO's), known as SDG&E's Energy Solutions Partners (ESP). Many of these organizations are small grass roots agencies serving multicultural/multilingual communities, seniors, veterans, small businesses, trade associations, and area chambers of commerce. These partners helped educate and encourage customer participation in SDG&E's IDSMD programs through various channels including posting information on their websites, email blasts, newsletters and social media sites such as Facebook, Twitter, and Instagram. Additionally, these organizations provided booth space for SDG&E Outreach at their events and hosted educational fairs, where program information was distributed. Due to COVID-19, most in-person events were either canceled, moved to a virtual format or in some instances they were converted to drive-through activities. Additionally, the Outreach team worked closely with the ESP network in providing both virtual and in-person presentations to customers and partner staff on SDG&E's programs and services.

1. Residential Outreach

In order to effectively promote residential IDSMD, the company centered its outreach efforts on social media, newsletters, presentations and events hosted by various partners. These events allowed the

Outreach team to provide program information and materials to its partners and their constituents. Due to COVID-19, these types of CBO activities quickly pivoted to virtual or drive-through formats. The Outreach team also collaborated with partners by providing custom virtual presentations and training for their employees and members, where attendees could ask questions and receive guidance. Discussion topics included information on My Account, IDSM programs and services, SDG&E's Marketplace and pricing plans, for distribution during drive-through events. Additionally, ongoing initiatives around safety, emergency and wildfire preparedness including SDG&E's Wildfire Safety Fair drive-through events provided unique opportunities to promote energy related solutions to our residential customers. Throughout the year, the ESP network distributed online and social media messaging that included information on behavioral tips, residential rebates and incentives, Energy Savings Assistance, Cool Zones, My Account tools, energy use alerts and SDG&E's COVID-19 response and updates.

In 2020, SDG&E worked closely with the Chula Vista Community Collaborative (CVCC). This organization is located in southern portion San Diego County and is dedicated to enhancing community partnerships to develop and implement coordinated strategies and systems for future generations. The CVCC was an integral partner that communicated company information and initiatives throughout the year. These activities were provided in English and Spanish in the form of events, presentations and online messaging, such as social media posts and newsletters. SDG&E's Outreach team held a virtual Residential Programs and Services presentation on May 21st, which provided information to participants that work with the Chula Vista community, to assist them with resources and educational programs. Attendees were provided details on conservation tips, tools, such as MyAccount and alerts, and program information on energy efficiency. Throughout the year, the CVCC also helped promote programs and services through Wellness Call Campaigns, drive-through events and by distributing program material at their Family Resource Centers.

SDG&E continued its successful outreach partnership with San Diego Oasis, which promotes healthy aging through lifelong learning, active lifestyles, and volunteer engagement to the senior community. Throughout the year, SDG&E worked with San Diego Oasis by providing the latest program materials and virtual presentations on residential Time-of-Use (TOU) and energy efficiency programs for anyone that visited their facility. Attendees also received information on available tools through My Account and were able to ask questions to help evaluate their choices and make an informed decision on TOU pricing plans. Due to COVID-19, the Outreach team provided a virtual training to San Diego Oasis employees and members to ensure consistent education when some of their members needed it most.

In addition to partner activities, SDG&E's Outreach team conducted five virtual presentations to educate the Energy Solutions Partners about Residential Customer Programs & Services – including Energy

Efficiency programs and rebates for smart thermostats, SDG&E's COVID-19 Response, Public Safety Power Shutoffs, Community Resource Centers and scams. These events were held in late 2020 and were well attended and received. The last of these events included a special recognition to the partners for their efforts throughout this challenging year.

2. Business Marketing & Outreach

The outreach team has several key business and trade associations, chambers, and local government partners that are a part of the ESP network. The partner network helped spread information to local business customers about available rebates and incentive programs including the Business Energy Solutions program, Energy Efficiency Business Rebates, smart thermostats, the Capacity Bidding and Base Interruptible Program, On-Bill Financing and My Account tools and alerts.

In February 2020 SDG&E collaborated with the International Facilities Managers' Association (IFMA) San Diego Chapter. IFMA is a volunteer organization dedicated to enhancing the performance and professional growth of its members through networking, education and promoting the practice of facilities management. SDG&E provided an educational in-person course at the Energy Innovation Center (EIC) to the organization's members. Topics included changes and important updates to Codes and Standards, available rebates and incentives, Business Energy Assistance, Building Envelope Program, on-bill financing, as well as My Account tools and alerts. Attendees were also encouraged to enroll in the many no-cost seminars available at the EIC.

Additionally, in 2020, SDG&E collaborated with the South County Economic Development Council (EDC) who promotes education and encourages economic development in the South San Diego County Region. Of the different activities with the South County EDC, SDG&E presented to a large group of members on various company programs and services including energy efficiency, customer assistance programs, tools, and available resources to help customers learn about IDSM programs, and the company's COVID-19 response.

SDG&E continued its partnership with The Balboa Park Cultural Partnership (BPCP). BPCP leveraged a diverse array of partners, to achieve the core objectives of advancing sustainability in literacy, practice, and leadership. SDG&E supported BPCP efforts to expand exposure of energy efficiency, demand response, distributed generation, clean technology, and electric/water conservation. BPCP continued to be an exemplary representative of IDSM. Building energy audits were conducted by the SDG&E Comprehensive Audit Program for the Japanese Friendship Garden, Casa de Balboa, Timken Museum of Art, The Old Globe and Spanish Village. In addition, BPCP worked with the Park's institutions to submit to the USGBC an application for LEED for Communities certification. At yearend, BPCP was awaiting notification of the certification. The BPCP partnership ended as of December 31, 2020.

For the past 15 years SDG&E has held its annual Energy Showcase event recognizing selected customers as "Excellence in Energy Leadership" winners for implementing comprehensive energy and sustainable solutions helping them to be more cost effective and energy efficient. Due to the COVID-19 pandemic, SDG&E chose to re-imagine the event and created a "Showcase in a Box". This innovative idea provided each winner with customized video showcasing their achievement, media templates for each winner to publicize their achievement, congratulatory messages from SDG&E executive leadership and the Excellence in Energy Leadership Award. SDG&E recognized the winners through SDG&E social media accounts and a published press release boosting their exposure to peers and local media outlets.

The Excellence in Energy Leadership award continued to recognize customers across the five sectors in the SDG&E business plan: commercial, industrial, residential, public, and agricultural. The award provided an opportunity to recognize customers, projects, partnerships, and collaborative efforts that have an impact on our region but may not be tied to a specific energy efficiency project. The six 2020 Excellence in Energy Leadership winners are:

Bartell Hotels: This local hotel group is always looking for energy-savings opportunities. Its properties include Humphrey's Half Moon Inn, Best Western Island Palms, Hilton San Diego Airport, Holiday Inn Bayside, Pacific Terrace Hotel, Days Inn Mission Valley, Dana Inn Marina, and the Sheraton La Jolla. Through SDG&E's programs, Bartell has made a host of energy efficiency improvements, including upgrading its HVAC systems and implementing energy management and controls at several hotel locations. As a result, the company has achieved a 40% reduction in energy costs and is also an active participant in the Port of San Diego's Climate Action Plan.

MC Properties: This local company provides not just affordable, but also energy-efficient housing for income-qualified military and higher education students. On a set path toward Zero Net Energy (ZNE), it has incorporated many sustainable elements, including rooftop solar water heating systems, high-efficiency boilers, kitchen and restroom faucet aerators, low flow showerheads and LED lighting.

San Diego Habitat for Humanity: This local nonprofit organization builds homes to Energy Star® standards throughout San Diego County for eligible families in need of affordable housing. Technologies it has adopted include solar energy, energy-efficient lighting and electric vehicle charging stations. Currently, Habitat for Humanity is building eleven energy-efficient homes in the Logan Heights area.

City of La Mesa: As part of its Climate Action Plan, the City of La Mesa engages and educates both its residents and businesses on energy and water efficiency. The city promotes LEED® standards for all buildings and developments, and it incorporated LED lighting and an infrared thermometer to identify energy waste hotspots. One of the city's most notable accomplishments is reducing greenhouse gas emissions by 65% by transitioning its fleet to renewable diesel. Additionally, La Mesa developed a DIY

energy audit toolkit, which inspired the County of San Diego to do the same.

Palomar Community College District: The Zero Net Energy (ZNE) Maintenance & Operations (M&O) building at Palomar College's San Marcos campus demonstrates what can be achieved when aggressive sustainability goals are set. The campus incorporated low flow irrigation, rainwater capture systems, daylighting and thermal chimneys. The college also actively promoted sustainable design by presenting at conferences and hosting tours of the new M&O building for other colleges and design teams.

Viasat: This Carlsbad-based satellite internet and defense communication firm has maintained a laser focus on energy efficient design for its campus facilities. It earned three LEED® Gold certifications and has incorporated a Certified Environmental Management System, LED lighting, cool roof technology, high-efficiency boilers, and HVAC system, as well as a fleet of electric golf carts at their new east campus.

3. Awareness Campaigns and Targeted ME&O

In 2020, SDG&E utilized its Energy Solutions Partner network to assist with targeted awareness campaigns to customers. The San Diego County Flower and Plant Association promoted the new HVAC rebates and variable speed drives to their members via eNewsletters. The Gaslamp Quarter Business Association promoted general rebates as well as specific kitchen equipment rebates to their constituents throughout the year. And the International Facilities Managers' Association (IFMA) promoted the Energy Innovation Center's (EIC) seminars and rebates in their social media and eNewsletters, which specifically highlighted information on business thermostat rebates.

4. Commercial IDSM

Decision 18-05-041, directed SDG&E to solicit third parties to design, implement, and test various strategies for integrating demand response capability with existing energy efficiency activities. In 2020, SDG&E continued to test various strategies. The completed projects will include a final report that will cover various topics including but not limited to identifying challenges and barriers to the customer segment, energy savings achieved, and demand response energy reduction. The program utilizes four contractors that provide project management support, energy efficient HVAC and Lighting upgrades and controls, phase change material technology, and energy efficient transformers and battery energy storage systems and controls. There were three projects selected to participate.

In 2020, the three installation contractors were selected. In addition, three projects were identified and selected to participate in the program based on audits completed through the Comprehensive Audit Program. The three projects are currently in various stages of installation. Due to COVID-19, some equipment orders were delayed. Final reports are expected in Q2 2021.

Challenges/Changes for 2021

The SDG&E Energy Solutions Partner Network will remain an integral part of the company's marketing and outreach efforts. In 2021, this network will continue to be instrumental in educating customers about program and service offerings through presentations, events and targeted social media efforts. Due to the many challenges and restrictions caused by COVID-19, the 2021 outreach efforts will continue to be done with virtual presentations or drive-through events. SDG&E Outreach will continue to collaborate with partners to ensure customers remain informed about energy efficiency programs and services available.

As SDG&E continues to transition the majority of the energy efficiency programs and marketing, education and outreach (ME&O) funds to third party implementors, SDG&E's challenge will be to ensure its outreach and marketing efforts are in line with SDG&E's program offerings. This will also provide a challenge to how SDG&E ensures its customers are educated about all program offerings. In addition, no new Commercial IDSM participants will be added as this activity will move to third party Implementors.

2020 Program Accomplishments

Over 190 Energy Solutions Partners actively collaborated with SDG&E reaching residential and business customers with integrated energy related information through multiple platforms of engagement resulting in over 75 presentations and booth event activities reaching over 2,000 people. Together the company and partner network posted over 140 IDSM related social media and online activities reaching over 348,000 people. The partners were presented with information on how they directly and indirectly contributed to SDG&E program participation.

B. SDGE3261 Local-IDSM-ME&O – Behavioral Programs (EE)

Program Description

The purpose of the Local-IDSM-ME&O Behavioral (or "Home Energy Report (HER)") program is to increase customer awareness of their energy use and motivate them to take actions, which can include usage-based or equipment-based changes in behaviors, as well as increased participation in existing and future energy efficiency or demand response programs.

This program leverages comparative energy use reports delivered to residential customers by U.S. Mail, email, web portal, or any combination of the three channels, to achieve greater customer awareness and energy savings. The provided information may include the following:

- A normative comparison contextualizing a household's energy use against that of a set of "neighbors" with similar attributes
- A personal comparison showing the household its energy use over time

- Energy efficiency and demand response recommendations comprised of tips and program promotions

This program is also leveraged to deliver integrated energy efficiency and demand response program offers to the participating customers. Traditional economic models are based on price and information to drive rational choice, yet customers are still not adopting energy efficiency and demand response when it is clear they can save money. The theory underlying comparative energy usage programs is that by providing customers information about their behavior through a comparison of their household's energy use to that of similar households, along with relevant tips and offers, customers will modify behaviors and undertake actions and/or make energy efficient product purchases that result in energy savings. This program helps address the barrier that prevents customers from acting even when it makes economic sense through the use of behavioral components such as feedback, social approval and goal setting.

Implemented Strategies

The HER program successfully reached the designated customer base in the deployment of the Home Energy Report expansion, for a total of approximately 800,000 auto-enrollments. Program results include electricity and natural gas savings and serves as an entry point to additional services, including an online audit.

SDG&E collaborated with its vendor to market the online audit to allow customers to receive energy saving recommendations. Additionally, the online audit enhances the Home Energy Report recipients with a more relevant neighbor comparison. The platform provides a number of services including neighbor comparison, advanced metering data, additional recommendations and tips, the ability to create plans on what they can do to save, the ability to view their home energy usage in more detail, receive additional information on their home profile, and participate in the Points and Rewards program. The Points & Rewards component of the platform awards customers points when energy is saved or when an energy efficient action is recorded in the portal. Customers redeem their earned points for gift cards to a variety of retailers. The Points and Rewards component of the platform is available to all SDG&E residential customers.

In 2020, the program launched bill forecast alerts to more than 500,000 electric-only customers to proactively learn about current usage and take immediate action to reduce their use.

Additionally, the program launched a Target Rank Experience allowing recipients a view of their rankings among similar homes. The Home Energy Report comparison module displaying the term neighbor has mixed responses from recipients and resulted in some customer satisfaction issues. In 2019, the module was updated to display a comparison to similar homes.

Challenges/Changes for 2021

Changes for 2021 will include Behavioral Demand Response offering to customers to enable them to take steps to reduce their use during days with expected high demand.

The Customer Points & Rewards feature on the vendor portal will no longer be available in 2021.

Program Accomplishments

During the 2020 program year, the number of Home Energy Report recipients reached more than 800,000 and maintained a very low opt out rate. Electronic report open rates ranged in the 50% range, beating the national average. The number of first-time web portal visitors, both recipients and non-recipients reached more than 7,100 in 2020 resulting in more than 26,000 web users who viewed their usage, earned points and rewards and/or completed an energy audit.

Enrollments in Points and Rewards increased during 2020, to just under 10,000 customers resulting in an overall total of more than 180,000,000 awarded points.

C. SDGE3282 SW-IDSMS – IDSMS

Program Description

The California Energy Efficiency Strategic Plan ("Strategic Plan") recognizes the integration of demand-side management (DSM) options, including energy efficiency (EE), demand response (DR), and distributed generation (DG), as fundamental to achieving California's strategic energy goals. To support this initiative, the IOUs identified integrated demand-side management (IDSMS) as an important strategic DSM policy priority, and proposed a series of activities, pilots, and other programs in response to the Strategic Plan's DSM Coordination and Integration Strategy. An IOU and Energy Division Statewide IDSMS Task Force was formed in 2010 and continued coordinating statewide activities that promote the strategies identified in the Strategic Plan and the eight integration directives in California Public Utilities Commission (CPUC or Commission) Decision (D.) 09-09-047. SCE was designated the Statewide IDSMS Lead and continued in that role.

In 2018, CPUC D.18-25-041 repurposed IDSMS funds to focus on the limited integration of EE-DR by providing requirements and general policy principles for Program Administrators (PAs). Simultaneously, the IOUs began the process of soliciting third party implemented programs to meet their 60% outsourcing threshold by 2022. During the ramp-up of third party activities in 2020, the IOUs have utilized various strategies to begin deploying the repurposed IDSMS funds. This section covers new or anticipated activities and includes a summary of historical projects and programs from historical directives.

Repurposed IDSM Funding Strategies

In 2018, the IOUs began the two-stage solicitation process for programs to be designed, delivered, and implemented by Third Parties. The process entailed a Request for Abstract followed by a Request for Proposal and concluded with a final selection of third party-implemented programs. The IOU solicitations included elements of IDSM, which underwent similar but varying processes. Due to variations among the IOUs in the scope, launch timing, sector coverage, and approach of their solicitations, each IOU ended 2020 at varying stages of the solicitation process, which influenced the status of IDSM in their portfolios. Additionally, each IOU may have legacy or ongoing IDSM activities in their portfolio.

Historical IDSM Activity Conclusions and Highlights

This section describes various activities associated with historical IDSM directives, if relevant, and highlights historical activities from previous reporting structures as needed. The IOUs have updated the reporting template to better reflect EE and DR integration activities.

Directives 1 and 2: Cost-Effectiveness and EM&V

Efforts on integrating cost-effectiveness and EM&V methodologies are being addressed in the Integrated Distributed Energy Resources (IDER) proceeding.⁵

In 2020, the IOUs met with CPUC staff to discuss four IDSM studies that were proposed in the EM&V Plan to ensure that these studies did not overlap with any other statewide research efforts. The studies discussed were:

- Statewide Effectiveness of IDSM ME&O Efforts
- Statewide Interactive Effects of IDSM Projects Study
- IDSM & EE+DR Cost Effective Methodology
- IDSM & EE+DR Load Impact Methodology

For the cost-effectiveness studies (#3 and #4), the IOUs proposed that it might be better for the CPUC to lead those studies since they overlap with the Potential & Goals study. For the other two studies, the IOUs decided to prioritize the ME&O process evaluation (#1). But after some internal investigation, this study may no longer be useful given the lack of IDSM ME&O activities and the move to third party implementation.

⁵ Rulemaking (R.) 14-10-003, Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning and Evaluation of Integrated Distributed Energy Resources.

Directive 3: Integrated Emerging Technologies

The Statewide IDSM team tracked multiple integrated emerging technologies that have some combination of EE, DR, and/or renewable self-generation capabilities. The team reviewed various programs, projects, IDSM Pilots, and activities to identify integration efforts and opportunities, and to develop best practices.

Directive 4: Integrated Audits

The Statewide IDSM Task Force continued to coordinate the delivery of a consistent online integrated audit tool that works with each IOU interface and educates residential and small-to-medium business customers on managing their energy usage and costs. The IOUs anticipate that these activities may diminish as IDSM funds are transitioned to meet the new IDSM objectives.

Directive 5: Integrated Pilots, Programs, and Activities

The Task Force regularly reviews and tracks the results of various programs, IDSM Pilots, and other activities, identifies and promotes integration opportunities, and tracks projects where integrated efforts are underway to identify and develop best practices.

Directive 6: Regular Reports

The Statewide IDSM Task Force held regular coordination phone calls to continue ensuring alignment across the state and plans to expand beyond ad-hoc engagement as new IDSM activities ramp up. As noted in the 2019 EE Annual Report, IDSM has discontinued submitting quarterly reports and now provides updates in the EE Annual Report.

Directive 7: Internal Teams

In compliance with this directive, the IOUs have developed internal integration teams that meet monthly or on an as-needed basis with IOU staff from the EE, DR, DG/CSI, and Energy Savings Assistance Programs.

Directive 8: Integrated Marketing

Historically, the Statewide IDSM Task Force tracked, reported, and shared best practices related to local integrated marketing campaigns for residential and business customers. The IOUs anticipate that these activities may decline as IDSM funds are transitioned to meet the new IDSM objectives and may be replaced by integrated efforts associated with new third party implemented programs or other relevant programs, as needed.

Challenges/Changes for 2021

The Statewide IDSM program closed on December 31, 2020.

2020 Program Accomplishments

IDSM highlights specific to SDG&E are featured below. Additional information can be found within the specific program write-ups.

Plug Load and Appliance Program (PLA):

The PLA Program deployed various marketing campaigns to increase customer participation. The smart thermostat measures were promoted during the holiday season as a reminder for customers to take advantage of this rebate as it ended on December 31, 2020.

Integrated Emerging Technologies:

The ET program initiated two projects supporting the PLA program. One project evaluated the EE and DR potentials of an interactive energy monitoring device that provides consistent reminders of the Time of Use (TOU) time periods for customers to help reduce usage during peak times and participate in DR events. The second project addressed both the technology and population aspects to targeting continued EE and DR programs on plug load devices, to develop a technology roadmap and strategies directed towards implementation over the very near term as well as an extended 5-10 year timeline. In addition, SDG&E completed the Statewide PLA Roadmap project with CalPlug, and the final report was published to the ETCC website for public sharing.

Behavioral Programs:

In 2020, Home Energy Reports continued to be sent to SDG&E residential customers. Refer to SDGE3261 Local-IDSM-ME&O – Behavioral Programs section for more details.

Energy Showcase:

For the past 15 years, SDG&E has held the annual Energy Showcase event recognizing selected customers as "Excellence in Energy Leadership" winners for implementing comprehensive energy and sustainable solutions helping them to be more cost effective and energy efficient. Refer to SDGE3260 Local-IDSM-ME&O – Local Marketing section for more details.

Outreach:

In 2020, SDG&E continued to work with a network of more than 190 business and residential associations, nonprofits and community-based organization (CBO's), known as SDG&E's Energy Solutions Partners (ESP). Refer to SDGE3260 Local-IDSM-ME&O – Local Marketing section for more details.

Commercial IDSM:

Decision 18-05-041, directed SDG&E to solicit third parties to design, implement, and test various strategies for integrating demand response capability with existing energy efficiency activities. In 2020, SDG&E continued to test various strategies. The projects will include a final report that will cover various topics including but not limited to identifying challenges and barriers to the customer segment, energy savings achieved, and demand response energy reduction. The program utilizes four contractors that provide project management support, energy efficient HVAC and Lighting upgrades and controls, phase change material technology, and energy efficient transformers and battery energy storage systems and controls. In 2020, there were three projects selected to participate in the program based on audits completed through the Comprehensive Audit Program. The three projects are currently in various stages of installation. Due to COVID-19, some equipment orders were delayed. Final reports are expected in Q3 2021.

STATEWIDE WORKFORCE EDUCATION & TRAINING (WE&T)

A. SDGE3254 SW-WE&T – Integrated Energy Education Training (IEET)

Program Description

The Workforce, Education & Training (WE&T) IEET Subprogram focuses on skills and market development trainings, technical consultations, outreach events, and building performance tool loans. IEET is composed of specific market segments including commercial, and residential sectors. There are two components to IEET; Technical Upskill and Core Energy Education Collaboration (CEEC). Technical Upskill provides training courses, seminars, workshops, clean energy technology demonstrations, equipment efficiency testing, interactive training exhibits, and lectures to promote industry trends and developments for advancing energy efficiency as a professional discipline. Technical Upskill is tailored towards people in a job/career, seeking energy focused upskilling. CEEC is an initiative to reach training organizations with the goal of forming strategic partnerships to reach a broader range of the workforce. The energy efficiency curriculum is infused or added as a stand-alone option to promote the development for advancing energy efficiency as a professional discipline. CEEC is for people on a chosen educational track towards a job/career or a re-training for those who have identified an energy career path.

Implemented Strategies

SDG&E's WE&T Program offers certification trainings and certificate programs through exam prep workshops in various formats such as online, classroom, and field training. The Building Science Principles, Building Operator Certification, North American Technician for Excellence, Certified Energy Manager and the Home Energy Rating System are examples of exam prep trainings that were offered in 2020.

SDG&E offered Home Energy Rating System certification courses to home performance professionals that provided an overview of the California Home Energy Rating System (HERS) Program. Students received an overview of the virtual Field Verification, and Diagnostic Testing Rater certification process and learned the importance of the Codes and Standards (C&S) that define the California HERS Program. This course also teaches students important energy fundamentals and provides an overview of HVAC systems.

SDG&E continued to offer trainings, in-person during Q1 only, and exclusively online after the stay-at-home order, customized for Trade Professionals that provided an in-depth understanding of available utility incentive and rebate programs. The trainings offer assistance on the energy efficiency project submittal process and incentive payment requirements.

SDG&E continued its partnership with the Center for Sustainable Energy (CSE) to offer a homeowner webinar that provided a broad overview of adopting energy efficiency and solar. WE&T

program managers worked with SDG&E's Customer Generation team to provide time-of-use and interconnectivity information during the webinar. A comprehensive homeowner series was also offered that addressed specific billing questions, the benefits of installing energy efficient equipment and learning how to correctly size a solar system, creating an integrated whole home project strategy.

SDG&E continued to collaborate with the National Electrical Contractors Association (NECA) to offer Title 24 C&S trainings. Coordination with multiple city jurisdictions allowed a broader reach to educate audiences on the upcoming changes in the code. These groups also help promote other types of educational trainings to their members and provide feedback when new energy efficiency trainings are of interest or are needed for their members.

Multifamily operations and maintenance trainings were offered to specifically target the property management of multifamily apartment complexes. Property management staff was trained on how to use and maintain the operations and maintenance binder documents, benchmarking to monitor building energy use, identifying systems and equipment that needs commissioning, and how to identify opportunities to reduce energy use including how to implement system and equipment updates. Property management staff also received hands-on experience with common systems, learning how to review operating conditions and adjust set point controls to maximize efficiency. They also learned to identify the performance of building equipment and established a process for preventive maintenance to ensure maximum system performance.

SDG&E provided a comprehensive training for realtors, appraisers, inspectors, and lenders. Trainings were also offered to educate real estate professionals in this industry on the value of energy efficiency when buying and selling a home in the residential market. SDG&E partnered with workforce development organizations to target disadvantaged workers. One workforce organization offered hands-on trainings to their students between the ages of 18 to 26 to maintain SDG&E's Energy Innovation Center demonstration garden. Program Advisors collaborated with organizations to recruit disadvantaged workers to attend certification trainings for the Building Operator Certification training.

Challenges/Changes 2021

To expand the reach of training classes, SDG&E began offering Webinar/On-Demand options earlier in the year. A few months later, due to the COVID-19 pandemic and subsequent stay at home orders, training classes were exclusively offered virtually. This was a change and a challenge for some trainers/speakers; some were fearful of the technology and others were simply used to delivering in-person training and wanted to delay until conditions improved. As the months went by, speakers adapted to the change and became more comfortable with the technology. Most classes, with the exception of a few hands-on or certification classes, were offered virtually in 2020. With this pivot to virtual training, program managers developed a virtual strategy for 2021. The strategy incorporates best practices, includes

interviews from key stakeholders such as students and speakers, and includes lessons learned from the different virtual platforms used over the course of 2020. The program anticipates the continuation of virtual trainings in 2021.

Another program adaption was on-demand training. This was identified as a solution for some training classes for students who were not able to attend live scheduled webinars. Program managers worked with trainers to identify the best classes suited for on-demand and worked with the trainers/speakers to develop it. This option allowed students to view training content at their convenience. In 2021, more on-demand produced recordings will be offered.

Not all training was suited for online conversion. Some certification testing, hands-on lab experience, and food service equipment demos were all deemed unsuitable for virtual training due to the hands-on aspect to the training. In addition, energy efficient tools from the Resource Lending Library were put on hold due to the stay-at-home order. Due to continued uncertainty for 2021, these areas will continue to be a challenge.

2020 Program Accomplishments

On-demand offerings were coordinated for the Trade Professional network which gave them more convenience over when they could view the training. In addition, creating on-demand offerings of some of the live webinars allowed students additional convenience and control if the live webinar didn't fit their schedule. Over 100 trainings were hosted for Trade Professionals to participate in SDG&E's customer rebate and incentive programs. More than five certification workshops were offered through Technical Upskill. Energy Codes and Standards classes were promoted via WE&T marketing efforts. An estimated 10 trainings were offered to educate residential real estate professionals on the value of energy efficiency. Multifamily operations and maintenance trainings were offered to specifically target property management of multifamily apartment complexes. Over 275 residential customers participated in the Home Energy Series. More than 7,000 students attended Technical Upskill trainings and four collaborations were brokered as part of Core Energy Education Collaboration.

B. SDGE3255 SW-WE&T – Career Connections

Program Description

The WE&T Career Connections Subprogram seeks to promote energy efficiency and energy/green sector career awareness along all educational paths (levels) from K-12 to post-secondary. The Career Connections Subprogram achieves its energy efficiency educational goals by facilitating energy efficiency strategic planning and educational programming at all educational paths. The subprogram infuses the energy efficiency, demand response, and relevant career messages through interactive curricula and educational materials, student assemblies and teacher workshops. As appropriate, curricula and educational

materials are correlated to the California Department of Education's content standards.

Implemented Strategies

SDG&E helps engage the next generation of energy-related workers through supporting energy education and outreach. Students learn through online, hands-on and project-based activities that include the Water-Energy Nexus and why it matters, how solar energy is made, create working circuits, and more. Educators are also trained on how to incorporate energy education lessons to enhance their existing curriculum.

Challenges/Changes for 2021

SDG&E worked with PG&E and other IOU's to launch a solicitation for third parties in 2020. The current program will shut down by mid-2021 and SDG&E will support activities to ensure a successful transition. Due to the COVID-19 pandemic and subsequent stay at home orders, schools were shut down and in-person teaching halted. Schools struggled to create a plan on how to resume education, which also challenged the Career Connections Subprogram to determine how to resume energy efficiency education. Through virtual learning, online content was created to offer teachers and students a diverse and versatile set of services designed to suit their needs. The tours offered at SDG&E's Energy Innovation Center were also halted, which resulted in a reduction in tours.

2020 Program Accomplishments

Approximately 10,000 students were reached at K-12 schools. Over 70% of the schools participating are Title-1, supporting opportunities for disadvantaged students. During the first quarter of 2020, approximately 10 student events were held at SDG&E's Energy Innovation Center, bringing students onsite to learn about energy efficiency and green career awareness.

THIRD PARTY PROGRAMS (PRE-2019 PROGRAMS)

A. SDGE3226 (3P) SW-COM Direct Install

Program Description

The Direct Install Program delivers no cost or discounted energy efficiency hardware retrofits through installation contractors to reduce peak demand and energy consumption for small and mid-sized non-residential customers. The program is designed to increase the adoption of energy efficient measures by small, mid-sized, and hard-to-reach, non-residential customers by offering an energy efficiency energy audit as well as energy efficiency equipment and installation at no cost or at a discounted price.

Implemented Strategies

SDG&E extended its contracts with the program's third-party implementers in 2020 and continued the initiative offering water and energy instant rebates through the partnership with Moulton Niguel Water District and the San Diego County Water Authority.

An email campaign and direct mail piece were sent out in the first quarter of 2020 to promote this offering.

A targeted outreach approach to hard-to-reach customers in the City of San Ysidro, planned in conjunction with the City of San Diego's Storefront Improvement Program, was scheduled to kick off on March 16th with a community event. The event was cancelled due to the growing concerns with COVID-19. The targeted outreach was reinstated in October but without any community events and marketing. Instead, postcards were mailed out to those customers.

A promotion postcard offering increased incentives on certain lighting fixture retrofits was mailed out to qualifying direct install customers in July and an additional yearend promotion on increased incentives via digital ads and radio spots was initiated in early November.

Challenges/Changes for 2021

A continued challenge for the Direct Install Program is that customers are still resistant to commit to the installation of measures with a co-pay and opt for the no-cost measures. In response to the COVID-19 global pandemic and in the interest of SDG&E employee, customer and contractor health and safety, on March 20, 2020 program activities requiring face-to-face interaction was suspended. This impact can be seen in lower program participation in 2020 than what was forecasted for the year.

The Direct Install Program will continue into 2021 with one third party implementer instead of three and focus only on serving the Public Sector as the Statewide Public Sector solicitation is underway. All other small to mid-size business customers will be served through the new Small Commercial and Large Commercial third party programs.

2020 Program Accomplishments

In 2020 the Direct Install Program implementers successfully serviced over approximately 1,500 small and mid-size business customers with the installation of energy efficiency projects, while also achieving a consistently high level of customer satisfaction.

B. SDGE3279 (3P) Res-Manufactured Mobile Home

Program Description

The residential Comprehensive Manufactured and Mobile Home (CMHP) Program is designed to complement SDG&E's residential energy efficiency portfolio by providing energy efficiency measures on a comprehensive basis to manufactured and mobile home customers within its service territory. An additional objective of the program is to heighten energy efficiency awareness with property owners, property managers and tenants. This is a targeted market that is not reached by statewide mass market programs but has shown rich potential for cost effective energy and demand savings. The residential CMHP Program offers a variety of incentives to motivate property owners and managers to install energy efficiency products. Furthermore, these products can be installed in both common areas and dwelling units of the complexes or parks.

Implemented Strategies

The CMHP Program continues to be successfully implemented as a one-stop-shop customer approach serving manufactured and mobile home customers. CMHP program participants are screened for ESA program eligibility before CMHP program enrollment, providing the highest levels of comprehensiveness, customer satisfaction, and program delivery efficiency. Many CMHP program participants are considered to be within hard-to-reach and disadvantaged customer demographics within the SDG&E service territory and new for 2020, the program captured and reported these statistics on monthly invoices.

The program implemented changes in 2020 to increase the program's cost effectiveness, such as eliminating measures with lower cost effectiveness and working with the program contractor to identify measures targeted for certain climate zones. For example, all of the HVAC measures in Climate Zone 7 were discontinued from the program as this climate zone simply did not yield deep enough savings to offer measures under the downstream direct install delivery channel that this program operated. By operating via a direct install delivery mechanism, the program yielded little to no cost for customer participation which allowed SDG&E to achieve the program's goal of maximizing ratepayer dollars while incentivizing the installation of energy efficient products within the residential manufactured-mobile home market segment specific to the needs of this unique market segment.

Challenges for 2020/Changes for 2021

In response to the COVID-19 pandemic and in the interest of SDG&E employee, customer and contractor health and safety, on March 20, 2020 program activities requiring face-to-face interaction were suspended. Program services resumed in Q3 of 2020 and demand was strong for the program in the mobile manufactured housing segment due to customers being home more than pre-pandemic conditions and available for program participation.

The Comprehensive Mobile Home Program closed December 31, 2020. This segment will be served by the new third party Residential Zero Net Energy Transformation (RZNET) Program in 2021.

2020 Program Accomplishments:

In 2020 CMHP reached approximately over 2,000 mobile-manufactured homes. Furthermore, by approaching the program's offerings from a cost-effect centric outlook, this allowed SDG&E to achieve the program goal of maximizing ratepayer dollars while incentivizing the installation of energy efficient products. These efforts resulted in the program successfully delivering a comprehensive mix of offerings ranging from Smart Programmable Thermostats to AC Diagnostics, to Low flow showerheads to name a few. All of the efforts made throughout 2020 assisted the program's participation, helped to raise program awareness with qualifying customers and further promoted the benefits of energy efficiency across SDG&E'S service territory.

C. SDGE3280 (3P) Innovative Designs for Energy Efficiency Activities (IDEEA) 365

Program Description

SDG&E, along with the other California IOUs, established a cross-cutting third party solicitation program called the IDEEA365 Program that promotes the "rolling" solicitation concept and is focused on new innovative programs. The program was designed to allow for continuous introduction of innovative ideas and technologies into the energy efficiency portfolio by drawing from the skill, experience and creativity of the energy efficiency community and third-party implementers. The IDEEA365 Program creates a mechanism for competitive, year-round solicitations for new third party resource programs that produce cost effective energy savings and demand reduction, or non-resource programs strongly tied to customer initiation of energy savings opportunities offered by SDG&E's core programs.

Implemented Strategies

D.16-08-019 clarified that the new third party programs must be designed and presented to the utility program administrator by the third party; utilities may consult and collaborate, using their expertise, on the ultimate program design implemented by the third-party. In 2018, SDG&E began the implementation of these solicitations, which included setting up its EE Procurement Review Group (PRG),

hiring of Independent Evaluators (IE) and developing best practices with other utilities. In 2020 SDG&E continued to develop and refine internal processes and procedures, utilizing supply management best practices and an experienced team to ensure that all the guidelines and complex requirements of the Commission and the Energy Efficiency Procurement Review Group were met.

Challenges/Changes for 2021

SDG&E expects to execute contracts for its Statewide Plug Load and Appliance (PLA) program, Public Sector – Federal program and Public Sector – K-12 program by the end of 2021. Solicitations that will be released to the market in 2021 include Local Governments, Agriculture, Industrial, Industrial-Port, Behavioral, Statewide Downstream Residential HVAC and the re-launch of the Single-Family solicitation. Executed contracts for these seven solicitations are expected by December 31, 2022 to comply with the 60% portfolio outsourcing requirement.

2020 Program Accomplishments

SDG&E continued to develop and launch third party solicitations, in accordance and compliance with Commission direction. Engagement with the Energy Efficiency Procurement Review Group and pool of Independent Evaluators to monitor the solicitation process and provide input and feedback also continued. The collaboration resulted in best practices and lessons learned that will continue to guide and improve the third party solicitation process into 2021.

In 2020, SDG&E executed contracts for Small Commercial, Large Commercial and Multifamily in June, which met the 25% compliance deadline of June 30, 2020. SDG&E had an executed contract for Statewide HVAC solicitation in November, when coupled with the statewide programs of other IOUs resulted in SDG&E achieving the 40% outsourcing compliance deadline by December 31, 2020. Advice Letters for the Small Commercial, Large Commercial and Multifamily programs were filed on August 12, 2020. For the Statewide HVAC Program, the Advice Letter was filed on November 12, 2020. All Advice Letters were approved within 30 days of submittal. The Implementation Plan Webinar presentations for the Large Commercial, Small Commercial and Multifamily programs were held on October 30, 2020 and on January 21, 2021 for the Statewide HVAC program.

SDG&E continued to manage solicitations for Statewide PLA, Residential Single-Family, Public Sector – Federal and Public Sector – K-12. Contracting with an implementer for the Single-Family solicitation was not successful. As a result, SDG&E will release a new solicitation in 2021. Preparation for the Local Governments solicitation and the re-release of the Single-Family solicitation began in 2020.

D. SDGE3322 (3P) – Streamlined Ag Efficiency Program

Program Description

The Streamlined Ag Efficiency (SAE) Program commenced in June 2017. The program provides individualized service to agricultural producers and on-farm processors to identify efficiency opportunities, develop and evaluate implementation options, and apply for incentive and rebate funding. The ultimate goal of the SAE Program is healthy participation, and growing sector savings and a vendor community able and willing to articulate the benefits of energy efficiency to their customers.

Implemented Strategies:

The program uses field engineers to build relationships with vendors, associations, government agencies, and other key stakeholders in the realm of the agribusiness market. These relationships enable the program to identify and influence prospective customers to consider upgrades to their equipment. The field engineers then manage the application process, information collection, inspections and M&V in an end-to-end way that minimizes transaction costs for the customer.

The implementer regularly attends agricultural events and trade shows to network, promote the program and inform customers of the different offerings and services available to them.

Challenges/Changes for 2021

The Streamlined Ag Efficiency Program will continue through 2021 and the program implementer will continue to build and leverage the relationships mentioned above to add additional projects to its pipeline for this year.

In addition to targeting customers in the agricultural sector, in 2021 the implementer will also target Ag-related customers in the industrial and commercial sectors. The agricultural sector is one of SDG&E's smaller, harder to reach sectors, however with this expansion of the customer base for 2021 the program will be better positioned to deliver projects going into 2021. The Measure Mix of the program has been expanded to include over 40 measures for 2021.

Many of the program customers are small farms selling produce to restaurants. COVID-19 impacted their sales, because of COVID-19 related restaurant closures.

In response to the COVID-19 global pandemic and in the interest of SDG&E employee, customer and contractor health and safety, on March 20, 2020 program activities requiring face-to-face interaction were suspended. SDG&E put in place virtual access to customers to keep customer contact and service going. Services were able to resume near the end of 2020 however, most projects for this program were delayed until 2021.

2020 Program Accomplishments

The SAE Program had three projects from previous years that completed installation in 2020. Two additional deemed projects were also successfully implemented in 2020. Previous experiences with the program have generated continued interest and the program has served return customers with new projects.

E. SDGE4061 (3P) – Facility Assessment Services

Program Description

This program was established to meet the requirements of Resolution E-4820 Ordering Paragraph 1(e): The IOUs are required to “launch small and medium business pay-for-performance programs by the Fourth Quarter of 2017” in compliance with AB793.

The Facility Assessment Services Program uses a combination of interval energy usage data, energy consulting services, and energy management software to provide businesses with facility specific, action-based solutions. The implementer’s staff engages with targeted customers and remotely analyzes their smart meter data to identify low and no-cost operational and maintenance-focused energy saving opportunities at their facility.

Implemented Strategies

In 2020, the program implementer focused on expanding their existing relationships with national accounts. They also continued to quantify savings achieved from existing participants. The savings were then reported back to the business and monitored on an ongoing basis to ensure persistence.

Challenges/Changes for 2021

The program continued to face challenges in 2020 with sharing customer usage data needed by the implementer to identify energy-saving opportunities at customer locations. After a lengthy review process to ensure that the third party would comply with contractual, legal, information security, and privacy-related requirements, customer interval data was finally shared with the implementer in June, leaving little time to recruit new customers. In addition, there were cases where the implementer was unable to validate energy savings on a consistent or quarterly basis, resulting in several projects being withdrawn from the program. The program stopped enrolling customers at the end of the third quarter. The program closed December 31, 2020 and two new third party programs will begin servicing the Commercial sector in 2021.

2020 Program Accomplishments

The program actively worked to engage customers, resulting in approximately 20 new projects in 2020. Mechanisms for tracking and reporting projects were established through a collaborative effort between the implementer, the CPUC and SDG&E staff.

NEW THIRD PARTY PROGRAMS

D.18-01-004 established the required process for third party solicitations in the context of the EE programs rolling portfolio, overseen by the investor-owned utilities (IOUs) as program administrators (PAs). D.18-01-004 requires a two-stage solicitation approach to soliciting third party program design and implementation services as part of the EE portfolio, and sets the expected progress of these solicitations over the next few years (2019 through 2022) to meet the minimum 60 percent third party implementation of the IOU portfolio⁶.

D.18-01-004 requires the IOUs to utilize procurement review groups (PRGs) for design and conduct of solicitations,⁷ as well as an independent evaluator (IE) structure analogous to the structure utilized by supply-side solicitations, with the exception that the IEs shall be specifically hired for their energy efficiency expertise.⁸ The IEs will provide support to the PRGs and updates to the Commission through semi-annual Independent Evaluator reports, as well as individual reports 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 IOU's Tier 2 advice letter filed with the Commission for that contract.⁹

As described above, D.18-01-004 requires the IOUs to file a Tier 2 AL for each EE third party contract that is valued at five million (\$5MM) or more and/or with a term longer than three years, for Commission review.¹⁰ SDG&E filed three third party advice letters in 2020 in order to move toward compliance with the requirement in D.18-05-041, which states:

The third-party requirements of D.16-08-019 and D.18-01-004 are required to be applied to the business plans of the investor-owned utilities approved in this decision. All utility program administrators shall have at least 25 percent of their 2020 program year forecast budgets under contract for programs designed and implemented by third-parties by no later than December 19, 2019.¹¹

On October 11, 2019, SDG&E filed a request for extension of time to comply with that requirement. SDG&E requested an extension until June 30, 2020 to have contracts signed for its Small Commercial, Large Commercial, and Multifamily Programs.¹² On November 25, 2019, Alice Stebbins, Executive Director of the CPUC, provided written approval of the request for extension to comply with having at least

⁶ D.18-01-004, Decision Addressing Third Party Solicitation Process for Energy Efficiency Programs, Conclusion of Law 5 and Ordering Paragraph (OP) 1.

⁷ *Id.* at OP 3.

⁸ *Id.* at 36.

⁹ *Id.* at 2, 37.

¹⁰ D.18-05-041 OP 2.

¹¹ D. 18-01-004 OP 4.

¹² D.18-01-004 OP 4.

25 percent of their 2020 EE program year budget under contract by December 19, 2019. As of June 30, 2020, SDG&E has met the directive of signed contracts for all three program sectors. As of December 31, 2020, SDG&E has met the 40 percent minimum requirement. SDG&E's third party information is available I Appendix A Table 10.

A. Local Programs

SDG&E signed contracts signed for its Small Commercial, Large Commercial, and Multifamily Programs which were approved by the Commission on August 19, 2020.

1. SDGE4002 Multi-Family Program

Program Description

SDG&E's new Multi-Family Program contract Advice Letter 3586-E was approved on August 19, 2020. The Residential Zero Net Energy Transformation (RZNET) program is a new innovative way of serving multifamily and manufactured homes. RZNET program design is a turnkey, cost-effective, zero net energy, end-to-end solution that transforms multifamily and manufactured home community owners, operators, and residents into knowledgeable stewards of water, electricity, and natural gas. In compliance with SB 350 – Clean Energy and Pollution Reduction Act of 2015, RZNET program participants are put on the path to zero net energy, beginning with direct install measures, complimentary ASHRAE Level 1 audits, sales consultations acting as catalysts for advanced energy efficiency, solar PV installations, and battery storage opportunities for multifamily and manufactured housing properties.

Implemented Strategies

SDG&E scheduled regular planning meetings with the third-party implementer in the fall of 2020 to review all ramp-up tasks and deliverables and conducted training on its system used to upload data and process invoices. To help the implementer construct a pipeline and accelerate program enrollment, SDG&E collaborated in advance with the third party to finalize the program's marketing materials for distribution and circulation.

Challenges/Changes for 2021

The program officially opened for customer participation at the start of 2021. Ramp-up activities were completed to ensure that the program is ready to launch in 2021.

2020 Program Accomplishments

After receiving Commission approval of the third-party contract, SDG&E issued a "Notice to Proceed" and initiated ramp-up activities with the program implementer. The implementer submitted all documentation necessary for the delivery of services, including a final implementation plan, prior to year-end and was granted approval to launch the program in 2021.

2. SDGE4003 Small Commercial Program

Program Description

SDG&E's new Small Commercial Program contract Advice Letter 3585-E was approved on August 19, 2020. SDG&E's Small Commercial Program (SCP) delivers comprehensive, integrated energy efficiency (EE) and demand response (DR) savings to commercial customers with a total maximum monthly demand of 20 kW or less. The SCP complies with SDG&E and CPUC requirements to deliver program goals through an integrated, holistic demand-side offering. The SCP's integrated delivery team provides full customer service and a complete EE solution through a single point of contact. Offering a wide range of measures, the Program seeks to combine and leverage savings from direct install and quick payback measures, such as retro-commissioning and operational measures, along with longer payback, high-impact measures to deliver financially attractive targeted measure bundles for individual small commercial buildings.

Implemented Strategies

SDG&E scheduled regular planning meetings with the third party implementer in the fall to review all ramp-up tasks and deliverables and conducted training on its system used to upload data and process invoices. To help the implementer construct a pipeline and accelerate program enrollment, SDG&E shared a list of qualifying customers with the program implementer and also collaborated in advance with the third party to finalize the program's marketing materials in advance for distribution and circulation.

Challenges/Changes for 2021

The program officially opened for customer participation in 2021. The COVID-19 pandemic added a new layer of uncertainty and is likely to pose challenges as the program strives to increase customer uptake and capture cost-effective energy savings in a market segment that has historically been underserved.

2020 Program Accomplishments

After receiving Commission approval of the third-party contract, SDG&E issued a "Notice to Proceed" and initiated ramp-up activities with the program implementer. The implementer submitted all documentation necessary for the delivery of services, including a final implementation plan, prior to year-end, and was granted approval to launch the program in 2021.

3. SDGE4004 Comprehensive Energy Management Solutions (CEMS) Program

Program Description

SDG&E's new Comprehensive Energy Management Solutions Program contract Advice Letter 3584-E was approved on August 19, 2020. The CEMS Program provides end-to-end program

implementation services, including marketing, outreach, engineering, operations, customer service, and data management and reporting, to large commercial electric and gas customers on qualifying rates schedules with a monthly demand greater than 20 kW in SDG&E's service territory. The Program leverages the implementer's outreach staff, team of subcontractors, and network of trade professionals to provide customers with a single program that addresses all their energy efficiency needs.

Implemented Strategies

SDG&E scheduled regular planning meetings with the third party implementer in the fall of 2020 to review all ramp-up tasks and deliverables and conducted training on its system used to upload data and process invoices. To help the implementer construct a pipeline and accelerate program enrollment, SDG&E shared a list of qualifying customers with the program implementer and also collaborated in advance with the third party to finalize the program's marketing materials for distribution and circulation.

Challenges/Changes for 2021

The program officially opened for customer participation in 2021. The COVID-19 pandemic added a new layer of uncertainty and is likely to pose challenges as the program strives to increase customer uptake and capture cost-effective energy savings.

2020 Program Accomplishments

After receiving Commission approval of the third party contract, SDG&E issued a "Notice to Proceed" and initiated ramp-up activities with the program implementer. The implementer submitted all documentation necessary for the delivery of services, including a final implementation plan, prior to year-end, and was granted approval to launch the program in 2021.

B. New Statewide Programs

D.18-05-041 assigned lead Program Administrators ("PAs") to specific statewide ("SW") programs and downstream pilot programs, and vested each Lead PA with full authority, including assignment of personnel to manage the program on behalf of the Commission.¹³ The Commission identified the various areas of sole responsibility for the lead PA.¹⁴ Among these responsibilities is the "procurement and contract administration" of the SW program.¹⁵ The following program narratives were prepared and provided by the lead IOU for each statewide program.

¹³ D.18-05-041 at 80, 90-92.

¹⁴ D.18-05-041 Conclusion of Law 13 at 172-173.

¹⁵ *Id.*

1. Statewide Codes & Standards Programs

a. SDGE_SW_CSA_Natl - Codes & Standards Advocacy - National Codes & Standards Advocacy (submitted by PG&E)

The following section was provided by PG&E, the lead administrator for the SW C&S programs.

To comply with the Commission's Statewide program and outsourcing goals¹⁶, PG&E's National Code Advocacy subprogram shifted budgets and activities to the new Statewide model in early 2020 with the completion of the implementer bidding process and establishment of statewide balancing accounts to share proportional costs amongst IOUs.

National Codes & Standards: DOE, ASHRAE 90.1 and 189.1, IECC, Energy Star

PG&E advocates for national building codes and appliance standards that support California by encouraging adoption of transformative technologies and construction processes. Alignment between national and state codes also helps reduce barriers to compliance by harmonizing the requirements across state borders. Organizations that work across multiple states, including California, can establish business practices that would result in less customization for the California market. Participation in the DOE, Environmental Protection Agency (EPA), Federal Trade Commission (FTC), the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the International Energy Conservation Code (IECC) code and standard update proceedings in support of increasing requirements is important to minimize gaps, when regionally appropriate, between the California's EE regulations and the EE regulations that other states adopt.

2020 Strategies and Successes

PG&E responded to the DOE rulemakings and supported our positions with data. PG&E collaborated with stakeholders and shared any data collected with DOE and their consultants. This collaboration supports rooftop HVAC (heating, ventilation and air conditioning) units, DX dedicated outdoor air systems, residential refrigerator, commercial and industrial boilers and variable speed HVAC test procedures. PG&E also completed the test plan for TV test procedures.

Additionally, this program advocated for changes to federal appliance standards through multiple efforts. Program staff researched and responded to specific issues related to federal rulemaking and specification processes conducted by the DOE and EPA ENERGY STAR® and participated in stakeholder meetings during rulemakings and specifications processes, resulting in 32 rulemaking advocacy letters issued in 2020¹⁷.

¹⁶ D. 18-05-041.

¹⁷ Several of the advocacy letters were submitted on the same topic to respond to DOE's ongoing rulemakings.

The program supported implementer participation in the Mechanical Subcommittee (MSC) of ASHRAE SSPC 90.1 and attended all meetings of the full committee as a non-voting member. Also, the implementer attends meetings of the Envelope Subcommittee of SSPC 90.1. Work on significant addendums that are nearing completion include:

- Significantly reduced fan power consumption by increasing the scope and stringency of the Fan Power Limits in Section 6.5.3.1
- Increased minimum efficiency of high-capacity water heaters in large buildings from 90 percent to 92 percent thermal efficiency.
- Served as a member of the SSPC 90.1 Energy Credits Working Group, which creates additional requirements through a flexible path for prescriptive measures beyond those found in the standard's chapters.
- Provided direction for building modeling support of the Mechanical (MSC) and Lighting Subcommittees (LSC) addenda and provided guidance on the creation and cost justification for significant addenda based on already-existing Title 24, Part 6 CASE studies. Examples of this work include support for adjustments to the requirements for compressor systems, updates to lighting controls requirements and lighting power density values and providing support for proposals to reduce exceptions and expand the scope of alterations to which controls and lighting power requirements apply.

In addition, implementer efforts to advance Standard 189.1-2020 resulted in reductions to the general lighting power allowance to approximately 10% below those of the ASHRAE / ANSI / IES 90.1 allowances, adding high-rise multifamily dwelling unit lighting control requirements, multi-zone occupancy sensing controls for large office lighting, and limiting SHGC (Solar Heat-Gain Coefficient) derating based on window orientation. The implementer also supported expansion of distributed energy resources by increasing the prescriptive and performance renewable energy requirements to approximately 50% of the total energy consumption. The team participated in the development for source energy factors and carbon emission factors that mirrored efforts for the 2022 Energy Code development, including treating renewables as having no source energy and using the 20 year GWPs for short-lived climate pollutants such as methane.

b. SDGE_SW_CSA_Natl_PA - Codes & Standards Advocacy - National Codes & Standards Advocacy

The SDG&E Codes and Standards (C&S) Advocacy team supported the Statewide National C&S Advocacy subprogram efforts by participating in meetings when requested, reviewing draft and final comment letters for federal rulemaking and specification processes conducted by DOE and EPA. This effort resulted in SDG&E supporting 32 rulemaking advocacy letters issued in 2020. The team also

reviewed technical test procedures upon request, which supported rooftop HVAC (heating, ventilation and air conditioning) units, DX dedicated outdoor air systems, residential refrigerator, commercial and industrial boilers and variable speed HVAC test procedures. The team also reviewed the test plan for TV test procedures as well as providing data and appliance testing results to support the test procedures and test plans.

c. SDGE_SW_CSA_Appl - Codes & Standards Advocacy - State Appliance Standards

The following section was provided by PG&E, the lead administrator for the SW C&S programs.

The Statewide Appliance Standards Advocacy (ASA) subprogram targets improvements to Title 20 by the California Energy Commission. Advocacy activities include developing Title 20 code enhancement proposals and participating in the California Energy Commission public rulemaking process. Additionally, the subprogram monitors state and federal legislation and intervenes, as appropriate. To comply with the Commission's Statewide program and outsourcing goals¹⁸, PG&E's Appliances Standards Advocacy subprogram ramped down in 2019 to shift budgets and activities to the new statewide State Appliance Standards Advocacy program, which launched in Q1 2020.

2020 Strategies and Successes

In 2020, the ASA pursued several specific subprogram efforts. The ASA program staff participated in several Energy Commission webinars and workshops and advocacy for the Energy Commission rulemakings on a couple of products: 1) dedicated purpose pool pump motors and 2) computers. The IOUs supported the adoption of the dedicated purpose pool pump motors and computers standards through advocacy, data analysis and data collection.

d. SDGE_SW_CSA_Appl_PA - Codes & Standards Advocacy - State Appliance Standards

The SDG&E Codes and Standards (C&S) Advocacy team supported the Statewide C&S State Appliance Standard subprogram efforts by participating in meetings when requested, reviewing advocacy efforts, data analysis and data collection for dedicated purpose pool pump motors and computers. This Statewide C&S Appliance Standard Advocacy effort assisted to align SDG&E and statewide support of the appliance products under review by the CEC's Title 20 Appliance team.

e. SDGE_SW_CSA_Bldg - SW Codes & Standards Advocacy

The following section was provided by PG&E, the lead administrator for the SW C&S programs.

The Statewide Building Codes Advocacy subprogram supports the California Energy Commission's triennial update to the Energy Code (Title 24, Part 6) to include new EE regulations or to

¹⁸ D. 18-05-041.

strengthen existing regulations for various technologies or measures. Advocacy activities include the development of Codes and Standards Enhancement (CASE) proposals, research to provide the data needed to advance EE regulations, and participation in the public rulemaking processes. The subprogram also supports the Energy Commission in preparing recommendations to the Building Standards Commission to update the California Green Buildings Standards (Title 24, Part 11 or CALGreen). The voluntary energy measures in CALGreen provide foundational elements for local reach codes.

To comply with the Commission’s Statewide program and outsourcing goals¹⁹, PG&E’s Building Code Advocacy subprogram prepared transition to a Statewide Codes and Standards Advocacy program, which commenced in early 2020. Activities completed to support this included the introduction of a statewide balancing account, budget sharing negotiation, administrative costs agreements, and the continued implementation of contracts that were awarded as part of the public third party bid process that occurred in 2019.

2020 Strategies and Successes

PG&E has been a participant in the code-setting process since the Energy Code was first developed in the 1970s. PG&E is also part of the statewide IOU team that supports the development of the Energy Code. In 2020, Sacramento Municipal Utility District (SMUD) and Los Angeles Department of Water and Power (LADWP) contributed support for the 2022 Energy Code rulemaking cycle and are listed as part of the statewide team on public documents.

In 2020, the Statewide Utility Codes and Standards Program supported the Energy Commission’s 2022 rulemaking by completing 24 Codes and Standards Enhancement (CASE) reports that support 86 building code measure proposals. The focus for the 2022 cycle is on multifamily and non-residential buildings. Single family CASE reports proposed measures for alterations and additions, as well as compliance options that will prepare for prescriptive or mandatory measures in the 2025 and 2028 cycles. Final CASE reports were submitted to the Energy Commission for review in the third quarter of 2020. A list of measures and the final CASE reports are available at [Title24Stakeholders.com](https://www.title24stakeholders.com). This public website was redesigned for the 2022 rulemaking cycle to increase and encourage stakeholder participation in the process. From March 2020 to March 2021, the website received over 490,000 visits from 31,000 unique visitors – more than twice the traffic of the previous period.

In 2020, from March 3 to May 7, the Statewide CASE team hosted 11 online events in ten weeks to engage with stakeholders that may be impacted by the proposed code changes. In spite of hosting these at the start of the COVID-19 crisis, the online convenings were well attended. Online meeting attendance in

¹⁹ D. 18-05-041.

this second round of utility-sponsored stakeholder meetings increased after the March 19th stay-at-home orders were issued. The 2020 stakeholder meetings included 1,101 total attendees, 559 unique individuals representing 312 unique companies. There was a 33 percent increase in unique attendees during the second round of meetings. The outreach efforts led to 1,101 total attendees for all 11 meetings, including 187 new individuals and 155 new organizations. The meetings had 65% average attendance rate, which is well above the industry average of 40-50%. 28 email campaigns to share information about the 2022 code cycle led to an open rate of 25 percent and a click through rate of 14 percent, which is aligned with industry averages.

At the start of 2021, the expected energy savings from the total proposal package across non-residential, multifamily and single-family buildings are 1,186 GWh in Electricity Savings, 182 MW in Peak Demand Reduction, 17 MMTherms in Natural Gas Savings, and 377,958 metric tons of CO₂e in GHG (Green House Gas) emissions reductions. Notable measure updates for this cycle include:

- Multifamily
 - Unification of MF requirements in one section of code, which addresses compliance challenges and establish a framework that will allow for code requirements to be appropriately tailored for MF buildings in future code cycles
 - Supported move to all electric baselines.
 - Maintained commitment to maintaining indoor air quality.
- Single Family
 - Focus on recommendations for additions and alterations, which is an important step as we turn attention to how to achieve savings from existing buildings.
- Nonresidential
 - Covered Processes: The CEC pursued more covered process measures this cycle than they typically pursue. The covered process measures represent a significant savings opportunity, but they also require more advocacy support as many are expanding the scope of Title 24. Measures include controlled environment horticulture (290 GWh – the most of all measures), compressed air, steam trap monitoring, and refrigeration system opportunities.
 - Energy Efficiency: Pursued cost-effective efficiency improvements including requirements for envelope, lighting, HVAC and water heating. For lighting, cleaning up the lighting power density requirements will complete the transition to using LEDs as the baseline in all newly constructed buildings.
 - Controls: Pursued control requirements that will enable load management, heat recovery,

ventilation controls, and savings during unoccupied periods. Establishing requirements for dedicated outdoor air systems (DOAS) was an important step to set a minimum requirement for a technology that is gaining market share particularly in all electric buildings.

The adoption of the 2022 Energy Code is expected by August 2021. Savings expectations will be recalculated based on the final code language. The Statewide CASE Team will support the measure package and the Energy Commission through adoption, then turn to assisting with the compliance manuals and other supporting elements necessary for implementation. The Statewide CASE Team is also supporting the Energy Commission's CALGreen (Title 24, Part 11) voluntary measure package development with several options for cities seeking to adopt reach codes to help meet local decarbonization goals. This package is expected to be submitted to the Energy Commission in the second quarter of 2021. Planning for the 2025 Energy Code cycle begins in 2021.

f. SDGE_SW_CSA_Bldg_PA - SW Codes & Standards Advocacy

The SDG&E Codes and Standards (C&S) Advocacy team supported the Building Codes and Standards Advocacy subprogram efforts by participating in CEC and implementer meetings when requested by the implementer. The team assisted in review of the 24 draft and final Codes and Standards Enhancement (CASE) Reports supporting 86 building code measures focused primarily on multifamily and non-residential buildings when requested. The SDGE C&S team also supported 11 online stakeholder events to review the proposed measures from March 3rd to May 7th. In addition, the team supported and reviewed single family CASE reports for proposed measures for alterations and additions, as well as compliance options that will prepare for prescriptive or mandatory measures in the 2025 and 2028 code cycles when requested. This Statewide Building Codes and Standard Advocacy effort assisted to align SDG&E and statewide support of the proposed 2022 Title 24 measures under review by the CEC's Title 24 Building Standards team.

The SDGE C&S team reviewed the measure package through adoption, and will turn to assisting with the compliance manuals and other supporting elements necessary for implementation upon request in 2021. Additionally, upon request, the team supported CALGreen (Title 24, Part 11) proposed voluntary measure package development with several options for cities seeking to adopt reach codes to help meet local decarbonization goals.

2. SDGE_SW_HVAC_Up - SW Upstream HVAC Commercial Program

SDG&E is the lead administrator for the Statewide Upstream HVAC program, an upstream and midstream program that will offer HVAC measures including high-efficiency commercial unitary air conditioners, commercial heat pumps, commercial chillers, commercial space heating boilers, residential air conditioners, residential heat pumps, residential gas furnaces and residential gravity wall furnaces. The

Program captures savings through the movement of incentivized deemed measures. The Statewide Upstream HVAC Program was contracted on 10/14/2020 with CLEAResult for \$36.9M over a three-year contract period. SDG&E filed the Advice Letter (3648-E) on 11/12/2020 and it was approved on 12/11/2020. The program is expected to launch in Q2 of 2021.

3. SDGE_SW_PLA- Statewide Plug Load & Appliance

SDG&E is the lead program administrator for the Statewide Plug Load and Appliance program. The RFP for the solicitation was released on 1/27/2020. The solicitation is currently on going and it's anticipated that contracting will be completed in Q2 2021.

4. SDGE_SW_ETP_Gas - SW Emerging Technologies – Gas

The following was provided by SCG, the lead program administrator for the SW Emerging Technologies Gas Program.

SoCalGas is the program administrator for three statewide programs in the Statewide Food Service Point of Sale (SW FS POS), the Statewide Mid-Stream Water Heating (SW MS WH), and the Statewide Gas Emerging Technologies (SW GET) sectors. There is not yet an identified program for SW GET, as the solicitation for the program went out for bid in December 2020.

5. SDGE_SW_MCWH – Statewide Midstream Commercial Water Heating

The following was provided by SCG, the lead program administrator for the SW Midstream Commercial Water Heating Program.

SoCalGas is the program administrator for three statewide programs in the Statewide Food Service Point of Sale (SW FS POS), the Statewide Mid-Stream Water Heating (SW MS WH), and the Statewide Gas Emerging Technologies (SW GET) sectors.

The program for the SW MS WH sector is the SW WH Program. It is a distributor-centric model design, which will collaborate with a network of distributors that specialize in the sale of efficient electric and natural gas measures. Point-of-sale discounts and incentives will be paid at the midstream level to distributors based on transactions and sales to contractors. All customers with commercial rate structures served by one of California's four IOUs are eligible for program participation.

Advice Letters for SW FS POS and SW MS WH programs were filed with the Commission on December 15, 2020, and December 4, 2020, respectively. The SW FS POS Advice Letter was approved January 14, 2021. The SW MS WH Advice Letter, following two protests by stakeholders, was suspended on December 30, 2020, and was approved on March, 18 2021. The SW GET program was put out for bid in December, 2020.

6. SDGE_SW_FS – SW Food Service Point of Sale

The following was provided by SCG, the lead program administrator for the SW Food Service Point of Sale Program.

SoCalGas is the program administrator for three statewide programs in the Statewide Food Service Point of Sale (SW FS POS), the Statewide Mid-Stream Water Heating (SW MS WH), and the Statewide Gas Emerging Technologies (SW GET) sectors.

The program for SW FS POS is called the California Foodservice Instant Rebates Program. The program works with midstream market actors to offer POS rebates to California IOU end use customers. All customers with a commercial rate structure served by one of the four IOUs are eligible for POS rebates. Foodservice equipment dealers, manufacturers, contractors, distributors who make sales directly to end use customers are eligible to enroll in the Program.

Advice Letters for SW FS POS and SW MS WH programs were filed with the Commission on December 15, 2020, and December 4, 2020, respectively. The SW FS POS Advice Letter was approved January 14, 2021. The SW MS WH Advice Letter, following two protests by stakeholders, was suspended on December 30, 2020, and was approved on March 18, 2021. The SW GET program was put out for bid in December 2020.

7. SDGE_SW_UL – CA Statewide Lighting Program

The following was provided by SCE, the lead program administrator for the Statewide Upstream Lighting Program.

Program Description

The California Statewide Lighting Program (SWL Program) serves all eligible electric customers in the participating IOUs' service territories – Southern California Edison (SCE), San Diego Gas & Electric (SDG&E), and Pacific Gas & Electric (PG&E). The goal of the SWL Program is to promote the sale and installation of high efficiency lighting products through midstream channels. The third-party implementer, TRC Solutions, will achieve the Program's objectives through implementation of a cost-effective midstream program for the non-Residential, Commercial & Industrial (C&I) market throughout the IOUs' service areas.

Program Status

SCE submitted Advice Letter AL 4356-E²⁰ in 2020 to request approval for its California Statewide

²⁰ SCE AL 4356-E, Advice Letter for Approval of Statewide Lighting Energy Efficiency Third Party Contract for CA Statewide Lighting Program, https://library.sce.com/content/dam/sce-doelib/public/regulatory/filings/approved/electric/ELECTRIC_4356-E.pdf

Lighting Program solicitation, and received a CPUC disposition letter approving the request, effective December 23, 2020. The Program, administered by TRC Solutions, is set to launch in Q2 2021.

SCE has several active solicitations as of the date of this report, including Statewide Electric Emerging Technologies, Local Public Sector, Local Agricultural Sector, Statewide Higher Education, and Statewide Water/Wastewater.

8. SDGE_SW_IP_Colleges – Statewide Higher Education Program

The following was provided by SCE, the lead program administrator for the Statewide Higher Education Program.

SCE began solicitations for the Statewide Higher Education programs and will continue in 2021.

9. SDGE_SW – Water/Wastewater Pumping Program

The following was provided by SCE, the lead program administrator for the Statewide Water/Wastewater Pumping Program.

SCE began solicitations for Water/Wastewater Pumping program and will continue in 2021.

10. SDGE_SW_ETP_Electric – Electric Emerging Technologies Program

The following was provided by SCE, the lead program administrator for the Statewide Electric Emerging Technologies program.

SCE began solicitations for Electric Emerging Technologies program and will continue in 2021.

HIGH OPPORTUNITY PROJECT OR PROGRAMS (HOPPS)

A. SDGE3317 HOPPs Retrocommissioning (RCx)

Program Description

SDG&E's HOPPs RCx Program is designed to offer a systematic process to identify operational and maintenance improvements that optimize building performance and ensure that building systems function efficiently and effectively. The program ensures persistence of savings by requiring customers to commit to a three-year maintenance plan.

Implemented Strategies

In 2020, the SDG&E RCx HOPPs Program identified measures, completed in-depth evaluations of all technical calculations, created whole building models, and supported installation and verification for seven different projects in the pipeline. In parallel, the program supported annual monitoring analysis for eleven different projects that completed installation and verification between 2018-2019, all of which reached annual milestones that required measurement and verification of the projected annual energy savings.

Six projects that the program focused on implementing in 2020 started the year in the preliminary investigation stage, and one project started the year with the full building investigation already complete pending project installation. For all six projects in the preliminary stage, the program focused on having a fully vetted Master List of Findings (MLF) for each project completed by the end of April; however, this timeline was disrupted by limitations that customers and projects faced due to COVID-19. The limitations varied and were unique to each customer as the RCx pipeline included a variety of building types (i.e., healthcare facilities, event centers, hotels/resorts, and office buildings). For some customers, employees with information critical to the projects were on furlough, and for others the trend data could not be collected because the building spaces were empty. All buildings went through various periods where third parties were not allowed on-site, making it impossible to collect quotes, trend data, occupancy information, etc. The program worked hand-in-hand with customers to address each of their challenges. Despite the obstacles, all building investigations were complete and fully evaluated by the end of July with a fully vetted Master List of Findings provided to each customer for their review and approval.

Once onto the implementation stage, the program provided each of the projects with detailed technical assistance and project management support. The program also scheduled regular virtual meetings with trade-allies, engineering providers, and customers to track progress and coordinate installations that were aligned with program findings and recommendations. Some measures were impacted by COVID-19. Customers facing significant decreases in revenue were less motivated to invest in the capital improvements that were identified to reduce their energy consumption. Furthermore, an increased focus on improving

indoor air quality and introducing more outside air to indoor spaces took precedence over energy saving opportunities that were tied to HVAC system and controls adjustments. Customers with office buildings and event spaces became less interested in energy efficiency given many or all the building systems were shut down indefinitely until vacancy returned to normal levels. The program worked alongside each customer to understand their concerns, address the impacts of COVID-19, and identify creative solutions that supported cost and indoor air quality concerns while also completing all required and some recommended measures. Total expected energy savings on a per building basis were not compromised.

The other significant challenges due to COVID-19 were delays in project implementation. SDG&E demonstrated flexibility and customer support by extending project deadlines to accommodate the several different types of delays that were outside of the customers' control. Some of these delays were due to extended lead times on products, prolonged project approval processes with planning and development departments, and restrictions on who could be on-site. Limited site access impacted turnaround time for quotes, collecting trend data and completing installations and/or controls adjustments.

Overcoming challenges from COVID-19, five projects in the pipeline completed installation and verification in 2020 and the remaining two projects will be complete by the end of Q1 2021. For the five projects that reached completion, the program provided services for verification of implementation through onsite inspections and short-term trending, supported making necessary adjustments to savings calculations, and facilitated training for every customer and their employees on requisite maintenance activities to ensure persistent savings.

For the eleven projects that completed installation and verification in 2018-2019 and achieved scheduled annual milestones throughout 2020, the program identified and reviewed non-routine events and any deviations from expected savings levels. At completion of the first or second year of monitoring for each installed project, the program met virtually with customers to share the draft of the previous year modeled savings and to discuss results of the customer's completed maintenance log. Following this meeting, the program finalized the whole building model based on customer input and when applicable, supported the customer in troubleshooting and correcting any measure issues to get savings back on track in a timely manner.

A secondary alternative path for HOPPs RCx, the self-sponsor path, was created in 2017. Under this approach, SDG&E works with eligible customers to identify potential projects to demonstrate measured savings under existing conditions, pay for performance, and comprehensive whole-building approach to building efficiency. Different from the third party implemented path where an authorized vendor manages the process and program, a self-sponsored project includes roles held by SDG&E, the customer and any third party hired by the customer. The self-sponsored path follows the same guidance as laid out in the

Commission's Ruling regarding HOPPs and ensures persistence of savings. This is done by restructuring the previous incentive process and stretching the incentive out through four payments over three years. Self-sponsored customers can use their own staff or SDG&E's third party implementer agents to perform measurement and verification of the work performed during the installation and at the end of each year of the maintenance plan phase of a project.

This approach is targeted to meet the needs of a niche set of customers, for whom a three-year commitment of persistent savings exists. SDG&E works closely with potential customers to identify a unique set of projects to meet the requirements for this alternative path. Through the 2020 program year there have been no customers who have utilized the self-sponsor path.

Moving forward, SDG&E will not see any future potential for the self-sponsor path to be used given that the HOPPs RCx program will be fully subscribed and the program will only consist of existing projects which are producing results from the post installation monitoring phase from the three-year monitoring program process.

Challenges/Changes for 2021

COVID-19 posed a significant challenge for the program in 2020 and will pose challenges in 2021. Addressing a multitude of non-routine events given irregular levels of occupancy and/or vacancy due to COVID-19 will continue to be difficult. The program has eleven projects in various stages of annual monitoring, five projects that were completed in late 2020, and two projects that will reach completion in early 2021. Nearly all projects were impacted by COVID-19 and will require Non-Routine Event (NRE) reviews and adjustments. The program is prepared to face this challenge through work completed in Fall 2020 to standardize the NRE processes and procedures with guidelines and formalized templates to document the impact of NREs and how they are factored into building and savings calculations.

2020 Program Accomplishments

The program successfully retained all customers in the 2020 pipeline despite several obstacles and customer concerns that put projects in jeopardy. The program completed full building investigations and evaluation of findings for seven projects. All seven customers moved forward with the required measures for their buildings, and the five projects completed in 2020 saw savings aligned with expectations.

Overall, program savings in 2020 are lower than expected due to two projects being pushed into 2021. However, these two projects do not represent missed opportunities as their savings will be deferred to 2021. Both projects involve hospitals that spent several months preparing for installation by identifying the project scope, completing the bidding and contractor selection process, working through planning and development departments, and starting work. Both projects will reach completion within Q2 2021 and it is expected they will drive significant savings at that time.

WATER ENERGY NEXUS ACTIVITIES

The California Water Plan is the State’s Strategic Plan for managing and developing water resources statewide for current and future generations.²¹ It provides a collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders, and the public to develop findings and recommendations and make informed decisions for California's water future.

The Commission opened Rulemaking (R.) 13-12-011²² which is intended to develop policies that will promote a partnership framework between energy IOUs and the water sector to develop and implement Water Energy Nexus (WEN) programs and initiatives to meet the requirements of the California Water Plan. SDG&E’s WEN Program was closed in 2018, however, the activities surrounding reduction of energy by the water sector have continued. The Commission’s ultimate goal is to “reduce energy consumption by the water sector in supplying, conveying, treating, and distributing water.”²³ The Commission issued several decisions described below that would promote these objectives.

D.15-09-023 adopted the WEN Cost Calculator tool that is designed to calculate the embedded energy in water and avoided capacity cost associated with water savings. And directed a workshop on one or more pilots on Advanced Meter Infrastructure (AMI) integration.²⁴

D.16-06-010 approved pilots to test the impacts of joint delivery of energy and water data to customers, including the shared use of the energy utility’s advanced metering communication network.²⁵ This decision also set the requirements for the IOUs to report WEN activities beginning with the 2016 Energy Efficiency Annual Reports due in 2017.²⁶

D.16-11-021 approved the electric energy IOUs’ pilots to test the concept of “Matinee Rates” that would encourage water and energy use efficiency.²⁷ The Matinee Rates pilots would provide for “tariff[s]

²¹ The California Water Plan, available at <https://water.ca.gov/Programs/California-Water-Plan>.

²² R.13-12-011, *Decision Granting petition and Opening Rulemaking* (December 30, 2013), available at <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M084/K481/84481715.PDF>

²³ *Id.*, *Ordering Paragraph 1 at 25*

²⁴ D.15-09-023, *Decision regarding Tools for Calculating the Embedded Energy in Water and an Avoided Capacity Cost Associated with Water Savings* (September 17, 2015), available at <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M154/K551/154551293.PDF>

²⁵

D.16-06-010, *Decision approving pilots to Test Impacts of Joint Delivery of Energy and Water Data to Customers and Exploring Technical Issues Associated with Shared Use of Energy Utility Advanced Metering Communication Network* (June 9, 2016), available at <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M163/K328/163328148.PDF>

²⁶ *Id.* at 21.

²⁷ D.16-11-021, *Decision Approving Pilots for Matinee Pricing* (November 10, 2016), available at <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M169/K487/169487466.PDF>

that would encourage a shift in energy use by commercial, industrial, and agricultural users to alternative times of the day when abundant renewable and low-water-using energy is produced at high (and growing) quantities.”²⁸

D.16-12-047 provides direction for next steps to: (1) update the WEN calculator and connect it to the energy efficiency cost effectiveness calculator; (2) incorporate a value representing the embedded natural gas in the water system; and (3) create a Plan of Action to update the WEN calculator working with the Energy Division.²⁹

2020 Program Accomplishments

- **Water Energy Nexus (WEN) Calculator and Measure Workpaper Activities**

In 2020, SDG&E as the lead utility worked with the IOUs to update the WEN statewide workpapers for deemed measures offered by the IOUs and Metropolitan Water District (MWD). The SWMI001-01 WEN workpaper was migrated to a statewide workpaper format and a master deemed measures excel file was added to align with deemed statewide water savings WEN measures.

- **WE&T’s Connections WEN Activities**

As part of WE&T’s Connections program, K-8 students are educated on energy and water topics. The curriculum developed by The Energy Coalition (TEC), SDG&E’s partner for the Connections program, conducted a comprehensive approach to water and energy education. Through live webinars, videos, partnerships with PureWater and Urban Corps, and field trips to SDG&E’s Energy Innovation Center (EIC), students learned about the connection between energy, water and waste saving and how to apply that knowledge at home. The curriculum created by TEC showcases how sustainable practices are efficiently put into place by using examples at SDG&E’s Energy Innovation Center. Using live demonstrations, Pure Water teaches students about the water purification process and how it applies to recycled water. Pairing this offering with TEC’s water energy nexus curriculum furthers the connection between energy and water. More information on the Connections Program can be found in the Workforce Education and Training section.

²⁸ *Id.* at 5.

²⁹ D.16-12-047, *Decision Updating the Water Energy Nexus Cost Calculator, proposing Further Inquiry, and Next Steps*(December 15, 2016), available at <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M171/K495/171495551.PDF>

- **Energy and Water Savings**

The table below reflects the 2020 water-energy measures offered under SDG&E's energy efficiency and ESA programs and the savings achieved.

PrgID	EE Program Name	Measure	Quantity	Total Water Savings (Gallons)	Total Average Annual kWh Savings	Total Average WEN kWh Savings
SDGE3207	SW-CALS-MFEER	Lavatory Aerator-0.5 gpm, gas (SWWH001D)	126	298,998	776	52
SDGE3223	SW-COM-Deemed Incentives-Commercial Rebates	Ozone Laundry System (SWAP005A)	1,295	3,611,755	9,371	16,731
SDGE3223	SW-COM-Deemed Incentives-Commercial Rebates	Food Service - Electric Combination Oven <15 Pans Oven (Eff >= 60) (SWFS003A)	2	43,800	114	203
SDGE3223	SW-COM-Deemed Incentives-Commercial Rebates	Food Service - Gas Combination Oven < 15 Pans Oven (Eff=>30) (SWFS003D)	2	43,800	114	203
SDGE3226	SW-COM Direct Install	Food Service - IceMach-Commercial Ice Machines IMH 300 to 799 lbs/day (SWFS006E)	4	14,156	37	66
SDGE3226	SW-COM Direct Install	Low Flow Pre-Rinse Spray Valve, 0.75 - 1.07 GPM (SWFS013A) - Com	9	49,275	128	228
SDGE3233	SW-IND-Deemed Incentives	Ozone Laundry System (SWAP005A)	440	1,227,160	3,184	5,685
SDGE3279	3P-Res-Comprehensive Manufactured-Mobile Home	Kitchen Aerator-1.5 gpm, gas (SWWH001A)	228	233,016	605	94
SDGE3279	3P-Res-Comprehensive Manufactured-Mobile Home	Lavatory Aerator-0.5 gpm, gas (SWWH001D)	727	1,725,171	4,476	298
SDGE3279	3P-Res-Comprehensive Manufactured-Mobile Home	Kitchen Aerator-1.5 gpm, electric (SWWH001E)	6	6,132	16	2
		Totals		7,253,263	18,819	23,561
	Energy Savings Assistance (ESA) Programs					
		High Efficiency Clothes Washer	133	677,236	1,757	3,137
		Totals		677,236	1,757	3,137
	Other ESA Measures (No Workpapers for WEN Savings)					
		Other Domestic Hot Water (Could include the following parts: Faucet Aerator, Low Flow Showerhead, and Thermostatic shower valve)	5,742	-	4	-
		Water Heater Tank and Pipe Insulation (Therms savings only)	494	-	-	-
		Water Heater Repair/Replacement (Therms savings only)	1,461	-	-	-
		Combined Showerhead/TSV (Therms savings only)	5	-	-	-
		New - Tub Diverter/ Tub Spout	61	-	3	-
		Totals		-	7	-
	All Program Totals			7,930,499	20,582	26,698

OTHER ENERGY EFFICIENCY ACTIVITIES AND PROGRAMS

A. SDGE3259 SW-ME&O

Program Description

The Statewide Marketing, Education, and Outreach (ME&O) Program is implemented by a Statewide Administrator across all CA IOU's. Statewide ME&O is centered on the Energy Upgrade California (EUC) campaign, a statewide educational drive that aims to lead consumers to products, services and rates that empower all Californians to take actions that can lead to lower bills, higher energy efficiency and more customer-owned renewable energy technologies. The statewide administrator and implementer of this campaign submits the Annual Report (known as the Joint Consumer Action Plan or JCAP), which tracks the program separately from the general energy efficiency portfolio.

Implemented Strategies

SDG&E serves in a supportive and consultative role. SDG&E's ME&O staff actively participates in ongoing collaboration efforts between the Statewide Administrator and the IOUs at the EUC quarterly stakeholder meetings, regular calls, joint community events and other opportunities as agreed upon with the statewide ME&O administrator. SDG&E provides regular feedback and input to the statewide ME&O strategies and creative executions.

Challenges/Changes for 2021

In 2021, EE strategy will be a continuation of the "Year of Action" and inspiring and empowering communities to Keep It Golden (KIG) through collective energy action through an updated Joint Consumer Action Plan, which was filed March 31, 2021.

2020 Program Accomplishments

Per the Statewide Administrator, with an 11% increase in KIG aided awareness, the slogan gained considerable traction in the minds of Californians. Given its priority in creative, a lift in slogan awareness was the goal: KIG aided awareness: 12% to 23%. Aided EUC brand awareness and familiarity remained steady through year 4, seeing only slight changes: EUC aided awareness: 34% to 31% and EUC Familiarity: 41% to 44% awareness experienced a drop since reaching a high of 8% in June 2019, but is currently on an upward trend: 1% (Mar. 2020) to 3% (Nov. 2020).

B. SDGE3281 EM&V – Evaluation Measurement and Verification

EM&V activities are designed to 1) inform the program selection process, 2) provide early feedback to program implementers, 3) produce impact evaluations at the end of the funding period, and

4) provide feedback into the planning process for future program cycles.

SDG&E participated in the development of the statewide EM&V roadmap that outlines the various EM&V projects that the Commission's Energy Division and utilities will manage in 2020. SDG&E either managed or participated in statewide studies through the various Project Coordinating Groups (PCGs) that support these studies.

C. Statewide Finance Pilots Program Description

In D.12-11-015, the Commission authorized \$75.2 million for energy efficiency financing pilot programs to be implemented in 2013-2014. However, due to the complexity of the process to design and implement these innovative new pilots, the pilot period lasted beyond 2014. In D.13-09-044, the Commission approved a series of financing pilot programs covering both residential and non-residential markets, and further extending the pilot period to 2015.

Subsequently, D.15-06-008 further extended the pilots' terms beyond 2015 so that each pilot is funded for a full 24 months of operation with no additional budget, as approved originally in D.12-11-015. Lastly, D.17-03-026 OP7 authorized continued utility pilot support and funding.

In 2017, SDG&E filed Advice Letter 3147-E/2625-G with information on its 2017-2020 annual program budgets. SDG&E's Advice Letter was approved effective January 1, 2018. As a result, these pilots are separate from the current 2020 portfolio and tracked outside the standard energy efficiency program portfolio.

Administration of the pilots is delegated to the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA). These pilots include various forms of credit enhancements (CEs) for residential properties and small businesses. The CEs are expected to provide additional security to third party lenders and private capital so they can extend or improve credit terms for energy efficiency projects. Some of the pilots will also include an On-Bill Repayment (OBR) feature. SDG&E provides support for these pilots under the following program categories:

SDGE3264 SW-FIN-New Fin Offerings - CHEEF & Funds Reserved

SDGE3308 SW-Finance ME&O

SDGE3312 SW-FIN – New Finance Offerings – Finance Pilot IT Support

SDGE3325 SW-FIN – Finance Pilots – SDG&E Administration

Implemented Strategies

Throughout the year, SDG&E worked alongside the statewide finance ME&O administrator, Center for Sustainable Energy, to increase the program's effectiveness and facilitate loan volume by targeting homeowners through local, targeted marketing efforts, such as digital advertising campaigns

and paid social media posts.

Additionally, SDG&E continues to work collaboratively with CAEATFA and other program stakeholders on the development of the remaining pilots. Meanwhile, CAEATFA continues to research and develop OBR, which is expected to be an added feature in 2020 and key component of the pilot programs, including a future non-residential pilot. In April 2020, the CPUC approved Resolution E-5072 which transitioned the Residential Energy Efficiency Loan Program (REEL) from a pilot to a full-scale program. CAEATFA will continue in its role as the administrator of the REEL.

2020 Program Accomplishments

In 2020, participating lenders funded approximately 75 projects in SDG&E's service territory, with an approximate combined project cost of over \$339,000.

D. California Analysis Tool for Locational Energy Assessment (CATALENA)

Project Description (Provided by Lead IOU SCE, modified by SDG&E)

In its Decision (D.)18-05-041,³⁰ the Commission directed the IOU Program Administrators³¹ (PAs) to select a lead to oversee the statewide deployment of a tool akin to the legacy tool known as "Energy Atlas", which served as a database of building energy consumption that links utility account information to building characteristics, socio-demographic data, and other significant attributes that can be expressed spatially. The public portion of the Energy Atlas is a front-end website which displays spatially aggregated energy consumption statistics at an annual temporal resolution for most neighborhoods, cities, and counties in Southern California (excluding SDG&E territory). The statewide tool is now referred to as "CATALENA", and IOUs are directed to competitively solicit a third party to:

- Implement the deployment
- Maintain data quality, consistency and security
- Continue development of the Energy Atlas's capabilities, and
- Encourage and support local governments that choose to participate.

With the concurrence of the other IOUs, SCE is the lead, overseeing the statewide deployment of the new CATALENA tool. D.18-05-041 also directed the IOU PAs to:

³⁰ D.18-05-041, *Addressing Energy Efficiency Business Plans*, available at <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M215/K706/215706139.PDF>.

³¹ *Id.* at OP 32 (SCE, Pacific Gas & Electric (PG&E) Company, San Diego Gas & Electric (SDG&E) Company, and Southern California Gas (SoCalGas) Company).

- Allocate up to \$2 million to CATALENA, and
- Include annual management and maintenance costs for CATALENA in their annual budget advice letters, in proportion to their relevant energy efficiency (EE) programs.³²

The CATALENA website and database system is envisioned as giving users access to aggregated energy use profiles of residential, commercial, industrial, and agricultural customers within the IOUs' service territories. CATALENA may also combine energy use data with other relevant information, potentially including:

- Energy efficiency program deployment
- Electric vehicle and charging station data
- Behind-the-meter solar and storage capacity, and
- Other relevant public data.

CATALENA is anticipated to be capable of displaying data through graphs, charts, and (potentially) an interactive map.

2020 Accomplishments (Provided by Lead IOU SCE)

In 2020, the IOUs' CATALENA Working Group ("Working Group"), led by SCE, continued to develop the scope of work (project work specifications) for the development and implementation of CATALENA, as directed in D.18-05-041.

Core Function Activities:

- Built consensus on interpretation of the rules set forth in D.14-05-016³³ (and other energy data privacy rules) and their applicability to the CATALENA scope; and
- Completed the drafts of business requirements and functional capabilities for CATALENA, with review based on local government stakeholder surveys and meetings.

Collaboration with Others:

To advance the development of the work specification, the Working Group:

³² *Id.* at OP 32.

³³ D.14-05-016, *Decision Adopting Rules to Provide Access to Energy Usage and Usage-Related Data While Protecting Privacy of Personal Data*, available at <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M090/K845/90845985.pdf>.

- Coordinated with California Energy Commission (CEC) Staff to leverage their energy database in support of the project;
- Collaborated with Regional Energy Network (REN) to plan for the future launch of a Request for Proposals (RFP) to identify a project developer to design, implement, and maintain the CATALENA website and database; and
- Continued to collaborate with the CPUC to determine the appropriate level of data reporting to include in the work specification.

The Working Group continued to meet bi-monthly for project status updates.

Challenges/Changes for 2021 (Provided by SDG&E)

SDG&E believes the primary challenge consists of reaching statewide consensus on the scope of the CATALENA project specifically the appropriate level of data collection, so that the RFP can be issued, a vendor can be selected, and the project can be implemented. SDG&E is an active participant in discussions with the IOUs, CEC, & CPUC regarding the scope of the CATALENA project. Until stakeholders can reach consensus, the project cannot proceed.

E. Portfolio Operations and Compliance Process Enhancements

In 2020, SDG&E reviewed and made several process improvements to EE program management in order to improve compliance and assure the prudent management of SDG&E's EE portfolio. The following areas underwent significant review.

Audits and Inspections: SDG&E conducted a review of its current programs and implemented changes in its inspection protocols to ensure that current inspection rates follow industry-standard practice. In 2021, SDG&E will continue to develop additional statistically sound methodologies to establish the frequency of and process for field inspections for each program. For new programs, inspection rates are being expressly included in a contract's statement of work and metrics. For third party implemented programs, where inspections are conducted by the third party, SDG&E will be auditing these inspections and results while conducting inspections beyond those performed by the vendor, along with a pay-for-performance contract term.

New Employee and Contractor Training: SDG&E is developing a program administration training program for its staff and for new contractors as they are brought in. The purpose of the training is to elevate program advisor knowledge and implementation of best practices in managing contracts for existing programs, including tracking and managing contract performance indicators and metrics, scopes of work, and other contract elements. This training will also extend to groups that provide

systems, engineering, inspections, policy, and compliance support and will be provided in 2021.

Invoices: SDG&E has strengthened the process for invoice review and payment. In order to address issues created by the siloed review of invoices, a formal checklist procedure was developed for the review and approval of each invoice, which includes signature requirements of the reviewer and approver, to ensure that appropriate documentation is included with each invoice and that the invoice is accurate and paid in accordance with program and company rules. Furthermore, SDG&E developed an online training program regarding program requirements for its energy efficiency programs staff at all levels who are responsible for reviewing and approving invoices to ensure internal approval policies and standards are understood and followed. The mandatory training program was launched in early 2021.

Onboarding New Vendors and Contractors: SDG&E has developed and strengthened the process for onboarding new vendors and contractors, including a more in-depth review of whether such vendors and contractors can contractually, legally, and financially perform under their contracts. This includes conducting credit reviews where appropriate and ensuring that solicitation processes are implemented.

Vendor and Contractor Monitoring: SDG&E has also instituted additional monitoring processes to ensure that vendors and contractors comply with program rules, especially where program rules change after contracts have been signed. This effort includes more frequent meetings with contractors and internal customer program staff to discuss vendor/contractor compliance and internal program compliance, in addition to program performance. While such monitoring work has been implemented on a quarterly basis, Customer Programs has identified the need to conduct these processes with more formalized procedures and increase the frequency of meetings for new programs to a monthly basis for at least the first 6 months of the program.

Business Operations Compliance Controls: SDG&E has developed protocols in cases of contractor noncompliance, including instituting controls corresponding to corrective action. In conjunction with enforcement of contractor compliance, SDG&E has also examined existing protocols and tools to ensure its own compliance (e.g., audits from an internal audit group and/or Customer Programs Compliance group). SDG&E has also developed, launched, and completed a mandatory and comprehensive compliance training course that will be re-issued to all department personnel on an annual basis. The purpose of the training is to review the core tenets and requirements of program administration, for both new employees as well as refreshing the material for the existing employee base.

**APPENDIX A
ANNUAL REPORT TABLES**

Files and Data tables are available online at:

<https://www.sdge.com/rates-and-regulations/regulatory-filing/914/energy-efficiency-filings>

SECTION 1 - ENERGY SAVINGS

The purpose of the following table (Table 1) is to report the savings achievements of the energy efficiency portfolio of programs implemented by SDG&E for the 2020 program year toward the CPUC Adopted Goals (D.19-08-34). Beginning in 2020, per D.19-08-034, Energy Savings Assistance (ESA) accomplishments do not contribute to IOU goal attainment. The annual impacts are reported for 2020 in terms of annual and lifecycle energy savings in GWh (gigawatt hours), annual and lifecycle natural gas savings in MMth (million Therms), and peak demand savings in MW (megawatts). The table shows annual savings that reflect installed savings, not including commitments.

San Diego Gas & Electric, 2020

Table 1			
Electricity and Natural Gas Savings and Demand Reduction (Net)			
Annual Results	2020 Installed Savings (1)	CPUC 2020 Adopted Goals (D.19-08-34)	% of Goals (2020)
<i>2020 Energy Savings (GWh) – Annual</i>	570.7	230.0	248%
TOTAL Energy Savings (GWh) - Annual			
<i>2020 Energy Savings (GWh) – Lifecycle</i>	7,637		
TOTAL Energy Savings (GWh) – Lifecycle			
<i>2020 Natural Gas Savings (MMth) – Annual</i>	4.8	3.5	138%
TOTAL Natural Gas Savings (MMth) – Annual			
<i>2020 Natural Gas Savings (MMth) – Lifecycle</i>	52		
TOTAL Natural Gas Savings (MMth) – Lifecycle			
<i>2020 Peak Demand savings (MW)</i>	95.0	46.0	207%
TOTAL Peak Demand savings (MW)			

Notes: (1) Beginning in 2020, per D.19-08-034, Energy Savings Assistance (ESA) accomplishments do not contribute to IOU goal attainment. Therefore, these energy savings results represent the achievements of the EE portfolio only.

SECTION 2 - EMISSION REDUCTIONS

The purpose of the following table (Table 2) is to report the annual incremental environmental impacts of the energy efficiency portfolio (for both electricity and natural gas) of programs implemented by SDG&E during the 2019 program year. Parties agreed that the impacts should be in terms of annual and lifecycle tons of CO2, NOx, and PM10 avoided and should come from the E3 calculator.

San Diego Gas & Electric, 2020						
Table 2						
<i>Environmental Impacts (Net)</i>						
2020 Annual Results	Annual tons of CO2 avoided	Lifecycle tons of CO2 avoided	Annual tons of NOx avoided	Lifecycle tons of NOx avoided	Annual tons of PM10 avoided	Lifecycle tons of PM10 avoided
SDG&E	219,376	2,248,056	34	405	9	121
2020 Total	219,376	2,248,056	34	405	9	121
Note: All values are based on the CEDARS CET output.						

SECTION 3 - EXPENDITURES

The purpose of Table 3 is to report the annual costs expended by SDG&E in implementing the 2020 Energy Efficiency portfolio of programs. The report shows the “Total EE Portfolio Expenditures” broken out into the Administrative Costs, Marketing/Advertising/Outreach Costs, Direct Implementation Costs, and Evaluation, Measurement and Verification (EM&V) Cost categories. This table also includes budget and expenditure dollars for SW ME&O and On-Bill Financing Programs/Pilots.

SECTION 4 - COST EFFECTIVENESS

The purpose of the following table (Table 4) is to provide an annual update on the cost effectiveness of the energy efficiency portfolio of programs being implemented in the 2019 program year.

San Diego Gas & Electric, 2020										
Table 4										
<i>Cost Effectiveness (Net)</i>										
Annual Results	Total Benefits (TRC/PAC)	Total TRC Cost	Net TRC Benefits	TRC Ratio	Total PAC Cost	Net PAC Benefits	PAC Ratio	PAC Cost per kW Saved (\$/kW) (1)	PAC Cost per kWh Saved (\$/kWh)	PAC Cost per therm Saved (\$/therm)
	\$ 591,513,758	\$ 193,203,483	\$ 398,310,274	3.06	\$ 55,285,400	\$ 591,513,758	10.70		0.01	0.17
TOTAL	\$ 591,513,758	\$ 193,203,483	\$ 398,310,274	3.06	\$ 55,285,400	\$ 591,513,758	10.70		0.01	0.17

(1) The adopted avoided cost methodology does not provide information to provide a meaningful value for PAC Cost per kw.

SECTION 5 - RATEPAYER IMPACTS

The purpose of the following table (Table 5) is to report the annual impact of the energy efficiency activities on customer bills relative to bills without the energy efficiency programs, as required by Rule X.3 of the Energy Efficiency Policy Manual version 3, adopted in D.05-04-051.

San Diego Gas & Electric, 2020

Table 5

Average Ratepayer Bill Impacts*

2020	Electric Average Rate (Res and Non-Res) \$/kwh	Gas Average Rate (Core and Non-Core) \$/therm	Average First Year Bill Savings (\$)	Average Lifecycle Bill Savings (\$)
SDG&E Average	\$0.240	\$0.984	\$141,682,000	\$ 1,883,897,000

*Average Bill Savings are based on the Energy Efficiency portfolio energy savings reported in Table 1.

SECTION 6 - SAVINGS BY END-USE

The purpose of the following table (Table 6) is to show annual portfolio savings by end-use category, including those savings attributable to the ESA program and Codes and Standards pre-2020 advocacy work.

San Diego Gas & Electric, 2020							
Table 6							
<i>Annual Net Savings By Use Category 2020</i>							
Use Category	GWH	% of Total	MW	% of Total	MMTh	% of Total	
Appliance or Plug Load	39.10	6.83%	6.10	6.40%	-0.09	-1.74%	
Building Envelope	7.60	1.32%	2.72	2.85%	0.31	6.40%	
Compressed Air	0.80	0.14%	0.00	0.00%	0.00	0.00%	
Commercial Refrigeration	14.80	2.58%	1.74	1.83%	-0.01	-0.21%	
Codes & Standards	20.50	3.57%	3.24	3.40%	0.00	-0.01%	
Food Service	0.10	0.02%	0.02	0.02%	0.01	0.16%	
HVAC	34.10	5.95%	13.65	14.32%	0.77	15.82%	
Irrigation	0.00	0.00%	0.00	0.00%	0.00	0.00%	
Lighting	348.70	60.88%	41.42	43.44%	-0.30	-6.17%	
Non-Savings Measure	0.00	0.00%	0.00	0.00%	0.00	0.00%	
Process Distribution	0.10	0.02%	0.01	0.01%	0.00	0.00%	
Process Drying	0.00	0.00%	0.00	0.00%	0.00	0.00%	
Process Heat	2.60	0.46%	0.34	0.35%	0.09	1.88%	
Process Refrigeration	0.00	0.00%	0.00	0.00%	0.00	0.00%	
Recreation	6.00	1.05%	1.09	1.14%	0.05	1.01%	
Service	0.00	0.00%	0.00	0.00%	0.00	0.00%	
Service and Domestic Hot Water	4.30	0.75%	0.61	0.64%	1.66	33.85%	
Whole Building	94.10	16.42%	24.41	25.60%	2.40	49.01%	
ANNUAL PORTFOLIO SAVINGS	573	100.00%	95	100.00%	4.89	100.00%	
Notes:							
(1) Includes Energy Savings Assistance (ESA) program savings of 2,094,520 KWH, 331 KW, and 48.242 therms.							
(2) For the Codes & Standards programs, savings that do not have a standard Use Category appear in the Use Category "Codes & Standards".							

SECTION 7 - COMMITMENTS

The purpose of the following table (Table 7) is to allow the utilities to report commitments (contractual or incentive) that will produce savings after December 2020. This information will be useful for the Commission’s resource planning purposes by enabling program activities to be linked to a particular funding cycle.

San Diego Gas & Electric, 2020

Table 7

Commitments

Commitments Made in the Past with Expected Implementation after December 2010-2012				
	Committed Funds ⁵	Expected Energy Savings		
2010-2012 ¹	\$	GWH	MW	MMth
Resource	\$ -	-	-	-
Non-Resource	\$ 1,168,190	-	-	-
Codes & Standards	\$ -	-	-	-
[PA] Total	\$ 1,168,190	-	-	-

Commitments Made in the Past Year with Expected Implementation after December 2013-2015				
	Committed Funds ⁵	Expected Energy Savings		
2013-2015 ^{2,4}	\$	GWH	MW	MMth
Resource	\$ -	-	-	-
Non-Resource	\$ 4,650,572	-	-	-
Codes & Standards	\$ -	-	-	-
[PA] Total	\$ 4,650,572	-	-	-

Commitments Made in the Past Year with Expected Implementation after December 2016				
	Committed Funds ⁵	Expected Energy Savings		
2016 ³	\$	GWH	MW	MMth
Resource	\$ -	-	-	-
Non-Resource	\$ 3,834,460	-	-	-
Codes & Standards	\$ -	-	-	-
[PA] Total	\$ 3,834,460	-	-	-

Commitments Made in the Past Year with Expected Implementation after December 2017				
	Committed Funds ⁵	Expected Energy Savings		
2017 ³	\$	GWH	MW	MMth
Resource	\$ 409,012	0.53	0.11	0.01
Non-Resource	\$ 3,501,442	-	-	-
Codes & Standards	\$ -	-	-	-
[PA] Total	\$ 3,910,454	0.53	0.11	0.01

Commitments Made in the Past Year with Expected Implementation after December 2018				
	Committed Funds ⁵	Expected Energy Savings		
2018 ³	\$	GWH	MW	MMth
Resource	\$ 876,706	1.10	0.07	0.01
Non-Resource	\$ 3,519,925	-	-	-
Codes & Standards	\$ -	-	-	-
[PA] Total	\$ 4,396,631	1.10	0.07	0.01

Commitments Made in the Past Year with Expected Implementation after December 2019				
	Committed Funds ⁵	Expected Energy Savings		
2019 ³	\$	GWH	MW	MMth
Resource	\$ 1,461,162	2.72	0.32	0.08
Non-Resource	\$ 6,006,892	-	-	-
Codes & Standards	\$ -	-	-	-
[PA] Total	\$ 7,468,054	2.72	0.32	0.08

Commitments Made in the Past Year with Expected Implementation after December 2020				
	Committed Funds ⁵	Expected Energy Savings		
2020 ³	\$	GWH	MW	MMth
Resource	\$ 2,100,741	9.66	0.54	0.50
Non-Resource	\$ 3,817,566	-	-	-
Codes & Standards	\$ -	-	-	-
[PA] Total	\$ 5,918,307	9.66	0.54	0.50

¹ Note: Committed funds are associated with the 2010-2012 program cycle. These funds are reserved or encumbered for future work permitted per Ordering Paragraph 13 and Conclusion of Law 12 of D.12-11-015.

² Note: Committed funds are associated with the 2013-2015 program cycle. These funds are reserved or encumbered for future work permitted per the EESTATS CPUC Guidance Document and EE decision (D.15-10-025).

³ Note: Committed funds are associated with the 2016, 2017, 2018, 2019,2020 program years, respectively. These funds are reserved or encumbered for future work permitted per the EESTATS CPUC Guidance Document and EE decision (D.15-10-025).

⁴ The amounts reported in Committed Funds include SDG&E's Energy Efficiency Finance Pilots remaining balance from unspent funds 2013-2017, or funding requested from Balancing Accounts as approved in Advice Letter 3147-E/2625-G. The remaining balance/unspent funds associated with the Financing Pilots at the end of 2020 cycle is \$5,134,983.

⁵ Non-resource committed funds includes EM&V. SDG&E continues to reconcile EM&V expenditures with the Energy Division staff.

SECTION 8 - SHAREHOLDER PERFORMANCE INCENTIVES

The purpose of the following table (Table 8) is to report SDG&E’s forecasted and actual efficiency savings and performance incentives.

San Diego Gas & Electric, 2020			
Table 8 Shareholder Incentives (ESPI)			
Program Year	2018	2019 (a)	2020 (a)
Forecast	\$4,500,000	\$3,500,000	\$3,372,986
Actual	\$3,314,957	\$1,311,641	N/A

(a) **D.20-11-013 at p. 24.** Any 2019 earnings claims that would be subject to the 2021 ESPI advice letter will be subject to the moratorium adopted herein and NOT recoverable through retail rates. We consider this treatment of 2019 earnings claims to be fair to the IOUs even though it means not all 2019 earnings will be subject to recovery. **And Finding of Fact 32:** 32. In view of the time lag between when program activity occurs and when ESPI awards are paid out for the activity, the adopted moratorium will apply to some program activity for 2019 and 2020 that occurred prior to the effective date of this decision.

SECTION 9 - METRICS TABLE

The purpose of the following table (Table 9) is to show portfolio savings for numerous key elements based on the activity of the EE portfolio and the service territory customer population.

SECTION 10 - CAP & TARGET

The purpose of the following table (Table 10) is to show the annual Cap & Target performance of the energy efficiency portfolio by budget category (Administrative, Marketing & Outreach, Direct Implementation, and EM&V) as defined in D.09-09-047 and clarified in D.12-11-015.

Energy Efficiency Cap And Target Expenditure Report							
Line	Budget Category	Expenditures			Cap & Target Performance		
		Non-Third-Party Qualifying Costs (including PA costs and old-definition 3P/GP contracts that don't meet the new definition)	Third-Party Qualifying Costs ² (including SW)	Total Portfolio	Percent of Budget	Cap %	Target %
1	Administrative Costs						
2	IOU ¹	\$ 1,627,801	\$ 11,489	\$ 1,639,289	1.9%	10.0%	
3	Non-IOU, Third-Party & Partnership ²	\$ 470,275	\$ 30,000	\$ 500,275	5.0%		10.0%
4	Target Exempt Programs ³	\$ 2,261,096	\$ -	\$ 2,261,096			
5	Marketing and Outreach Costs						
6	Marketing & Outreach ⁴	\$ 1,704,686	\$ -	\$ 1,704,686	2.0%		6.0%
7	Statewide Marketing & Outreach ⁵	\$ 2,073,481	\$ -	\$ 2,073,481			
8	Direct Implementation Costs						
9	Direct Implementation (Incentives and Rebates)	\$ 6,914,897	\$ -	\$ 6,914,897			
10	Direct Implementation (Non Incentives and Non Rebates)	\$ 10,534,161	\$ 99,089	\$ 10,633,250	12.6%		20.0%
11	Direct Implementation Target Exempt Programs ³	\$ 19,323,901	\$ 1,836,438	\$ 21,160,339			
12	EM&V Costs (Investor Owned Utilities & Energy Division) ⁶	\$ 469,350	\$ -	\$ 469,350	0.6%	4.0%	
13	Total	\$ 45,379,648	\$ 1,977,016	\$ 47,356,663			
14	2020 Authorized Budget ⁷	\$ 72,572,129	\$ 11,951,996	\$ 84,524,125			
15	Third-Party Implementer Contracts (as defined per D.16-08-019, OP 10) ^{8,9}	\$ 90,714	\$ 1,965,527	\$ 2,056,241	2.5%		40.00%

1. IOU administrative costs (excluding non-IOU, third party and/or government partnership programs, and target exempt programs) are limited to 10 percent of total EE budgets based on D. 09-09-047.
2. New Third party program definition per D.16-08-019, OP 10. For Row 3 of this table, the "Non-IOU, Third Party & Partnership" administrative costs under the "Non-Third Party Qualifying Costs" column are non-IOU costs for programs that met the old Third Party definition prior to the transition to the new third party definition. Third-party and government, direct costs are limited 10 percent of total third-party and government partnership budget based on D. 09-09-047.
3. Target Exempt Programs include: Codes & Standards, Emerging Technologies, Workforce Education & Training, Integrated Demand Side Management, CALSPREE Energy Advisor, Customer Services-Audit, Financing, and all non-resource Local, Government Partnership, and Third-Party programs. In 2020, LGP's were reclassified as non-resource programs and are therefore exempt programs per Advice Letter 3429-E-A Page 7.
4. Marketing and Outreach costs are limited to 6 percent of total EE budgets based on D. 09-09-047. Statewide Marketing & Outreach (SW ME&O) is excluded from the Marketing and Outreach cost target calculation per D.13-12-038, at p. 82.
5. SDG&E's Statewide ME&O 2020 budget of \$3,038,433 was approved in AL 3498-E/2835-G. This includes both SDG&E's administrative costs and the SW ME&O implementer costs.
6. EM&V budget is 4 percent of the total portfolio budget which excludes SW ME&O. EM&V uses \$81,485,692 as its denominator (2020 Authorized Budget of \$84,525,125 less the SW ME&O budget of \$3,038,433).
7. 2020 Authorized Budget per EE: AL 3429-E/2797-G; SW ME&O: AL 3451-E/2818-G. SDG&E's 2020 Authorized Budget of \$84,524,125 includes SW ME&O budget of \$3,038,433. As directed in the Energy Efficiency Policy Manual Version 6 March 2020, Appendix F, this total includes SW ME&O and excludes BayREN, MCE, and 3C-REN budgets and is the denominator used to calculate the Admin, Marketing, and Direct Implementation Non-Incentives Cap & Target percentages.
8. SDG&E's percentage for Third-Party Implementer Contracts uses \$81,485,692 as its denominator (2020 Authorized Budget of \$84,525,125 less the SW ME&O budget of \$3,038,433).
9. SD&E's Third-Party Implementer Contracts (as defined per D.16-08-019, OP 10) includes both SDG&E local and Statewide third-party contracts.

SECTION 11 - LOCAL PROGRAM THIRD-PARTY BUDGETS

The Purpose of Table 11 is to demonstrate SDG&E's Third Party Program solicitations compliance with the following Ordering Paragraphs (OP) of Commission D.18-01-004:

OP 1: Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Gas Company shall ensure that their energy efficiency portfolios contain third party designed and implemented programs with the following minimum percentages by the dates given:

- a. At least 25 percent by December 31, 2018. For 2018 only, the percentage requirement may also include third party programs under the definition of third party previously in place prior to the adoption of Decision 16-08-019.
- b. At least 40 percent by December 31, 2020
- c. At least 60 percent by December 31, 2022

OP 8: Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Gas Company shall include in their energy efficiency annual reports, beginning with the 2018 reports, a listing of all third party contracts in place, along with at least the following information (with confidential versions, if necessary).

- a. Name of counterparty
- b. Length
- c. Dollar value (aggregated, if necessary, for public versions)
- d. Market segment, sub-segment, sizes, and types of customers addressed

In addition, consistent with Public Utilities Code Section 1613, Table 11 demonstrates SDG&E's compliance with D.18-01-004 OP 1 by incorporating the authorized AB 841 programs budget which are considered qualifying third party programs as defined by D.16-08-019.

3. AB 841

PY 2020 ABAL Budget*	\$	81,485,692.00		
Authorized 2020 Budget Cap	\$	116,456,311.00		
Difference	\$	34,970,619.00		
		2021	2022	2023
Applicable %		80%	70%	60%
Funding from applicable %	\$	27,976,495.20	\$ 24,479,433.30	\$ 20,982,371.40
Funding from carryover	\$	25,000,000.00		
Total AB 841 Funding	\$	52,976,495.20	\$ 24,479,433.30	\$ 20,982,371.40

* see "IOU Budget Recovery Request"

4. Annual Budget

Sector/Category	PY 2021 Budget
Residential	\$ 15,477,686.24
Commercial	\$ 46,493,452.49
Industrial	\$ 2,758,977.59
Agriculture	\$ 1,287,650.77
Emerging Tech	\$ 1,577,071.96
Public	\$ 2,911,245.24
WE&T	\$ 4,776,793.34
AB 841 Allocations*	\$ 52,976,495.20
Finance	\$ 437,136.93
EM&V	\$ 3,280,009.60
Codes and Standards	\$ 3,000,215.85
Total	\$ 134,976,735.22

*Allocations budgeted to the SRVEVR and SNPFA programs per AB 841. This number should equal the Total AB 841 funding found in section 3 of this worksheet

5. 40% & 60% Compliance

Component	2021	2022	2023	2024	2025
Local 3P Programs	\$ 30,193,964.50	\$ 35,433,964.50	\$ 40,823,964.50	\$ -	\$ -
Statewide 3P Programs	\$ 7,877,649.16	\$ 11,264,831.90	\$ 10,597,511.49	\$ 3,551,007.49	\$ 2,479,647.49
AB 841	\$ 52,976,495.20	\$ 24,479,433.30	\$ 20,982,371.40		
Total 3P-Qualified Budget	\$ 91,048,108.86	\$ 71,178,229.70	\$ 72,403,847.39	\$ 3,551,007.49	\$ 2,479,647.49
Annual Budget	\$ 134,976,735.22				
% Third Party Achieved	67%				
Requirement	40%				
In Compliance (T/F)	TRUE				

6. 25% Compliance

	6/30/2020
Compliance Deadline*	6/30/2020
Local 3P Programs (by deadline)	\$ 30,193,964.50
Statewide 3P Programs (by deadline)	\$ 2,291,850.93
Total 3P-Qualified Budget	\$ 32,485,815.43
Annual Budget	\$ 82,000,240.02
% Third Party Achieved	40%
Requirement	25%
In Compliance (T/F)	TRUE

*For SDG&E and PG&E, deadline is 6/30/2020. For SCE & SoCalGas, deadline is 9/30/2020

Footnote (1): The start up costs incurred in 2020 are included in the 2021 budget so that the budget equals the total contract amount. For this program it is \$100k
 Footnote (2): The start up costs incurred in 2020 are included in the 2021 budget so that the budget equals the total contract amount. For this program it is \$50k

Footnote (3): PG&E included these SW 3P-qualified contracts as part of its compliance calculation towards the 25% milestone because they were under contract at the time of the June 30, 2020 compliance deadline. Applicable budgets are included in 2021 budget column O, however they were 2020 budgets and contracts expired at end of 2020

Footnote (4): PG&E included these SW 3P-qualified contracts as part of its compliance calculation towards the 25% milestone because they were under contract at the time of the June 30, 2020 compliance deadline. Applicable budgets are included in 2021 budget column O, however they were 2020 budgets and the contracts were replaced or discontinued at the end of 2020

Footnote (5): SDG&E reports the actual amount contributed to PY2021 for SW C&S as outlined in the 2021 SW IOU co-funding agreement.

SECTION 12 - PG&E's MARKETPLACE METRICS

This table is not applicable to SDGE. It is not included in the SDGE annual report.