# AESC, Inc.



# DRAFT

# Implementation Plan

# **Measured Savings Program**

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# 1. Program Overview

Alternative Energy Systems Consulting's (AESC) Measured Savings Program ("Program") is an Aggregator-delivered, pay-for-performance program designed to deliver measurable impacts at the meter through demand side interventions for Southern California Edison (SCE) commercial customers. Program Enrolled Aggregators have primary responsibility for identifying and enrolling customers and are paid based on weather-normalized hourly energy impacts, measured at the customer meter over a one-year measurement and verification (M&V) period, using primarily population-based Normalized Meter Energy Consumption (Pop-NMEC), paired with some site-specific NMEC (Site-NMEC). Program incentives are correlated to Total System Benefit (TSB), a measure of lifetime grid-avoided costs, and reward projects that deliver summer peak kW savings¹, as well as measures that have longer Effective Useful Life (EUL). AESC has sub-contracted with Resource Innovations (RI), Demand Side Analytics (DSA), and ASK Energy (ASK) to support program implementation. Collectively these partners are the "AESC Team."

The Program's objective is to deliver cost-effective TSB.

# 2. Program Attributes

	Budget and Savings	Information
1	Program Name	Measured Savings Program
2	Program ID Number	SCE_3P_2025MAP_002
3	Program Implementer	Alternative Energy Systems Consulting, Inc. (AESC)
4	Portfolio Administrator	Thomas Pasker, SCE
5	Program Implementer Type	Third-Party Solicited
6	Portfolio Segment	Resource Acquisition
7	Program Budget by Year	2025: \$3,200,273 2026: \$8,404,419 2027: \$8,394,279
8	Program Duration	February 11, 2024 – October 31, 2027
9	Total System Benefit (TSB)	2025: \$2,966,257 2026: \$11,600,862 2027: \$11,651,651 Total: \$26,218,770
10	CO2 Lifecycle Gross	2025: 11,341 2026: 41,479 2027: 39,178 Total: 91,998

<sup>&</sup>lt;sup>1</sup> Summer Peak is defined as June through Sept, 4 pm - 9pm.

	<b>Budget and Savings</b>	Information
11	CO2 Lifecycle Net	2025: 10,774 2026: 39,405 2027: 37,219 Total: 87,398
12	CO2 (First Year Gross)	2025: 1,311 2026: 5,004 2027: 4,707 Total: 11,022
13	CO2 (First Year Net)	2025: 1,246 2026: 4,754 2027: 4,472 Total: 10,472
14	kW (First Year Gross)	2025: 536 2026: 2,022 2027: 1,985 Total: 4,543
15	kW (Net)	2025: 509 2026: 1,921 2027: 1,886 Total: 4,316
16	kW (Gross)	2025: 536 2026: 2,022 2027: 1,985 Total: 4,543
17	kWh (Lifecycle Gross)	2025: 36,573,999 2026: 137,927,367 2027: 135,447,774 Total: 309,949,140
18	kWh (Lifecycle Net)	2025: 34,745,299 2026: 131,030,999 2027: 128,675,385 Total: 294,451,683
19	kWh (First Year Gross)	2025: 3,403,710 2026: 12,836,025 2027: 12,605,265 Total: 28,845,000

	Budget and Savings	Information
20	kWh (Net)	2025: 3,233,525 2026: 12,194,224 2027: 11,975,002 Total: 27,402,750
21	kWh (Gross)	2025: 3,403,710 2026: 12,836,025 2027: 12,605,265 Total: 28,845,000
22	Therms (Lifecycle Gross)	2025: 288,216 2026: 1,086,917 2027: 1,067,377 Total: 2,442,510
23	Therms (Lifecycle Net)	2025: 273,805 2026: 1,032,571 2027: 1,014,008 Total: 2,320,384
24	Therms (First Year Gross)	2025: 36,432 2026: 137,393 2027: 134,923 Total: 308,748
25	Therms (Net)	2025: 34,611 2026: 130,523 2027: 128,177 Total: 293,311
26	Therms (Gross)	2025: 36,432 2026: 137,393 2027: 134,923 Total: 308,748
27	Program Cost Effectiveness: Total Resource Cost (TRC)	2025: 0.79 2026: 1.13 2027: 1.15 Total: 1.14
28	Program Cost Effectiveness: Program Administrator Cost (PAC)	2025: 0.95 2026: 1.43 2027: 1.44 Total: 1.43
29	Market Sector(s)	Commercial, Public
30	Program Type	Resource Acquisition

	<b>Budget and Savings</b>	Information
31	Delivery Type	Downstream
32	Intervention Strategies	Market Access Program
33	M&V Methods	NEMC-Population, NMEC-Site

# 3. Implementation Plan Narrative

#### 1. Program Description

Describe the program, its primary purpose (resource acquisition, equity, market support, or codes and standards), rationale, and its objectives.

The Measured Savings Program "Program" uses primarily a Population NMEC Approach, paired with the NMEC-Based Site-Specific Approach by way of exception, to measure, verify, and pay for TSB delivered to the grid. Program enrolled Aggregators will have primary responsibility for identifying and enrolling customers that meet program requirements and delivering TSB. Aggregators will work with the Program to confirm estimated TSB and receive payments based on measured TSB as determined by CET output.

#### Program Rationale:

The Program design leverages the power of NMEC combined with AESC's existing M&V platform, Praxis, and introduces targeted innovations (e.g., upfront aggregator payment at project installation, no-cost access to AESC's Praxis platform) to maximize program impacts and support broad aggregator and marketplace participation. By standardizing the Program delivery tools and improving the efficiency of the project approval process, the Program will motivate aggregators and customers through its ease of participation and streamlined process, resulting in increased project volume and savings.

#### **Program Objectives:**

The Program is designed to achieve the following objectives:

- Increase aggregator participation and portfolio scale through accelerated processes for project intake and approval.
- Optimize peak and net peak kW, TSB, and grid benefits through a carefully targeted regional, sector, site, and aggregator strategy, and TSB-aligned incentives. Peak kW means a kilowatt during the hours of 4 P.M. 7 P.M. on business days between June 1st to September 30th. Net Peak kW means a kilowatt during the hours of 7 P.M. 9 P.M. on business days between June 1st to September 30th.
- Maximize available aggregator incentives through efficient program operations.
- Support project referral pathways through partnerships with non-resource programs.
- Increase eligible sites by allowing NMEC-Based Site-Specific Approach (on an exception basis) for high value projects that don't fit the population format and allowing sites with solar net metering to participate.
- Improve savings performance by providing aggregators access and training to view their project and portfolio savings in AESC's M&V platform Praxis, and through flagging underperformance.
- Provide market stability through transparent, equitable project and budget pipeline management.

#### 2. Performance Tracking

List the contractual targets and the associated numeric values used to quantify and track program progress and success. This includes TSB for all relevant programs. The contractual targets may include the common metrics, equity and market support indicators, and for RENs, unique value metrics, as relevant.

The primary metrics for tracking program progress will be the TSB, energy savings (kWh, therm), and TRC, all of which are included in the reporting requirements.

Year	Total System Benefit	TRC
2025	\$2,966,257	0.79
2026	\$11,600,862	1.13
2027	\$11,651,651	1.15
2028	\$0	0.00
Total	\$26,218,770	1.09

#### 3. Program Delivery and Customer Services

Describe how the EE program will deliver offerings to the market, including program strategies/tactics, delivery types, and targeted market/customer group; how it will reach customers, including those in CPUC-defined underserved, hard-to-reach, and/or disadvantaged communities<sup>5</sup> (if applicable). Describe the timeline and strategy for customer acquisition. Describe all services, incentives and tools that are provided to participants. If applicable, describe planned coordination between this program and other EE programs administered by other PAs in the same sector or segment.

The Program will deliver savings with the following approach:

#### **Program Strategies/Tactics:**

The Implementer team has a network of hundreds of existing and potential aggregators to target and engage that will include:

- Regional aggregators serving targeted climate zones (CZs) and customer channel partner programs.
- Retrocommisioning (RCx) providers and Energy Service Companies (ESCOs) serving commercial and municipal, university, school, and hospital (MUSH) markets, not covered by other statewide energy efficiency programs.
- National service providers servicing high potential markets including big box retail, grocery, convenience, auto dealerships, and hotels.
- Load shift-enabling aggregators such as battery storage and electric vehicle (EV) charger installers (with existing customers not currently shifting load), DR providers, HVAC control and thermostat providers, and

<sup>&</sup>lt;sup>2</sup> D.18-05-041, Attachment A.

<sup>&</sup>lt;sup>3</sup> D.23-06-055, pages 59-65, Conclusion of Law 36.

<sup>&</sup>lt;sup>4</sup> D.19-12-021, pages 2, 23.

D.23-06-055, Sections 7.2-7.3 and Conclusion of Law 30-33.

heat pump and heat pump water heater (HPWH) installers. Load shift projects will be bundled with electric EE savings projects to meet program M&V requirements.

- Third-party program installers who may have project leads that are not a good fit for an existing program.
- "Super-aggregators" who have market specialty and can assemble portfolios of customer projects, coordinate
  multiple subcontractors on a comprehensive project, and assume performance risk or facilitate financing for
  up-front installer costs.

Outreach strategies will include direct marketing and emails to existing aggregators and networks, webinars, newsletters, social media campaigns, contractor organization conference booths and presentations, and industry association marketing partnerships.

Key program benefits promoted will include enhanced incentive levels, streamlined application and incentive reservation processes, and self-service aggregator tools including the Customer Site Eligibility Tool (CSET), Value Estimator Tool (VET), and Praxis measure calculators. The Team will also highlight financing solutions and the value of meter-based M&V to identify performance backsliding. Outreach activities, status, and notes will be centrally tracked within a program-specific, separate component of AESC's existing Salesforce database. Enrolled aggregators will be provided program-approved co-marketing materials (e.g., Program logos, Program enrollment badges) and will be added to the Program's public-facing aggregator page with links to their website.

#### **Market Channels**

Projects will be marketed and delivered by enrolled and trained commercial aggregators, targeted, and recruited based on technology and project focus and sector segmentation. Aggregator sales efforts will be supported through Program marketing efforts that are designed to prime awareness for high potential customer markets and sites, and to generate inbound project leads that can be referred to the enrolled aggregator network.

#### **Targeted Market / Customer Group**

The Program will serve commercial segments and public customers not served by other resource programs. The Program will be available for participation to any Population NMEC qualifying commercial site but will target currently underserved and high potential sectors in SCE's territory with long operating hours and high TSB potential, including:

- Chain account big box retail, warehouse, grocery, convenience, pharmacy, food service and lodging facilities.
- Certain public sector facilities served by non-resource Regional Energy Network (REN) programs, including police, fire, jails, libraries, recreation, and emergency operations.
- Targeted projects and end-uses include comprehensive multi-measure retrofits, HVAC, refrigeration, retrocommissioning (RCx), lighting, and load shifting when paired with energy efficiency (EE).
- The Program will focus on recruiting aggregators and projects in Climate Zones (CZ) 8, 9 and 10 which are the most populous and have high HVAC loads in inland regions; however, the Program will serve all climate zones in SCE's service territory.

#### Disadvantaged Communities (DAC) and Hard-To-Reach (HTR)

Initial program targeting and market priming will help drive DAC and HTR participation, including targeting aggregators serving DAC territories and HTR markets. The incentive structure is designed to give Enrolled

Aggregators flexibility to design an offering that attracts all customers, including those considered DAC and HTR.

DAC participants will be identified by comparing zip codes to CalEnviroScreen, and HTR customers will be identified via self-certifying questions in the project application process and customer surveys.

DAC is defined as the highest 25th percentile of CalEnviroScreen 3.0 scores for health and safety of air quality. For non-residential SCE customers in a DAC or outside the Los Angeles basin, a customer is considered HTR if they lease the building, speak a primary language other than English, or are a small business consisting of 25 or fewer employees, have a peak demand of less than 20 kW, or consume less than 10,000 therms annually.

#### **Customer Acquisition Timeline**

The program will start enrolling Aggregators upon launch, in early April. Once enrolled, Aggregators will being their sales processes that result in customer acquisition. The Program anticipates customers begin enrolling in the program in mid- to late-Q2 2025, and enrollment will continue until the customer enrollment period ends, in Q4 2027.

#### 4. Program Design and Best Practices

Describe the specific program strategies/tactics to reduce the identified market barriers for the targeted customer group and/or market actor(s) to achieve program goals and objectives. Describe how the program approach constitutes "best practices" and/or incorporates "lessons learned." Include descriptions of key software tools that are significant to program strategy and implementation, including audit tools. Provide references where available.

The Program is informed by the AESC team's extensive technical, policy and third-party implementation experience in California and offers strategies, tactics, and best practices to address key industry barriers described below.

Barriers	<b>Program Strategies and Tactics</b>	Best Practices and Lessons Learned
Eroded savings and declining program participation due to aggressive code updates, declining net-to-gross (NTG) values, and increasingly stringent custom policies.	Measured savings through Population NMEC enables the full value of energy projects to be measured and incented with a higher NTG value, increasing claimable benefits, incentives, and market engagement.	Aggregators will be trained by the Program's aggregator success team during Program enrollment about how the incremental market benefits of Population NMEC empowers aggregators to communicate value to the market, offers higher incentive benefits to customers, and increases project sales.
Deemed and custom programs do not provide customers or trade allies a program-integrated way to measure and verify project savings achieved at the customer site, leading to customer distrust of values.	AESC's M&V platform, Praxis, offers aggregators on-demand access to view measured savings performance against forecast for their installed projects and portfolios.	By AESC sending flags to aggregators when projects are underperforming, aggregators can remedy performance issues in the field to improve realization of benefits, leading to higher savings and customer and aggregator satisfaction.
Not all sites are qualified for Population NMEC.	Eligibility Screening: The Program will pre-screen commercial accounts and meter data for sector, Coefficient of Variation of the Root Mean Square Error (CV(RMSE)), and data sufficiency to provide eligibility parameters for AESC's Customer Site	AESC's web-based CSET tool provides instantaneous Population NMEC site eligibility results to Aggregators, based on two site-specific inputs, which has proven critical to enable efficient and targeted aggregator sales and eliminates "dry holes". The Program may allow NMEC-Based Site-

	Eligibility (CSET) tool. The tool will also screen for double dip.	Specific Approach (on an exception basis) for high value projects that don't fit the population format.
Not all markets or projects are ideal for Population NMEC.	Propensity Modeling and Customer Targeting: Program will apply savings propensity modeling to meter data to identify high potential customers and inform Program targeting, including in CZs 8, 9, 10, the most populous CZs with a high concentration of HVAC loads.	Recommended measure bundles for targeted segments, provided to aggregators in training and program resources with an EE measure mix, can be used to further optimize TSB impacts and cost-effectiveness.
Long project approval and incentive payment timelines de-motivate aggregators from participating in MAP and erode Program savings potential.	Accelerate Approvals and Payment Processes: Implement proven accelerated project intake and approval processes. Program will coordinate with SCE to ensure that data fields required for forecast and savings tracking are captured, and to establish program processes and systems to allow payment of aggregator incentives within 30 days of AESC receipt of payment from SCE.	By leveraging experienced engineers, standardized processes and review checklists, complete Population NMEC project application packages and installation packages can be reviewed by the AESC team in fewer than 5 days each, leading to higher aggregator engagement, satisfaction and project throughput.
Solar Exclusion in MAP leads to lost project opportunities.	Allow Solar Net Metered Sites to Participate: AESC's Praxis M&V platform allows sites with solar to participate, as long as solar generation data is provided by the customer and savings are not expected to be capped by the required Non-IOU Fuel Source Analysis.	Solar production data is aggregated with the utility meter net import consumption to calculate the "building load" which is the basis of the regression model and M&V. Non-IOU Fuel Source Analysis is conducted for solar projects to verify savings do not exceed monthly utility import energy per CPUC guidance.
Leaving program marketing to aggregators alone leads to lost project opportunities.	Program Marketing to Customers: While aggregators will maintain primary responsibility for customer sales and project delivery, the Program will increase market awareness through outreach to priority and underserved markets and coordination with commercial market support and non-resource programs to identify projects and generate program referrals for the aggregator network.	Targeting high TSB customers and market segments in marketing efforts can increase the impact of projects received.
The aggregator market is still learning how to leverage pay-for performance, TSB-based incentive programs.	Comprehensive Aggregator Support: Through aggregator training, ongoing support from the Aggregator Success Team, streamlined and intuitive program tools and processes, and comarketing support, the Program will increase confidence and capacity of new market players to capture NMEC and TSB benefits while delivering added value to customers and SCE.	Assigning dedicated Aggregator Success Managers to aggregators provides a single point of contact to ensure that questions and barriers can be quickly addressed and resolved.  Instantaneous CSET tools for eligibility streamlines intake. An intuitive, simple Value Estimator Tool incentive calculators makes it easy for aggregators to translate measure-related kWh and therms to TSB

First-year kWh accounting and incentive structures do not value true avoided cost grid benefits or longer life measures, resulting in lower incentives.	TSB Incentive Structure: A TSB-based incentive, along with bonus value for summer 4-9pm savings, rewards longer Effective Useful Life (EUL) measures and encourages loadshifting with EE savings.	The Program incentive structure naturally motivates Aggregators to identify projects that save energy during highest value periods – peak and net peak. Reinforcing the message of TSB Incentive Structure to Aggregators throughout the Program lifecycle allows the Program to maintain focus and encourage projects resulting in true avoided grid benefits.
Lack of funding visibility can stall the market and erode aggregator confidence.	Transparent Funding Pipeline: The Program will carefully manage the incentive forecast, maintain a transparent funding tracker, and provide regular funding updates through aggregator newsletters and communications.	Once 90% of incentive funds are reserved, the Program will increase the frequency of updates to SCE and aggregators.

#### **Best Practices**

The Program adopts several key best practices. Firstly, measuring, and paying upon, verified savings at the meter rather than engineering estimates. Secondly, providing ongoing access to site-level performance so Aggregators can address any performance issues outright to realize maximum savings and support continued customer engagement. Lastly, balancing cost effectiveness requirments and Aggregator risk by considering cost-effectiveness (e.g. TRCNoAdmin) ratios when approving and enrolling projects.

The key program strategies and tactics to reduce barriers for program participation are:

- Matching customers with Aggregators who are best-equipped to meet their needs, and tying those needs to grid-optimized solutions (as valued in the avoided cost calculator (ACC) adopted by the Commission).
- Leveraging a key benefit of population-level NMEC programs the inclusion of to-code savings opportunities to reduce "stranded" savings opportunities.

#### 5. Innovation

(Required for all IOU EE programs designed and implemented by a third party.)<sup>6</sup> Describe the innovative elements that have been incorporated into the program, i.e., advancing a technology, marketing strategy, or delivery approach in a manner different from previous efforts.<sup>7</sup> Explain how these will improve program outcomes and if relevant, minimize lost opportunities for promoting other integrated demand side management (IDSM) energy reduction efforts. Describe how the performance of these innovative elements will be measured or assessed.

The Program introduces innovation in the categories of Program Delivery, Market Strategies, and Technology Approaches that lead to increases in sector savings, overall market potential, and an overall cost-effective portfolio.

• Enhanced targeting of high value market segments and CZs, recruitment of regionalized aggregators, and promotion of cost-effective measures by market segment will increase the volume and average summer peak impacts of enrolled projects. The Program will analyze SCE customer data to prequalify high potential sector

<sup>6</sup> D.16-08-019, Section 5.2 and Conclusion of Law 26.

See "Innovation and Integrated Demand Side Management (IDSM) References" document at https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/rolling-portfolio-program-guidance.

sites and create a database of potential targets that inform aggregator and partner marketing and outreach strategies.

- Access to AESC's Praxis measure calculators enables aggregators to quickly generate accurate customerspecific existing conditions baseline savings estimates for measures including HVAC, lighting, fans, and VFDs. Calculators accelerate the project development and sales cycle and streamline the application and review processes.
- M&V innovations through AESC's Praxis platform automatically generate NMEC-Based Site Specific M&V Plans, enable sites with solar to be modeled and accepted, and support non-CalTRACK modeling with multiple regression model forms (machine learning, simple linear regression, 3P, 4P, and 5P).
- **Enablement of refrigerant measures** and refrigerant benefits according to the approved Refrigerant ACC provide incremental TSB benefits.
- **Promotion of stackable IRA and regional incentives and tax credits** to aggregators reduces customer copays and project viability, while improving cost effectiveness.
- **Promoting market ready but underutilized technologies**, informed by the Program team's deep expertise in Emerging Technology research and CalNEXT will offer opportunities for emerging technologies to be measured at scale.

#### 6. Pilots

If applicable, describe any pilot elements or projects that are part of this program, including what is being tested and why and addressing the potential for successes to be identified, replicated and scaled more broadly. Describe how lessons learned in the pilot will be gathered, applied, and shared.

There are no pilot projects that are part of this program.

# 7. Workforce Education & Training (WE&T) 8

(Applicable to WE&T programs only.) Describe how the program will support workforce, education, and training to:

- a. Expand/initiate partnerships with entities that do job training and placement.
- b. Require placement experience for any new partners in the workforce, education, and training programs and new solicitations.
- c. Require "first source" hiring from a pool of qualified candidates before looking more broadly, beginning with self-certification; and
- d. Facilitate job connections by working with implementers and contractor partners, and utilizing energy training centers.

<sup>8</sup> D.18-05-041, Page 20-21 and Ordering Paragraph 7.

WE&T is not a component of the Program.

# 8. Workforce Standards <sup>9</sup>

Identify all relevant workforce standards that the Implementer deems applicable to the Program, including any specific skills certification and/or broader occupational training and experience for the following:

- a. HVAC Measures: Installation, modification, or maintenance of non-residential HVAC measures with an incentive of \$3,000 or more are required to be installed by workers or technicians that meet one of the following criteria:
  - 1. Enrolled in and/or completed an accredited HVAC apprenticeship, or
  - 2. Completed more than five years of work experience at the journey level per California Department of Industrial Relations definition, passed competency tests, and received specific credentialed training, or
  - 3. Has a C-20 HVAC contractor license issued by the California Contractor's State Licensing Board.
- b. Advanced Lighting Control Measures:
  - i. Installation of non-residential lighting control measures with an incentive of \$2,000 are required to be installed by installation technicians who have completed an International Association of Lighting Management companies (NALMCO) Certified Lighting Controls Professional (CLCP) certification.

Per Decision 18-10-008, workforce requirements will apply to this program pertaining to large non-residential projects including heating, ventilation, and air-conditioning measures, as well as lighting controls, intended to improve installation quality and savings impacts of incented measures.

**HVAC:** The HVAC Workforce Standard will apply to the program as HVAC equipment is likely to be a measure that will be provided incentives, and incentives can easily exceed the minimum threshold of \$3,000 for large projects. Additionally, a significant amount of HVAC savings will likely involve controls work.

The Program will include workforce requirements in all Aggregator Participation Agreements, including language that all contractors should be validated to maintain the following minimum requirements:

- Completed a California or federal accredited HVAC apprenticeship.
- Be enrolled in a California or federal accredited HVAC apprenticeship.
- Completed at least five years of work experience at the journey level as defined by the California Department of Industrial Relations, passed a practical and written HVAC system installation competency test, and received credentialed training specific to the installation of the technology being installed.
- Has a C-20 HVAC contractor license from the California Contractor's State License Board.

D.18-10-008, Ordering Paragraph 1-2 and Attachment B, Section A-B, Page B-1.

• Aggregator marketing and training will include information on the availability of the BOC training available through SCE's WE&T programs.

**Lighting:** The Lighting Controls Workforce Standard applies to the Program as lighting controls are likely to be included in projects and will be integral to many DR strategies.

The Program will include workforce requirements in all Aggregator Participation Agreements stating Installation of non-residential lighting control measures with an incentive of \$2,000 are required to be installed by installation technicians who have completed an International Association of Lighting Management companies (NALMCO) Certified Lighting Controls Professional (CLCP) certification, ensuring that controls measures are installed properly, and are commissioned to perform as designed.

# 9. <u>Disadvantaged Worker Plan: 10</u>

(Applicable for programs that directly involve the installation, modification, repair, or maintenance of EE equipment.) Describe how the program will provide Disadvantaged Workers with improved access to career opportunities in the EE industry and the method that will be used for tracking this population in order to satisfy metric reporting requirements.

The Program will be delivered by recruited and enrolled aggregators. As the program is open to participation by any qualified aggregators who agree to the terms and conditions of the Aggregator Participation Agreement, there are opportunities to create and facilitate jobs and career opportunities for disadvantaged workers. The program will seek to recruit aggregators located in SCE's Disadvantaged Communities, who are more likely to employ disadvantaged workers. The program will also seek to cross-promote the program to individuals participating in local workforce training programs targeting disadvantaged workers. The program will survey aggregators with completed projects on their hiring of disadvantaged workers and will record responses in the Program database for easy reporting.

#### 10. Market Access Programs:

(Applicable to market access programs only.) Describe how the market access program interacts with the rest of the PA's EE portfolio. Describe the possible impacts with downstream retrofit programs. <sup>11</sup>

To best serve SCE customers, the AESC Team will work with SCE, and other third party and local government programs to maximize resource efficiency and ensure there are no lost opportunities for energy savings. This type of coordination also helps leverage marketing and administrative costs across the various programs presenting a coordinated message to SCE customers. In cases where other programs or opportunities may overlap or conflict, the Program will coordinate with Measured Savings Program Contract Manager. Projects will be screened for double-dip participation during the pre-installation review process. Additionally, the customer application terms and conditions will indicate that the customer may not participate in another CPUC-funded EE program during the 12-month M&V period.

Typical situations where the AESC Team will coordinate closely with the SCE Contract Manager and other SCE program offerings may include:

• The Customer does not meet Program eligibility requirements. In this case the Program will confer with the SCE Contract Manager to have the opportunity (re)assigned.

D.18-10-008, Attachment B, Section D, page B-9.

<sup>&</sup>lt;sup>11</sup> D.23-06-055, Ordering Paragraph 26.

- The customer may fall within the eligibility scope of multiple programs, requiring a 'best fit' assessment by SCE staff.
- The Program gauges the customer's energy goals go beyond the program's scope and therefore merits the introduction of a compatible program offering a different approach.

In the case of program overlap or for the benefit of customer satisfaction, the Program will coordinate with CCAs, RENs, and other Program Administrators. See the Program Manual for a listing of organizations that may need coordination.

#### 11. Additional Information

Describe additional information required by CPUC decision, resolution, or ruling, as applicable. Indicate decision, resolution, or ruling and page numbers.

Not Applicable



# 4. Program Manual

Measured Savings Program SCE\_3P\_2025MAP\_002

Version 1.0

Updated: March 13, 2025

#### Eligible Measures or measure eligibility

The AESC Team will have the authority to determine project, measure, and Aggregator eligibility. In cases where program policies may not resolve the situation or an exception may be considered, the AESC Team will present to SCE and receive approval prior to action. In addition to the eligibility requirements below, the eligibility rules in the most recently released version of the CPUC NMEC Rulebook also apply. 12

#### **Measure Eligibility**

- As a meter-based Program, the Program will measure savings at the whole-building level. Any measure that reduces energy use is qualified for the program, including to-code, Industry Standard Practice, SCE expired measures, custom measures (accelerated replacement, add-on equipment, weatherization, behavioral, retrocommissioning (RCx), and operational (BRO)), and deemed measures. New construction and added load measures are not allowable.
- The Program can support load shifting strategies under certain guidelines that comply with the Program costeffectiveness and modeling requirements..
- The AESC Team may assess the eligibility of any potential participants using data and guidance provided by SCE. If the AESC Team and Aggregator seek exceptions to any of the eligibility criteria, the AESC Team will present the request to the Program Contract Manager, who will ultimately determine whether the customer may participate. If the exception is granted, SCE will provide written approval for any projects which conflict with the above criteria. Aggregators will document installed measures and will provide that information as part of their reporting.

# **Population-NMEC Screening**

Customers must meet CV(RMSE) and data requirements outlined in 4.2.2.

The Program does not perform audits. However, in the process of customer acquisition, Aggregators will verify with customers that they have not installed, nor do they plan to install, major new load additions or subtractions, solar PV, battery storage, or EV charging in the reporting year (post-intervention unless pre-approved by the AESC Team).

#### **Site-NMEC Screening**

Projects may be screened for Site-NMEC fit and selected on a case-by-case basis. Prime candidates for Site-NMEC pathway may include projects where the site is too large to be effective within a Pop-NMEC program, do not meet Pop-NMEC eligibility requirements, or where a granular profile (GP) has not been adequately defined. See eligibility requirements for Site-NMEC in Section 4.2.2.

#### **Double-Dipping Prevention**

Projects receiving incentives or claiming savings through the Program must not also receive incentives (i.e. double-dip) or claim savings (i.e., double-count) for the same interventions through any other energy efficiency program, regardless of program channel (e.g., downstream, midstream, or upstream), provider (e.g. other utilities, the California Energy Commission, or the California Public Utilities Commission), or platform (e.g. deemed, custom,

<sup>12</sup> https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/n/6442463694-nmec-rulebook2-0.pdf

meter-based) offering, with the exception of SCE's OBF and DR programs<sup>13</sup>. An upstream rebate program shall mean any program in which SCE pays an incentive to a product retailer, distributor, or manufacturer to buy-down the cost of the product to the end-use customer.

The Program will use SCE data to target customers with the best potential to bring TSB to the program. Additionally, the Program will provide tools to screen out customers that are not a good program fit.

For more information, see Supporting Documents, *Measures and Incentives*, and the M&V Plan, *Qualifying Measures* for an overview of requirements for measure eligibility.

#### **Customer Eligibility Requirements**

General customer eligibility requirements include the following:

- 1. Customer must pay the Public Purpose Program (PPP) surcharge on the account where the energy efficiency equipment is to be installed;
- 2. Program is open to the NAICS codes listed in Appendix A, though exceptions may be made by SCE on a case-by-case basis;

Project Site eligibility requirements include the following:

- 1. Project site must be in SCE's service territory:
- 2. Project site must be an existing building (i.e., no new construction).
- 3. Project site may be either bundled (i.e., receiving electric generation service from SCE) or unbundled (i.e., receiving electric generation service from a Community Choice Aggregator). Direct Access customers are eligible if they meet all other eligibility requirements.
- 4. Project site must have 12 consecutive months of historical energy usage data available, under the same Customer (e.g. if change in tenant or a new account at the site, then project may not be eligible).
- 5. Project site may not participate in any other CPUC ratepayer-funded energy efficiency incentive or rebate program while also participating in the Program.
- 6. Project site may not have participated in a CPUC ratepayer-funded EE program in the 12 months prior to project implementation, unless approved on a case-by-case basis by the AESC Team. In such cases, sufficient data must be available to make a baseline adjustment to account for savings from the previously implemented measure(s).
- 7. Model fit must meet the following requirements for Coefficient of the Variation of the Root Mean Square Error [CV(RMSE)] and Fractional Savings Uncertainty (FSU) by pathway:
  - o For Population NMEC Projects: CV(RMSE)<1.0. Population-level projects do not have a strict FSU criterion, but FSU may be considered for eligibility at AESC's discretion.<sup>14</sup>
  - o For Site NMEC Projects: CV(RMSE) < 0.25, greater than 10% savings at the meter, and an FSU that is less than 50% at 90% confidence.
- 8. If the customer has onsite solar system (or other onsite generation), the system must have been installed and interconnected at least 12 months prior to Program intervention, or a baseline adjustment that reconstructs whole-building load using solar inverter data must be made available.

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<sup>&</sup>lt;sup>13</sup> California Public Utilities Commission, May 16, 2002, D.02-05-046: Interim Opinion Selecting 2002-03 Local Energy Efficiency Programs.
<sup>14</sup> To manage the population FSU and meet NMEC Rulebook requirements, Population-level projects may be screened by FSU if the project is large (baseline usage greater than 10% of the program population) and/or has estimated savings less than 10% of the project baseline. Eligible FSU is at AESC's discretion.

- 9. All participating customer sites with onsite generation must utilize the methods outlined in the non-IOU fuel source guidance for calculating claimable savings.<sup>15</sup>
- 10. Projects participating in SCE's On-Bill Financing (OBF) Program to finance measures installed through the Program must adhere to SCE's documented process at https://www.sce.com/business/tools/on-bill-financing. Additionally, non-OBF financing is permissible.
- 11. Projects must be installed and commissioned no later than October 31, 2027.

Aggregators should raise any questions or concerns about Customer eligibility with the AESC Team. Inquiries may be reviewed and approved by SCE.

More information can be found in the M&V Plan *Permissible Project Types*. List of eligible NAICS code can be found in Appendix A.

#### **Customer Targeting**

The AESC Team will analyze SCE AMI data by zip codes and NAICS code to identify potential eligible customers for the Program. Data will be screened by baseline kWh, summer peak usage (kWh), and cross-referenced by eligibility criteria to result in a list of promising, pre-qualified customers. Once determined, the AESC Team may reach out to these customers to raise program awareness and elicit interest. The AESC Team will direct interested customers to the Enrolled Aggregator list.

#### **Contractor Eligibility Requirements**

Aggregator eligibility and enrollment requirements are outlined below.

#### **Participating Aggregators**

To enroll and participate in the Program, Participating Aggregators must:

- Sign and follow the requirements defined by the AESC Team in the Participating Aggregator Agreement (PAA), including any licensure, credentials, and/or workforce standards applicable to the project types they propose implementing.
- Provide an up-to-date, signed W-9
- Provide 2-3 company contacts who will have access to the AESC's Program Tools and Automated Application Portal. Information must include:
  - o Name
  - o Email
- Attend live, online Aggregator Training or view pre-recorded Aggregator Training, which covers programmatic information, requirements for participation, and details on the process. Aggregator will need to verify, via email, that they have viewed the training before becoming an Enrolled Aggregator and are provided with AESC's Implementation Tools.
- (Optional) If the Aggregator wishes to have their company listed on AESC's Program website, provide a company logo to AESC Team along with contract information (point of contact name, email and/or phone)

<sup>15</sup> https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-efficiency/custom-projects-review-guidance-documents/savings-at-sites-with-non-iou-fuel-sources---guidance-doc.pdf.

The PAA details all terms and conditions required from Aggregators to participate in the Program and captures the commitment between AESC and the Aggregator that allows for program participation. This includes insurance requirements and a non-disclosure agreement and will be signed by the Aggregator and AESC.

#### Subcontracted Aggregators

Aggregators who wish to receive data beyond what is available to Participating Aggregators will need to enroll as a Subcontracted Aggregator. If Aggregators are enrolled as a Subcontracted Aggregator, then the following additional requirements will need to be met:

- Sign and follow the requirements defined by the AESC Team in the Subcontracted Aggregator Agreement (SAA), which in addition to all of the PAA terms and conditions, includes all SCE contractual flow down terms and conditions.
- Meets AESC's identified cybersecurity and data protection requirements, as outlined in the SAA.
- Provide a Certificate of Insurance listing AESC and SCE as additional insured and meets the cyber requirements listed in the SAA.

#### Regulatory Workforce Standards Requirements

CPUC workforce standards will apply based on scope of work for each project and will comply with CPUC mandates. For projects that trigger CPUC workforce standards, appropriate documentation will be collected prior to final project installation approval. Detailed regulatory and general workforce requirements will be included within the Participating Aggregator Agreement and Customer Project Application.

#### Participating Contractors, Manufacturers, Retailers, Distributors, and Partners

Not directly applicable as this program is a downstream program with downstream incentives.

#### **Additional Services**

#### **Program Process and Timelines**

The AESC Team will start enrolling Aggregators at Program Ramp-up in early **April**, **2025**. Upon enrollment, Enrolled Aggregators may start submitting project applications. Within a few months the program is expected to have a healthy number of Enrolled Aggregators and a steady flow of eligibility checks, project value estimations, and project enrollments. Programmatic deadlines will be communicated to Enrolled Aggregators throughout the program cycle. A 12-month M&V Only phase will run for the last year of the program.

Figure 2 below shows the lifecycle process between the main parties throughout the Program process. This shows the steps and interactions between the Program Administrator, Implementer and Aggregator throughout the process.

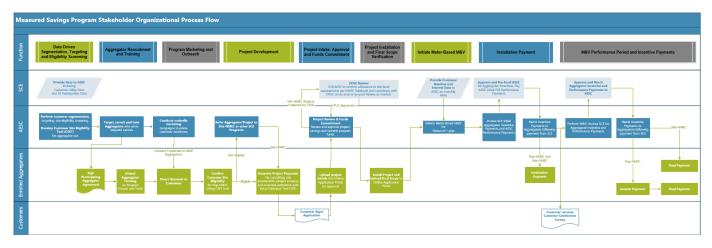


Figure 2. Program Lifecycle Flowchart

#### **Training Activities and Schedule**

The Program will conduct training for Aggregators as needed throughout the program. An Program introduction training is required as part of the Aggregator enrollment process.

#### **Marketing**

The Program relies heavily upon the effective participation of Aggregators to deliver projects that maximize cost-effectiveness and Total System Benefit (TSB). To achieve the Program's purpose, the marketing strategy will focus on the following activities, which center around building and maintaining relationships with Aggregators:

- Engage, educate, support, and enroll Aggregators: Aggregator targeting strategies include prioritization of aggregators, distribution of marketing materials, and outreach and enrollment tracking to increase the diversity and breadth of qualified, high value aggregators serving targeted markets.
- **Optimal project identification:** Data-informed targeting will identify and prioritize customer sites that are pre-qualified for Pop-NMEC and have potential for significant TSB impacts and cost effectiveness.
- Marketing and program partnerships: Marketing partnerships will be utilized to deliver non-resource
  program project referrals and lead generation for aggregators, and support cost effectiveness and program
  coordination.

The AESC Team will perform outreach to aggregators to prompt enrollment and targeted customer outreach to increase customer awareness of the Program to connect Enrolled Aggregators with Customers for projects that may provide the highest potential. Any Program customer targeting will be supplemental to Aggregator outreach; Aggregators hold the primary responsibility for customer marketing and outreach.

#### **Aggregator Payments**

#### Applicable Permitting Required for Payment

In accordance with Public Utilities Code ("PUC") Section 399.4 (b) (1) and (2), prior to receiving any Project Incentive payment, the recipient of the Incentive must certify the Project is complete and complied with applicable permitting and licensing requirements, any contractor performing such work was a licensed contractor". For HVAC Project measures, proof of the HVAC permit closure must also be provided with the required Project Certification.

#### **Offered Incentives**

Incentives will be paid solely to Enrolled Aggregators. The Aggregator incentive payment is based on the total value (TSB) of the Aggregator's portfolio. For the Pop-NMEC pathway, Aggregator will receive three payments per project. The first will be paid based on forecasted values (initial, or pre-payment). Interim payments (between 6-9 months of M&V), and final measured values (final payments, which also serve as a true-up), will be paid based on measured savings. Project payments will be aggregated into one payment, grouped by Quarterly Aggregator Cohort, and will be paid based on Population NMEC Quarterly Reports created by the AESC Team and submitted to, and approved by, SCE.

For Site-NMEC projects, Aggregators will receive two payments per project. The first will be paid based on forecasted values (initial, or pre-payment), and the second will be based on measured values (final payments, which also serve as a true-up). Site-NMEC projects will be paid by individual project rather than being grouped by Quarterly Aggregator Cohorts, based on a Second Post Installation Report created by AESC Team and submitted to and approved by SCE.

The AESC Team uses the following payment terms:

- 120% of the project's estimated incentive payments are reserved at project approval; this value represents the incentive cap. The AESC Team reserves the right to implement a project cost cap in the future.
- Pre-payment is provided upon issuance of PPNL following project installation. 50% of the forecasted incentive will be issued.
- Interim payment (for Pop-NMEC only) paid after all projects in Quarterly Aggregator Cohort achieve 6 months of M&V. Payment based on measured Quarterly Aggregator Cohort total measured TSB to date, multiplied by incentive rate minus the aggregated pre-payment for all projects in Quarterly Aggregator Cohort.
- Final true-up payment will be made following the 12-month M&V Period based on realized savings, net any interim and pre-payments.
- All paid savings will be calculated from TSB outputs from the CEDARS CET.

#### Timing of Aggregator Payments

Timing of Aggregator Payments will vary based on the project pathway.

#### Pop-NMEC Pathway Payment Timing

Payments for the Program submitted through the Population-Level NMEC pathway will be made based on payable savings determinations using population NMEC methods described in the M&V Plan. The AESC Team will track all stages of the project and convert the savings achieved into TSB based on CET outputs and based on rates defined in Table 6 below.

Aggregator incentive payments are grouped by Quarterly Aggregator Cohorts, defined as a group of projects from an Aggregator that started M&V during a specified quarter. Payments will include interim and true-up payments for Aggregator cohorts that completed M&V in the quarter.

Quarterly Aggregator Cohorts are grouped by the following time periods:

Q1: January-MarchQ2: April-JuneQ3: July-SeptemberQ4: October-December

Interim and true-up payments are expected to be made within 30 calendar days from AESC receipt of payment by SCE. Aggregators will be alerted if there's a deviation from this timeline.

#### Site-NMEC Pathway Payment Timing

Payments for the Program submitted through the Site-Level NMEC pathway will be made based on payable savings determinations using Site-Level NMEC methods described in the M&V Plan. The AESC Team will track all stages of the project and convert the kWh and therm savings achieved into TSB based on CET outputs and based on rates defined in Table 6 below.

Aggregator pre-payment will be made following approval of Project Feasibility Study per SCE review and approval and AESC Team issuance of PPNL to Aggregator. Once the project completes M&V and the completed project is approved, the final true-up payment will be made to Aggregator.

Payments are expected to be made within 30 calendar days from AESC receipt of payment by SCE. Aggregators will be alerted if there's a deviation from this timeline.

#### Aggregator Payment Audit Tracking

The AESC Team will document in an auditable manner the recommended payments to support Aggregator invoices and submit to SCE once each project's post-installation package is approved, after each Quarterly Aggregator Cohort has reach 6 months of M&V, and again after each Quarterly Aggregator Cohort's M&V has completed. Payment recommendations will be based on savings results using methods described in the M&V plan and as approved by SCE.

AESC Team will document approved payment amounts at a site level, grouped by Quarterly Aggregator Cohort. Before Aggregator payment is issued, AESC will submit payment information to SCE for approval and payment. Results will be reported to SCE for compliance with CPUC reporting requirements.

Further detail on this process can be found in the M&V plan.

Table 1 Incentive Rates by Pathway and Payment Timing

Pathway	Incentive Rate (\$/TSB)	Payment Frequency	Payment Instances per Project
Population-Level NMEC	\$0.48	Quarterly	Thrice per project (pre-payment
Site-Level NMEC	\$0.46	Monthly, as projects complete installation and M&V	of PPNL, interim payment at 6-9 months of M&V,

Period)
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#### Payments for NRE Projects

If a site is flagged for NRE during the M&V period, then the final true-up payment will be adjusted based on whether the NRE-flagged projects go through the Pop-NMEC or Site-NMEC pathways.

#### NRE Treatment for Pop-NMEC

Ultimately, the AESC Team and SCE will determine whether and how project savings should be adjusted. If it is determined that metered savings results are invalid, the project savings for Aggregator payments will be estimated using a consistent transparent adjustment applied uniformly to all flagged projects. This value is based on the realization rate for the other projects (without non-routine events) in the Aggregator's portfolio. <sup>16</sup> Detailed calculations for NRE treatment of Pop-NMEC projects may be found in the M&V Plan.

#### NRE Treatment for Site-NMEC

Site-NMEC will allow custom NRE adjustments to the baseline and performance periods when they are detected. Site-level NRE adjustments will be reviewed for during the M&V period and will be adjusted based on Site-Level M&V plans. Site-Level M&V Plans will be provided with project submission according to the requirements of the CPUC NMEC Rulebook and SCE M&V Requirements for Site-Level NMEC. AESC's Praxis Platform can be used to generate the Site-Level M&V plan template with baseline model development/predictability analysis based on Praxis generated information. The template will align with SCE Site-Level NMEC M&V Plan requirements.

#### Repayment of Pre-payments

The AESC Team anticipates there may be situations in which incentive pre-payments issued will need to be repaid by Aggregators. Some situations in which repayment may occur include, but are not limited to, a project not measuring greater than 50% of the TSB during the 12-month M&V period, or evidence surfacing during the M&V period that the project did not meet eligibility requirements. If a project requires repayment by the Aggregator on the incentive pre-payment, SCE and the AESC Team reserve the right to deduct the owed amount from the Aggregator's Quarterly Cohort payment or future Aggregator Quarterly Cohort payments until the amount is trued-up. If an Aggregator does not have any other projects and the AESC Team is not able to recover the incentives before the end of the program, the AESC Team reserves the right to request the owed incentives back from the Aggregator.

<sup>16</sup> If the entire Aggregator's portfolio is subject to an NRE, the aggregator's portfolio will receive the program's realization rate and the aggregator's participation will be reviewed.

#### **Customer and Aggregator Surveys**

#### Satisfaction Surveys

On a quarterly basis, two separate customer satisfaction surveys will be issued. One will be sent to Aggregators, following each payment period, and the other to Customers following installation of their project. For the sake of efficiency, both customer satisfaction surveys will be sent at the same time, 14 days following issuing payments to Aggregator Quarterly Cohorts.

#### **Aggregator Surveys**

An Aggregator Satisfaction survey link will be emailed to all Enrolled Aggregators. Questions may change throughout the program but will be designed to elicit feedback on the AESC Team's services and tools and Aggregator perceived value in Program participation. An option will be provided within the survey to request outreach by the AESC Team with space for contact information if a response is desired. If disputes or complaints are documented within survey responses, then the AESC Team will log it within the Dispute Resolution log. This log will be updated regularly and made available to SCE upon request. Additionally, if contact information is provided and Aggregator requests a response, then the AESC Team will reach out to the contact provided in the survey response.

#### **Customer Surveys**

A Customer Satisfaction survey link will be emailed to all Customers that had a project install during the last Aggregator quarterly cohort. Customer surveys will be similar in structure to Aggregators surveys, but with a means of providing feedback on the Aggregator they worked with to install the project. As with Aggregator disputes and complaints logged in the survey responses, the AESC Team will log any complaints within the Dispute Resolution log.

#### **Audits**

While Aggregators will work with clients to identify project needs through their regular sales process, which may include on-site visits to assess conditions and needs, the Program will not require audits.

#### **Quality Assurance Provisions**

Every NMEC project will go through the same quality assurance process.

NMEC offerings will require a pre-screening to determine whether a Population NMEC approach is suitable and may include any measure that delivers Total System Benefit and adheres to the latest CPUC approved version of the NMEC rulebook.

The objective of reviewing Population NMEC projects is to confirm that project sites and meters are eligible, and that proposed savings by measure type are reasonable and appropriately weighted within a proposed project due to the importance of EUL in determining accurate TSB values.

The Program may allow an NMEC-Based Site-Specific Approach (on an exception basis) for high value projects that don't fit the population format. Projects using the NMEC-Based Site Approach must adhere to the latest version of the NMEC rulebook and follow the custom project review process.

The Quality Assurance process will include the following phases for both Population NMEC and NMEC-Based Site-Specific Approaches:

- **Project Eligibility Screening:** Verify customer site eligibility through the Customer Site Eligibility Tool (CSET) results and resolve any exceptions, such as non-IOU fuel sources.
- Application Package Review: Confirm all application materials are complete, measures are eligible, and calculations are reasonable. Special focus will be on Value Estimation Tool (VET) measures selected and their associated EULs, as TSB and incentives are significantly impacted by EUL. A QC checklist will be used to systematically verify all items are reviewed.
- **Post-Intervention Verification:** Refer to a checklist to confirm the final project submittal is complete and any scope changes and associated calculations are reasonable or accounted for. Re-review projects where scope has changed from the proposal phase and adjust forecast energy savings and incentive values if needed.
- M&V: Perform on-going review of projects during the M&V period to identify and address anomalies in data, NREs, and other issues and to ensure that in all cases, energy savings calculation methods align with latest version of CPUC approved NMEC Rulebook and M&V plan.

Energy savings review will focus on verifying reasonableness of calculations and results, ensuring there will not be large differences between projected savings and actual measured savings. In addition, QC reviewers will consider M&V results from each aggregator as subsequent projects are reviewed. For example, if an installer's Population NMEC portfolio consistently has a low realization rate, the reviewer may encourage them to be more conservative in future calculations.

To minimize potential for errors, the Program will clearly outline required documentation for all measure types and will provide up-front application training and reference materials to help aggregators comply with requirements. Such items will include, but are not limited to, CSET and VET results, equipment specifications, energy savings calculations, invoices, identification of possible non-routine events (NREs), Operations, Maintenance and Monitoring plans for BRO projects, photographic evidence of installation, and Project M&V Plan for NMEC-Based Site-Specific Approach. The Program reserves the right to conduct project pre- and post-installation site inspections.

AESC will arrange to provide independent QA/QC of the Program's Population NMEC Approach intake and M&V results. In M&V, the sub-consultant will independently replicate all quarterly M&V results to identify anomalies and potential corrective actions to address. All NMEC based projects will be reviewed by the Program and SCE to confirm adherence to the applicable population level NMEC or site based NMEC requirements outlined in the latest CPUC approved NMEC rulebook. The Commission staff may also select a sample of projects for review and input.

#### **Project Enrollment (Pre-Intervention) Process**

Once officially enrolled in the program, Enrolled Aggregators can utilize AESC's tools and Online Application Portal to submit projects for application (pre-intervention) and review. This process is to enroll projects within the Program and, if approved by the AESC Team and SCE, will result in the project being issued an Incentive Reservation Letter (IRL), reserving incentives within the Program and permitting the Aggregator to proceed with the installation. Please note that all incentive funds are reserved on a "first-come, first-served basis."

#### **Program Implementation Tools**

AESC's Implementation Tools and Praxis platform will be available to Enrolled Aggregators to:

- Confirm customer eligibility using historical data, model fit, address, double-dip data, and other factors that may contribute to customer ineligibility.
- Estimate TSB value, Total Resource Cost (TRC), and estimated incentive for each project.
- Track building performance by analyzing utility bill data for buildings, defining building characteristics, creating a portfolio or population of buildings for the program, and tracking energy performance over time as projects are implemented and measured.
- Generate Program Documents such as applications and reports.
- Perform Measurement & Verification of completed projects using the pre-approved method meeting the requirements of the population-based NMEC savings methodology.
- Track earned and paid incentives.

#### **Customer and Project Enrollment**

Before the project is permitted to install, Aggregators must enroll their Customers' projects, so that incentives may be reserved within the Program pipeline. Aggregators enroll projects by submitting the Project Application Package to the AESC Team. Aggregators submitting projects must include the following within the Project Application Package:

- 1. Contact information for their company.
- 2. Contact information for the Customer being enrolled.
- 3. Project information (such as forecasted savings) for electric and gas (if applicable for Site-NMEC projects), including savings calculations.
- 4. Preliminary Scope of Work
- 5. Preliminary Pricing documentation
- 6. CSET Result or verification of eligibility via email from AESC Team<sup>17</sup>
- 7. VET and CEDARS Cost Effectiveness Tool (CET) result from savings calculations to determine forecasted TSB and TRCNoAdmin<sup>18</sup>
- 8. Existing Equipment performance Specifications
- 9. Signed Customer Program Application, including release of Customer data sharing with Aggregator and the AESC Team<sup>19</sup>
- 10. For site-specific projects, Project Feasibility Study.

Note: The AESC Team maintains and makes available an "Application Checklist" for Aggregator's use. The Application Checklist may be updated more frequently than this document and should be used as the best source of information regarding application requirements.

Upon completion of the project enrollment form, the AESC Team will review and verify that the enrollment is complete. AESC maintains a QA/QC Plan with specific detail on the AESC Team's review. The review is focused on ensuring that customers are receiving reasonable estimates of savings potential, Aggregators are appropriately applying the effective useful life, and that the AESC Team and SCE can have confidence in forecasted impacts and manage performance payment budgets. If the review is not passed, the AESC Team will review the results with the

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<sup>&</sup>lt;sup>17</sup> Prior to availability of the CSET for Aggregators, Aggregator will work with AESC to determine site's eligibility.

<sup>&</sup>lt;sup>18</sup> Prior to availability of the VET for Aggregators, Aggregator will work with AESC for VET/CET result to determine estimated forecasted incentive amount.

<sup>19</sup> This release will be requirement within the Customer Project Application and is necessary to share Praxis M&V Tool access to track Aggregator portfolio performance during the M&V period.

Aggregator to resolve any issues identified. If the review is passed, the project will be reviewed by SCE, who may approve, request revisions, or reject the applications.

All projects are subject to AESC Team and SCE approval. Upon completion of both reviews, the AESC Team will issue an IRL if approved or notify the Aggregator that their projects are rejected or subject to additional review. Approved projects will be added to the submitting Aggregator's portfolio of projects by the AESC Team. Upon approval, the AESC Team will reserve 120% of the estimated incentive value from the MSSR budget. The reservation of 120% of the forecasted project value ensures that incentive funding will be available for the installed project, in the case of overperformance. The AESC Team reserves the right to change the reservation percentage on a case-by-case basis, Aggregator-basis, or Program-wide. Any such changes will be communicated to affected Enrolled Aggregators.

Incentive reservations expire 270 calendar days from the date the IRL was issued, and as such project installations and related commissioning must complete within this time. Aggregators will notify the AESC Team of any project scope or project timeline change/extension needed following issuance of the IRL. Extensions are considered on a case-by-case basis and not guaranteed.

After the IRL is issued and up to the point of equipment purchase (as evidenced by a dated invoice and final scope of work), projects may be declined or adjusted at the discretion of the AESC Team or SCE if any project attribute is determined to have been inaccurate at the time of project approval, up to the point of equipment purchase. After equipment purchase, project attributes, including avoided cost values, measure EULs, and all other factors that go into the calculation of TSB, will be locked in for the duration of project installation unless the attribute data supplied is determined to be inaccurate.

#### **Project Enrollment (Post-Intervention) Process**

Once installed, the Aggregator will submit a post-installation package to the AESC Team for review by AESC Team, followed by an SCE review. Projects may be inspected on-site by the AESC team or SCE per the terms of the program's Quality Assurance Plan. If an installed project does not pass a QA inspection, the Aggregator will be alerted by the AESC Team and will be expected to rectify the issue as specified in the Aggregator Agreement before it can begin M&V. If approved, the project will be issued a Performance Period Notification Letter (PPNL), indicating the project has been successfully installed and has now started the M&V Performance Period.

#### Project Post-Installation Documentation Requirements

Once the project has installed and is fully commissioned, the Aggregator will need to submit a post-installation package. This may include, but is not limited to:

- Final project photos, verifying equipment installation
- Specifications for installed equipment
- Final Project invoice<sup>20</sup>
- Final Scope of Work, signed by Customer
- Incentive Recipient Certification of Contractor Licenses and Permits Form
- Final CET result
- Revised Energy Calculations (for projects wherein the scope of work and energy savings estimates changed from the pre-installation package)
- Short-term Trend Data for RCx measures with over 20% savings

<sup>&</sup>lt;sup>20</sup> Project invoices will need to meet requirements outlined in Aggregator Package Submittal Instructions.

- Contractor Certification of HVAC Permits and License Form
- For site-specific projects, Post-Installation Report
- Final incentive amount (\$) paid to the customer by the Aggregator at the end of the M&V period.

Note: The AESC Team maintains and makes available an "Post-Installation Checklist" for Aggregator's use. The Application Checklist may be updated more frequently than this document and should be used as the best source of information regarding application requirements.

#### Final Scope of Work

Implementation and installation of the project measures is considered complete only after the Aggregator provides the Final Scope of Work to the AESC Team, signed by the Customer. The Final Scope of Work will affirm that installation activities have been completed and that the measures are installed and operating properly (as evidenced by supporting data and documentation), and ready to generate savings.

#### Final Project Photos

Geotagging is required. If there are no geotags, an overview photo of the building or site verifying the project location is required. Photos must include individual equipment nameplate(s) and sufficient evidence to verify measure counts installed. Such photographic evidence should reflect at least one picture of each equipment (e.g., each lightbulb wattage and fixture variation) type and space (e.g., hallway, office, meeting room, retail area, etc.).

#### **Project Invoices**

Project cost documentation shall be collected and included in the form of a final invoice with customer acknowledgement upon project completion. Project cost documentation must be complete and accurate, including contractor invoices, internal hours, etc. Costs unrelated to the energy efficiency project cannot be included within reported costs.

#### Site Visits

Customer and Aggregator agree that AESC Team, SCE, and/or the CPUC may perform an inspection of the installed measures at any point during the pre-installation, the post-installation and performance period. Aggregator and customer must provide access rights within 5 days of the request.

#### **Mid-Program Policy Changes**

In order to protect Aggregators and customers from mid-program policy changes that could negatively impact project financials and viability, assigned measure EUL values and the Avoided Cost Calculator (ACC) version used to calculate TSB will remain constant for the lifecycle of a project, based on the final application values used to approve a project.

#### **Project Tracking (M&V)**

Once the project is approved and a PPNL is issued for the project, the AESC Team will enter the project into AESC's Praxis Platform for project M&V tracking. The AESC Team will monitor all projects for savings and compliance with program requirements. As described above, Aggregators will have no-cost access to AESC's Praxis Platform to track ongoing, meter-based performance of their portfolio. AESC's Praxis platform will track and report out kWh and Therms savings, and on a quarterly basis the TSB values (as determined by the CET) and associated estimated and/or approved incentive payments will be provided. Additionally, the AESC Team will upload required project details to SCE.

#### **Non-Routine Events**

The Aggregator is required to notify the AESC Team of any situation in which a building enrolled in the Program has a non-program related material change in energy usage, known as a "non-routine event (NRE)". Examples of NREs may include material changes including, but not limited to:

- Changes to building size;
- Significant changes of staffing or occupancy;
- Additions or subtractions of heating and cooling loads in the building;
- Addition or reduction of load, such as computers or data processing equipment;
- Longer or shorter operating hours, or material schedule changes; and/or
- Changes in building usage, such as converting lab space to office space.

The Aggregator shall notify the AESC Team of NREs as soon as supporting information can be assembled and submitted. For all NREs, Aggregators shall submit to the AESC Team a detailed narrative describing the changes that occurred and the duration of the NRE including the following:

- Describe the change and its impact on energy usage;
- Identify the date the change occurred and expected length;
- Describe the systems that are likely impacted by the change;
- If changing equipment, either adding or subtracting, note the load (kW) of the existing equipment, and the new equipment, if appropriate.

Additionally, the AESC Team may review the interval data on a monthly basis and contact the Aggregator if the project is trending towards an NRE, or is flagged as an NRE. If an NRE is verified, then the AESC Team will inform the Aggregator that the project will receive an NRE calculation adjustment. Please see the M&V plan for the details of non-routine event identification methods and calculation.

#### **Other Program Metrics**

The Program Databases and software tools, along with the CET results, will be used to track and report on the following metrics.

Year	<b>Total System Benefit</b>	TRC
2025	\$2,966,257	0.79
2026	\$11,600,862	1.13
2027	\$11,651,651	1.15
2028	\$0	0.00
Total	\$26,218,770	1.09

# 5. Supporting Documents

### Program Theory<sup>21</sup> and Program Logic Model<sup>22</sup>

The Program theory is to maximize program impacts and increase aggregator and customer participation. The activities listed in the Program Logic Model below lead to Program outputs and short-term, mid-term, and long-term outcomes.

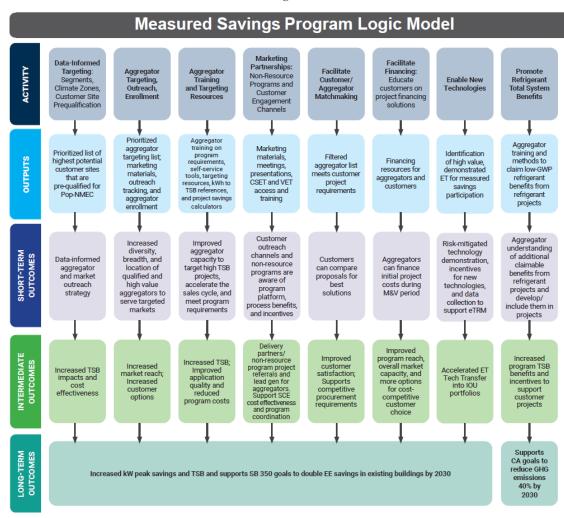


Figure 1: Measured Savings Program Logic Model
Diagram

<sup>&</sup>lt;sup>21</sup> The expected causal relationships between program goals and program activities in a way that allows the reader to understand why the proposed program activities are expected to result in the accomplishment of the program goals. A well-developed program theory can (and should) also describe the barriers that will be overcome in order to accomplish the goals and clearly describe how the program activities are expected to overcome those barriers. *California Evaluation Framework*, June 2004.

<sup>&</sup>lt;sup>22</sup> The graphical representation of the program theory showing the flow between activities, their outputs, and subsequent short-term, intermediate, and long-term outcomes. *California Evaluation Framework*, June 2004.

#### **Process Flow Chart**

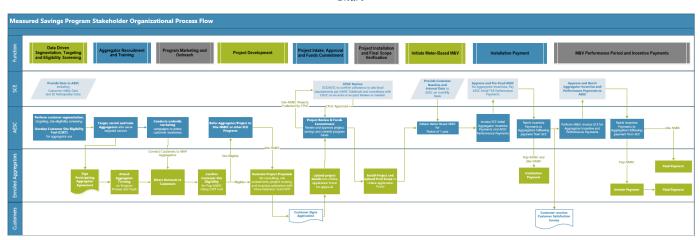


Figure 2: Measured Savings Program Process Flow Chart

#### **Measures and Incentives**

The Program uses NMEC incentives. The Program Manual outlines NMEC incentives. Information on the approach and associated software tools for calculating actual payable and claimable savings for the NMEC projects can be found in both the Program Manual and M&V Plan. The AESC Team will provide tools to check eligibility, estimate benefits and incentives, perform M&V, and track project savings and incentives.

For this NMEC program, savings and TSB are based on the primary load shape associated with the project. Therefore, load shape, not measures were used to estimate NMEC program savings and associated TSB. The table below outlines the anticipated measure type based on load shape category and the percentage of the TSB each provides at this distribution.

Anticipated Load Shape Distribution

E3MeaElecEndUseShape	TSB (\$)	Percent of Total TSB
HVAC	\$15,620,365	51%
Lighting	\$10,598,405	36%
Refrigeration	\$2,097,502	8%
Other	\$1,310,938	5%

# **Diagram of Program**

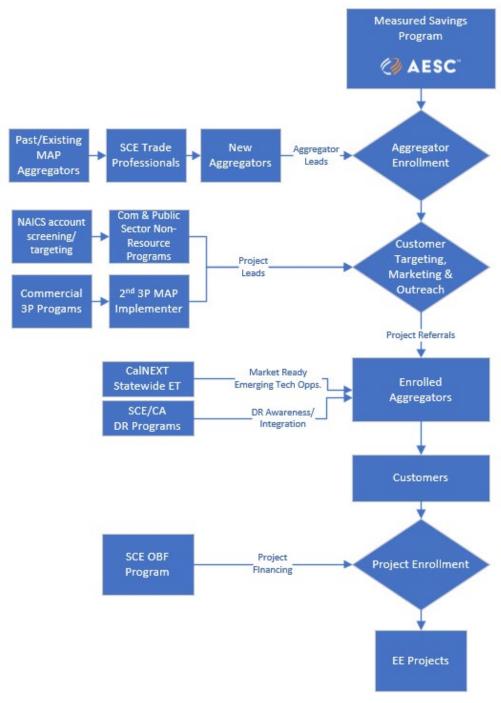


Figure 3. SCE Program Diagram

# **Program Measurement & Verification (EM&V)**

As requested, AESC will support EM&V or other evaluation efforts. The M&V Plan provides detail on M&V calculation and approach.

# Normalized Metered Energy Consumption (NMEC) Program M&V Plan

Measured Savings Program NMEC M&V Plan is provided within the attached Program Manual.

## Appendix A. Measured Savings Program Eligible NAICS Codes

Sector	Segment	NAICS Code	Description of Segment
441 Auto Retailers	New Car Dealers	441110	Establishments primarily engaged in retailing new automobiles and light trucks, such as sport utility vehicles, and passenger and cargo vans, or retailing these new vehicles in combination with activities, such as repair services, retailing used cars, and selling replacement parts and accessories.
441 Auto Retailers	Used Car Dealers	441120	Establishments primarily engaged in retailing used automobiles and light trucks, such as sport utility vehicles, and passenger and cargo vans.
441 Auto Retailers	Recreational Vehicle Dealers	441210	Establishments primarily engaged in retailing new and/or used recreational vehicles commonly referred to as RVs or retailing these new vehicles in combination with activities, such as repair services and selling replacement parts and accessories.
445 Grocery and Convenience Retailers	Supermarkets and Other Grocery Retailers (except Convenience Retailers)	445110	Establishments generally known as supermarkets and other grocery retailers (except convenience retailers) primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry. Included in this industry are delicatessen-type establishments primarily engaged in retailing a general line of food.
445 Grocery and Convenience Retailers	Convenience Retailers	445131	Establishments primarily engaged in retailing a limited line of groceries that generally includes milk, bread, soda, and snacks, such as convenience stores or food marts (except those operating fuel pumps).
445 Grocery and Convenience Retailers	Vending Machine Operators	445132	Establishments primarily engaged in retailing merchandise through vending machines that they service.
445 Grocery and Convenience Retailers	Specialty Food Retailers	4452	Establishments including Fruit and Vegetable Retailers, Meat Retailers, Fish and Seafood Retailers, Baked Good Retailers, Confectionary

			and Nut Retailers, and all other specialty food retailers.
445 Grocery and Convenience Retailers	Beer, Wine, and Liquor Retailers	445320	Establishments primarily engaged in retailing packaged alcoholic beverages, such as ale, beer, wine, and liquor.
445 Grocery and Convenience Retailers	Furniture and Home Furnishings Retailers	4491	Establishments including furniture retailers, floor covering retailers, window treatment retailers, and all other home furnishings retailers.
445 Grocery and Convenience Retailers	Electronics and Appliance Retailers	449210	Establishments primarily engaged in one of the following: (1) retailing an array of new household-type appliances and consumer-type electronic products, such as televisions, computers, electronic tablets, and cameras; (2) specializing in retailing a single line of new consumer-type electronic products; (3) retailing these new products in combination with repair and support services; (4) retailing new prepackaged or downloadable computer software (without publishing); and/or (5) retailing prerecorded audio and video media, such as downloadable digital music and video files (without production or publishing), CDs, and DVDs.
45 Retail Trade	Department Stores	455110	Establishments generally known as department stores that have separate departments for general lines of new merchandise, such as apparel, jewelry, home furnishings, and toys, with no one merchandise line predominating.
45 Retail Trade	All Other General Merchandise Retailers	455219	Establishments primarily engaged in retailing new and used general merchandise (except department stores, warehouse clubs, superstores, and supercenters).
45 Retail Trade	Gasoline Stations with Convenience Stores	457110	Establishments primarily engaged in retailing automotive fuels (e.g., gasoline, diesel fuel, gasohol, alternative fuels) in combination with a limited line of groceries. These establishments can either be in a convenience store (i.e., food mart) setting or a gasoline station setting. These establishments may also provide automotive repair services.

45 Retail Trade	Gasoline Stations without Convenience Stores	457120	Establishments generally known as gasoline stations (except those with convenience stores) or truck stops primarily engaged in (1) retailing automotive fuels (e.g., gasoline, diesel fuel, gasohol, alternative fuels) or (2) retailing these fuels in combination with activities, such as providing repair services; selling automotive oils, replacement parts, and accessories; and/or providing food services.
45 Retail Trade	Clothing and Clothing Accessories Retailers	458110	Establishments primarily engaged in retailing general or specialized lines of new clothing and clothing accessories, such as hats and caps, costume jewelry, gloves, handbags, ties, wigs, toupees, and belts.
45 Retail Trade	Shoe Retailers	458210	Establishments primarily engaged in retailing all types of new footwear
45 Retail Trade	Jewelry Retailers	458310	Establishments primarily engaged in retailing one or more of the following items: (1) new jewelry (except costume jewelry); (2) new sterling and plated silverware; and (3) new watches and clocks. Also included are establishments retailing these new products in combination with lapidary work and/or repair services.
45 Retail Trade	Luggage and Leather Goods Retailers	458320	Establishments primarily engaged in retailing new luggage, briefcases, and trunks, or retailing these new products in combination with a general line of leather items (except leather apparel), such as belts, gloves, and handbags.
45 Retail Trade	Sporting Goods, Hobby, and Musical Instrument Retailers, Other	459110- 459999	Establishments including sporting goods retailers; hobby, toy and game retailers; sewing, needlework, and piece goods retailers; musical instrument and supplies retailers; Book retailers; Florists; Office Supplies; Gift retailers; Used Merchandise; Pet Supply Retailers; Art Dealers; Manufactured Home Dealers; Tobacco and Smoking Supply Retailers; all other Misc. Retailers.
48-49 Transportation and Warehousing	Warehousing and Storage	493110- 493190	Includes general warehousing and storage; refrigerated warehousing and storage; farm product warehousing and storage; other warehousing and storage.

54 Professional, Scientific, and Technical Services	Professional, Scientific, and Technical Services	541110- 541990	Professional, Scientific, and Technical Services
55 Management of Companies and Enterprises	Management of Companies and Enterprises	551111- 551114	Includes offices of bank holding companies, other holding companies, and corporate, subsidiary, and regional managing offices.
56 Administrative and Support and Waste Management and Remediation Services	Administrative and Support and Waste Management and Remediation Services	561110- 562998	Administrative and Support and Waste Management and Remediation Services
61 Educational Services	Elementary and Secondary Schools	6111	Private, Public and Parochial K-12 schools
61 Educational Services	Junior Colleges	6112	Establishments primarily engaged in furnishing academic, or academic and technical, courses and granting associate degrees, certificates, or diplomas below the baccalaureate level.
61 Educational Services	Colleges, Universities, and Professional Schools	6113	Establishments primarily engaged in furnishing academic courses and granting degrees at baccalaureate or graduate levels.
61 Educational Services	Business Schools and Computer and Management Training	6114	Establishments including Business and secretarial schools, Computer Training, Professional and Management Development training
61 Educational Services	Technical and Trade Schools	6115	Establishments in education on Cosmetology, Flight training, apprenticeship training, other technical and trade schools
61 Educational Services	Other Schools and Instruction	6116	Establishment son education in Fine art schools, Sports and Recreation instruction, Language Schools, Exam Preparation
61 Educational Services	Educational Support Services	6117	Establishments providing Educational Support Services

62 Health Care and Social Assistance	Nursing Care Facilities (Skilled Nursing Facilities)	623110	Convalescent homes or convalescent hospitals (except psychiatric), Nursing homes, Rest homes with nursing care, Assisted living facilities (without nursing facilities) for the elderly with nursing care Inpatient care hospices
62 Health Care and Social Assistance	Residential Intellectual and Developmental Disability Facilities	623210	Establishments (e.g., group homes, hospitals, intermediate care facilities) primarily engaged in providing residential care services for persons with intellectual and developmental disabilities. These facilities may provide some health care, though the focus is room, board, protective supervision, and counseling.
62 Health Care and Social Assistance	Residential Mental Health and Substance Abuse Facilities	623220	Establishments primarily engaged in providing residential care and treatment for patients with mental health and substance abuse illnesses. These establishments provide room, board, supervision, and counseling services. Although medical services may be available at these establishments, they are incidental to the counseling, mental rehabilitation, and support services offered.
62 Health Care and Social Assistance	Continuing Care Retirement Communities	623311	Comprises establishments primarily engaged in providing a range of residential and personal care services with on-site nursing care facilities for (1) the elderly and other persons who are unable to fully care for themselves and/or (2) the elderly and other persons who do not desire to live independently.
62 Health Care and Social Assistance	Assisted Living Facilities for the Elderly	623312	Establishments primarily engaged in providing residential and personal care services without nursing care for (1) the elderly or other persons who are unable to fully care for themselves and/or (2) the elderly or other persons who do not desire to live independently.
62 Health Care and Social Assistance	Other Residential Care Facilities	623990	Establishments primarily engaged in providing residential care (except residential intellectual and developmental disability facilities, residential mental health and substance abuse facilities, continuing care retirement communities, and assisted living facilities for the elderly).

71 Arts Entertainment and Recreation	Amusement and Theme Parks	713110	Establishments, known as amusement or theme parks, primarily engaged in operating a variety of attractions, such as mechanical rides, water rides, games, shows, theme exhibits, refreshment stands, and picnic grounds. These establishments may lease space to others on a concession basis.
71 Arts Entertainment and Recreation	Amusement Arcades	713120	This industry comprises establishments primarily engaged in operating amusement (except gambling, billiard, or pool) arcades and parlors.
71 Arts Entertainment and Recreation	Casinos (except Casino Hotels)	713210	Gambling facilities that offer table wagering games along with other gambling activities, such as slot machines and sports betting. These establishments often provide food and beverage services. Included in this industry are floating casinos (i.e., gambling cruises, riverboat casinos) and casinos with racetracks.
71 Arts Entertainment and Recreation	Other Gambling Industries	713290	Establishments primarily engaged in operating gambling facilities (except casinos or casino hotels) or providing gambling services.
71 Arts Entertainment and Recreation	Golf Courses and Country Clubs	713910	Comprises (1) establishments primarily engaged in operating golf courses (except miniature) and (2) establishments primarily engaged in operating golf courses, along with dining facilities and other recreational facilities that are known as country clubs.
71 Arts Entertainment and Recreation	Skiing Facilities	713920	Establishments engaged in (1) operating downhill, cross country, or related skiing areas and/or (2) operating equipment, such as ski lifts and tows.
71 Arts Entertainment and Recreation	Marinas	713930	Establishments, commonly known as marinas, engaged in operating docking and/or storage facilities for pleasure craft owners, with or without one or more related activities, such as retailing fuel and marine supplies; and repairing, maintaining, or renting pleasure boats.
71 Arts Entertainment and Recreation	Fitness and Recreational Sports Centers	713940	Fitness and recreational sports facilities featuring exercise and other active physical fitness conditioning or recreational sports activities, such as swimming, skating, or racquet sports.
71 Arts Entertainment and Recreation	Bowling Centers	713850	Establishments engaged in operating bowling centers.

71 Arts Entertainment and Recreation	All Other Amusement and Recreation Industries	713990	Establishments (except amusement parks and arcades; gambling industries; golf courses and country clubs; skiing facilities; marinas; fitness and recreational sports centers; and bowling centers) primarily engaged in providing recreational and amusement services.
81 Other Services	Automotive Repair and Maintenance	8111	Establishments primarily engaged in providing automotive repair and maintenance services.
81 Other Services	Electronic and Precision Equipment Repair and Maintenance	811210	Establishments primarily engaged in repairing and maintaining one or more of the following: (1) consumer electronic equipment; (2) computers; (3) office machines; (4) communication equipment; and (5) other electronic and precision equipment and instruments, without retailing these products as new.
81 Other Services	Commercial and Industrial Machinery and Equipment	811310	Establishments primarily engaged in the repair and maintenance of commercial and industrial machinery and equipment. Establishments in this industry either sharpen/install commercial and industrial machinery blades and saws or provide welding (e.g., automotive, general) repair services; or repair agricultural and other heavy and industrial machinery and equipment (e.g., forklifts and other material handling equipment, machine tools, commercial refrigeration equipment, construction equipment, and mining machinery).
81 Other Services	Personal and Household Goods Repair and Maintenance	8114	Establishments primarily engaged in repairing and servicing personal or household-type goods without retailing new personal or household-type goods
81 Other Services	Personal Care Services	8121	Establishments primarily engaged in providing personal care services (such as hair, nail, facial, nonpermanent makeup, or non-medical diet and weight reducing services).
81 Other Services	Death Care Services	8122	Establishments primarily engaged in preparing the dead for burial or interment and conducting funerals.
81 Other Services	Drycleaning and Laundry Services	8123	Establishments primarily engaged in providing drycleaning services, laundering services, and specialty cleaning services.

81 Other Services	Other Personal Services	8129	Establishments providing other personal services such as pet care, photofinishing laboratories, and parking lots and garages.
81 Other Services	Religious Organizations	813110	This industry comprises (1) establishments primarily engaged in operating religious organizations, such as churches, religious temples, mosques, and monasteries, and/or (2) establishments primarily engaged in administering an organized religion or promoting religious activities.
81 Other Services	Grantmaking and Giving Services	8132	Establishments in this industry award grants from trust funds based on a competitive selection process or the preferences of the foundation managers and grantors; or fund a single entity, such as a museum or university.
81 Other Services	Social Advocacy Organizations	8133	Establishments primarily engaged in promoting causes associated with human rights; environment, conservation and wildlife, and other social advocacy.
81 Other Services	Civic and Social Organizations	813410	Establishments primarily engaged in promoting the civic and social interests of their members. Establishments in this industry may operate bars and restaurants for their members.
81 Other Services	Business, Professional, Labor, Political, and Similar Organizations	8139	This industry comprises establishments primarily engaged in promoting the interests of their members.
92 Public Administration	Executive Offices	921110	Government establishments serving as offices of chief executives and their advisory committees and commissions. This industry includes offices of the president, governors, and mayors, in addition to executive advisory commissions.
92 Public Administration	Legislative Bodies	921120	Government establishments serving as legislative bodies and their advisory committees and commissions
92 Public Administration	Public Finance Activities	921130	Government establishments primarily engaged in public finance, taxation, and monetary policy. Included are financial administration activities, such as monetary policy; tax administration and collection; custody and disbursement of funds; debt and investment administration; auditing

			activities; and government employee retirement trust fund administration.
92 Public Administration	Executive and Legislative Offices, Combined	921140	Executive and Legislative Offices, Combined
92 Public Administration	American Indian and Alaska Native Tribal Governments	921150	American Indian and Alaska Native Tribal Governments
92 Public Administration	Other General Government Support	921190	Other General Government Support
92 Public Administration	Courts	922110	civilian courts, courts of law, and sheriffs' offices conducting court functions only
92 Public Administration	Police Protection	922120	Government establishments primarily engaged in criminal and civil law enforcement, police, traffic safety, and other activities related to the enforcement of the law and preservation of order. Combined police and fire departments are included in this industry.
92 Public Administration	Legal Counsel and Prosecution	922130	Offices of Attorney generals', Public defenders, District attorneys, public prosecutors' offices
92 Public Administration	Correctional Institutions	922140	Public Administration Correctional institutions, Penitentiaries, Detention centers, Prisons and Jails.
92 Public Administration	Parole Offices and Probation Offices	922150	Government establishments primarily engaged in judicially administering probation offices, parole offices and boards, and pardon boards.
92 Public Administration	Fire Protection	922160	Establishments primarily engaged in firefighting and other related fire protection activities.  Government establishments providing combined fire protection and ambulance or rescue services are classified in this industry.
92 Public Administration	Other Justice, Public Order, and Safety Activities	922190	These establishments include the general administration of public order and safety programs. Government establishments responsible for the collection of statistics on public safety are included in this industry. Includes government Consumer product safety commissions, Emergency planning and

			management offices, Disaster preparedness and management offices, Public safety bureaus and statistics centers
92 Public Administration	Administration of Education Programs	923110	Government establishments primarily engaged in the central coordination, planning, supervision, and administration of funds, policies, intergovernmental activities, statistical reports and data collection, and centralized programs for educational administration.
92 Public Administration	Administration of Public Health Programs	923120	Administration of Public Health Programs
92 Public Administration	Administration of Human Resource Programs (except Education, Public Health, and Veterans' Affairs Programs)	923130	Administration of Human Resource Programs (except Education, Public Health, and Veterans' Affairs Programs)
92 Public Administration	Administration of Veterans' Affairs	923140	Administration of Veterans' Affairs
92 Public Administration	Administration of Air and Water Resource and Solid Waste Management Programs	924110	Establishments primarily engaged in one or more of the following: (1) the administration, regulation, and enforcement of air and water resource programs; solid waste management programs; water and air pollution control and prevention programs; flood control programs; drainage development and water resource consumption programs; and toxic waste removal and cleanup programs; and (2) coordination of these activities at intergovernmental levels.
92 Public Administration	Administration of Conservation Programs	924120	government establishments primarily engaged in the administration, regulation, supervision, and control of land use, including recreational areas; conservation and preservation of natural resources; erosion control; geological survey program administration; weather forecasting program administration; and the administration and protection of publicly and privately owned forest lands. Government establishments responsible for planning, management, regulation, and conservation of game, fish, and

			wildlife populations, including wildlife management areas and field stations; and other administrative matters relating to the protection of fish, game, and wildlife are included in this industry.
92 Public Administration	Administration of Housing Programs	925110	Government establishments primarily engaged in the administration and planning of housing programs, including building standards agencies, housing authorities, and housing programs, planning and development.
92 Public Administration	Administration of Urban Planning and Community and Rural Development	925120	Government establishments primarily engaged in the administration and planning of the development of urban and rural areas including Community development agencies, County Development agencies, land redevelopment agencies, redevelopment land agencies.
92 Public Administration	Administration of General Economic Programs	926110	Administration of General Economic Programs
92 Public Administration	Regulation and Administration of Transportation Programs	926120	Regulation and Administration of Transportation Programs
92 Public Administration	Regulation and Administration of Communications, Electric, Gas, and Other Utilities	926130	Government establishments primarily engaged in the administration, regulation, licensing, and inspection of utilities, such as communications, electric power (including fossil, nuclear, solar, water, and wind), gas and water supply, and sewerage.
92 Public Administration	Regulation of Agricultural Marketing and Commodities	926140	Regulation of Agricultural Marketing and Commodities
92 Public Administration	Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors	926150	Regulation, Licensing, and Inspection of Miscellaneous Commercial Sectors

92 Public Administration	Space Research and Technology	927110	Government establishments primarily engaged in the administration and operations of space flights, space research, and space exploration. Included in this industry are government establishments operating space flight centers.
92 Public Administration	National Security	928110	Government establishments of the Armed Forces, including the National Guard, primarily engaged in national security and related activities.
92 Public Administration	International Affairs	928120	Establishments of U.S. and foreign governments primarily engaged in international affairs and programs relating to other nations and peoples.

## Appendix B. List of Acronyms and Abbreviations

Term	Definition
C&S	Codes & Standards
CALCTP	California Advanced Lighting Controls Training Program
CCA	Community Choice Aggregator
CEDARS	California Energy Data and Reporting System
CO <sub>2</sub>	Carbon dioxide
CPUC	California Public Utilities Commission
DAC	Disadvantaged Communities
DEER	Database for Energy Efficient Resources
DER	Distributed Energy Resources
DSM	Demand-Side Management
EE	Energy Efficiency
EE PRG	Energy Efficiency Procurement Review Group
EM&V	Evaluation, Measurement & Verification
ET	Emerging Technologies
eTRM	[California] Electronic Technical Reference Manual
EUL	Effective Useful Life
HTR	Hard-to-Reach
HVAC	Heating, Ventilation, & Air Conditioning
IDSM	Integrated Demand-Side Management
IOU	Investor-Owned Utility
IP	Implementation Plan
kW, kWh	kilowatts, kilowatt-hours
M&V	Measurement & Verification (or, sometimes, Validation)
MAP	Market Access Program
NAICS	North American Industry Classification System
NMEC	Normalized Metered Energy Consumption
PA	Program Administrator
PAC	Program Administrator Cost
RCT	Randomized Controlled Trial
REN	Regional Energy Network

Term	Definition
RFA	Request for Abstract
RFP	Request for Proposal
SEM	Strategic Energy Management
TRC	Total Resource Cost
TSB	Total System Benefit
WE&T	Workforce Education & Training