PACIFIC GAS & ELECTRIC COMPANY

IMPLEMENTATION PLAN

California Energy Design Assistance Mixed Fuel (CEDAM) Program

May 28, 2021

WILLDAN

Table of Contents

CEDAM Overview

CEDAM Budget and Savings

CEDAM Name: California Energy Design Assistance Mixed Fuel (CEDAM)

CEDAM ID: SW_NC_NonRes_Ag_mixed, SW_NC_NonRes_Com_mixed, SW_NC_NonRes_Ind_mixed, SW_NC_NonRes_Pub_mixed, SW_NC_NonRes_Res_mixed

Exhibit 1. CEDAM Energy Efficiency Budget Tables[1]

Cost Categories	2021	2022	2023	2024	2025	2026	Total
Administration	$-	$122,575	$823,403	$1,769,700	$1,870,230	$807,290	**$5,393,198**
Marketing/Outreach	$-	$99,770	$670,212	$1,440,453	$1,522,280	$657,097	**$4,389,812**
Direct Implementation – Non-Incentive	$-	$456,093	$3,063,825	$6,584,928	$6,958,994	$3,003,871	**$20,067,711**
Direct Implementation – Incentive	$-	$310,802	$4,099,129	$9,832,581	$11,072,269	$4,998,648	**$30,313,429**
Total	$-	$989,240	$8,656,569	19,627,662	21,423,773	9,466,906	**$60,164,150**

Exhibit 2. CEDAM Gross and Net Energy Savings and Demand Reduction Goals Table[1]

CEDAM Goals	2021	2022	2023	2024	2025	2026	Total
Gross Electric Savings (kWh)	-	2,365,979	31,204,399	74,849,276	84,286,246	38,051,575	**230,757,475**
Net Electric Savings (kWh)	-	1,260,755	16,627,808	39,884,940	44,913,619	20,276,546	**122,963,666**
Gross Demand Reduction (kW)	-	617	8,135	19,513	21,973	9,920	**60,157**
Net Demand Reduction (kW)	-	342	4,514	10,828	12,193	5,504	**33,381**
Gross Gas Savings (therms)	-	110,376	1,455,740	3,491,835	3,932,085	1,775,165	**10,765,200**
Net Gas Savings (therms)	-	57,269	755,314	1,811,751	2,040,176	921,051	**5,585,561**

Exhibit 3. CEDAM Cost Effectiveness (TRC) No IOU Admin[1]

2021	0
2022	1.75
2023	1.84
2024	1.95
2025	2.01
2026	2.01

[1] Budgets, savings goals, and cost effectiveness shown in Exhibits 1-4 reflect the contracted amounts and vary from the draft 2022-2023 BBAL

Exhibit 4. CEDAM Cost Effectiveness (PAC)2

2021	0
2022	4.06
2023	4.31
2024	4.58
2025	4.87
2026	5.15

Type of CEDAM Implementer: Third-Party Delivered

Market Sector: Agricultural, Public, Multifamily High-Rise, Industrial, and Commercial

CEDAM Type: Resource

Market Channel: Statewide, Downstream

Intervention Strategies: Technical Assistance, Finance, Incentive

Timeline: May 2021-October 2026

Implementation Plan Narrative

1. Program Description

The California Energy Design Assistance Mixed Fuel (CEDAM) program serves commercial, public, high-rise multifamily, industrial, and agricultural new construction and major alterations facilities across the Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas and Electric Company (SDG&E) and Southern California Gas Company (SoCalGas) service territories. CEDAM contributes to the IOUs' efforts to achieve their share of California's ambitious energy efficiency (EE), greenhouse gas reduction, and Zero Net Energy (ZNE) goals. California policy makers established a clear objective to completely decarbonize by 2045 through SB100 and similar legislation. CEDAM also contributes to the IOUs' efforts to comply with the requirements of the California Public Utilities Commission's (CPUC) Decision 16-08-019, which directed IOU administrators to transition to third-party designed and delivered CEDAMs.

CEDAM offers EE options tailored to each building during the design and construction process. CEDAM offers technical assistance early in the process when it has the greatest influence on design and operation. CEDAM will drive energy savings beyond code and gather data to further advance future codes.

The objective of the CEDAM program is to enroll and influence the non-residential new construction market to achieve deeper energy savings and decarbonize through key activities such as outreach and education, real-time energy modeling, verification, and data tracking to inform future codes and standards. The CEDAM's key objectives are separated into the following:

- Educate A/Es on EE and IDSM
- Scale EE, DR, and IDSM cost effectively
- Accelerate code adoption of emerging technologies
- Drive decarbonization through IDSM
- Ensure savings accuracy and persistence with ongoing monitoring

[2] Budgets, savings goals, and cost effectiveness shown in Exhibits 1-4 reflect the contracted amounts and vary from the draft 2022-2023 BBAL

2. Program Delivery and Customer Services

CEDAM Savings Delivery: To serve the above market segments, the CEDAM program uses a multifaceted approach to customer enrollment, as highlighted in the exhibit below:

Exhibit 5. Strategies and Tactics to Support CEDAM Goals

Strategy	Tactic
Leverage existing relationships	▪ Leverage relationships from staff experience working with architects and engineers ▪ Track future expansion plans, customer sustainability goals, and bond referendums ▪ Use subscription services and media monitoring to identify qualified projects and A/E firms designing the projects
Build CEDAM Awareness	▪ Attend local, regional, and state industrial tradeshows ▪ Deliver social media and e-mail marketing campaigns: Content focus will emphasize customer value (i.e. increased asset value, ROI, student achievement, etc.) ▪ Host events at A/E offices to show how CEDAM aligns with commercial design schedules and challenges (e.g., code compliance, measure/fuel mix)
Gain Customer Trust	▪ Assign a sales team member with commercial architecture, industrial, agricultural, and sustainability background to be a trusted, relatable resource for architects ▪ Provide case studies comparing buildings of similar size, scope, and location to show value of EE/CEDAM services ▪ Utilize Certified Energy Analysts for review of projects
Tailor Sales	▪ Flexible services offered to meet individual customer needs (technical assistance, flexible incentive, financing assistance)
Overcome Participation Barriers	▪ Make participation easy with online application that determines project eligibility, potential ROIs, potential energy savings, incentives, and participation costs ▪ Reduce energy modeling time to match project design schedule ▪ Provide a single point of contact (SPOC) to facilitate participation ▪ Provide technical assistance services with no cost for participant to reduce obstacles on HTR projects

Reaching Customers: The marketing approach uses flexible and diverse strategies that appeal to the wide-ranging set of stakeholders (architects, engineers, developers, owners, sector, sub-sector, size, and geographic region). To elicit customer interest and solicit participation, a wide net is cast using a diverse pool of CEDAM partners, including community-based organizations that have strong existing relationships with key decision makers. To support sales efforts, CEDAM leverages marketing materials and collateral in various forms, including, but not limited to:

- CEDAM marketing and informational flyers
- Case Studies
- Direct mailers / postcards
- E-mail campaigns
- Virtual EE workshops/webinars
- Social media campaigns

Services Provided: The CEDAM's customer-first mentality extends into its service offerings. We use a consultative approach to understanding their projects needs and then reach into an expansive toolkit to provide custom solutions. The following services are part of this toolkit:

- Proactive outreach
- Technical assistance
  - Willdan will review CEC compliance models created by the project team or prescriptive compliance documentation provided by customer's design team to verify eligibility for CEDAM participation
  - Willdan will provide technical assistance early in the design using NEO to analyze energy efficiency measures and more efficient mechanical systems, then present options to the Project Team for their consideration with financial metrics
  - Willdan will calculate CPUC reportable savings to submit to PG&E and the CPR team and have all savings claims reviewed by a Certified Energy Analyst
- Financing assistance, including working with existing financing entities, offering on-bill financing where applicable, and connecting projects to third-party incremental financing such as PACE and Energy Efficiency as a Service
- Promoting EE-DR measures that are eligible for EE funds and encourage enrollment in DR CEDAMs that offer additional benefits
- Design-Team-Complete path with quality assurance provided by CEDAM

3. Program Design and Best Practices

The CEDAM program leverages five main activities, identified below, to reduce market barriers. These have been developed based on lessons learned and best practices identified through past CEDAM delivery.

1. Proactive outreach to identify projects early in the design process to enroll and influence
2. Education through Lunch 'n' Learns, results meetings, and industry events
3. Technical assistance with real-time energy modeling used to present multiple mechanical system and EE options early in the design process
4. Incentive approach begins with technical assistance to demonstrate cash-flow positive options; provides incremental financing and cash incentives as needed to overcome project challenges
5. Verification with ongoing monitoring to verify savings and promote persistence

These activities will assist in the achievement of the following CEDAM objectives:

1. Drive decarbonization and grid harmonization through EE delivery and IDSM education
2. Educate on decarbonization
3. Scale energy efficient buildings
4. Accelerate code adoption of emerging technologies
5. Ensure savings accuracy and persistence with ongoing monitoring

The table below identifies the CEDAM objectives and activities that will be deployed to overcome the market barriers:

Exhibit 6. Key Barriers to a Mixed-Fuel EE Program, Program Response, Activities to Meet Objectives

Barriers	Program Response	Activities					Objectives				
		1	2	3	4	5	1	2	3	4	5
Lack of access to energy modeling during schematic design to optimize EE and decarbonization and exceed Title 24 requirements	**Early energy modeling**, real-time with the Project Team to select the optimal EE path	■		■			■	■		■	
Unfamiliar with EE options and viability for each sub-sector	Initiate conversations early with A/Es, **clearly explain benefits of implementation** using applicable case studies, offer emerging technologies in analysis,	■	■	■			■	■			
Lack of access to new construction **data for codes and standards advocacy**	**Monitor and track** measures identified during design and subsequent implementation rates					■			■		■
Capital constraints	Connect to incremental **financing options first** for the incremental costs; **then cash incentives** as needed to move project beyond minimum requirements			■	■			■			
Customer confusion about programs, baselines, and incentives **decreases participation**	Early, consistent, and comprehensive energy modeling to **demonstrate benefit of EE**		■	■			■	■			
Multiple decision makers with competing business priorities	Work with competing business priorities by showing results in **metrics relevant to customer**			■	■		■	■			

Best Practices/Lessons Learned

The activities listed above were designed based on lessons learned and best practices identified through past CEDAM delivery. For example, CEDAM adds elements like early energy modeling and customer-relevant metrics to improve upon historic EE non-residential new construction program offerings.

4. Innovation

The CEDAM program combines innovative features, enabling all eligible customers to be served. These innovations allow the program to cost-effectively integrate distributed energy resources (DERs) and other integrated demand-side management (IDSM) resources to provide EE as a grid resource.

The innovations include:

1. Measure bundles and path to decarbonization
2. Real-time energy modeling
3. Analysis early in design
4. Targeting of grid-constrained areas with LoadSEER
5. Online application and platform
6. Proactive outreach
7. Flexible incentives and financing
8. Technical assistance as program offering
9. Ongoing performance monitoring

The program continues the iterative process to generate new innovations. As innovative practices are developed, they will be reviewed by the implementer on a regular basis to assess their impact and determine feasibility for wider adoption.

5. Metrics

CEDAM tracks program processes and provides clear, detailed insight into program status by capturing the following metrics:

- Savings (kWh, kW, therms)
- Savings to Goal
- Program cost effectiveness
- Budget Spent
- Savings to Budget Alignment
- Customer satisfaction by IOU territory
- Savings forecast accuracy
- Measure install pass rate
- Pipeline quality
- High-performance measure implementation
- Engineering quality
- CEA qualifications

6. To-Code Savings

Where to-code savings potential resides: CPUC Decision 17-11-006 requires that program execution lend insight into to-code savings potential. As a new construction and major alteration program, nearly all claimed savings will be for beyond-standard practice savings. The potential exception would be when major alteration projects include the accelerated replacement of functional equipment that is not required to be brought up to current energy code due to the scope of the alteration. CEDAM tracks and reports the specific to-code measures and savings by building type, segment, and geography. CEDAM will use a custom calculated approach for accelerated replacement (AR) to capture to-code savings.

7. Pilots

Pilots are not part of CEDAM at this time.

8. Workforce Education and Training

Expand/initiate partnerships with entities that do job training and placement: Implementation partners will provide training to project teams, including architects, engineers, and owners during the course of the program. CEDAM will also network with the statewide workforce education and training (WE&T) program and PG&E's Energy Training Centers to identify training opportunities that support program staff and participants.

Require placement experience for any new partners in the workforce, education, and training CEDAMs and new solicitations:

New partners will be appropriately placed based on experience and certifications. For partners seeking additional resources to improve their experience, CEDAM will assist in referrals to training programs and facilities (e.g., WE&T program, PG&E Energy Training Centers, AIA, ASHRAE).

Require "first source" hiring from a pool of qualified candidates, before looking more broadly, beginning with self-certification:

The CEDAM program prioritizes employing local residents when new positions need to be filled. This includes posting available roles to local job boards and recruiting within local workforce development programs, training centers, and CBOs. This also includes engagement, training, and working with local contractors with whom the customer already has a relationship. In doing so, the program can spread the strategy of comprehensiveness beyond partner contractors/integrators that are already familiar with the program approach.

Facilitate job connections by working with participating project teams (architects, engineers, developers, and owners) and utilizing energy training centers:

An online platform will allow for coordination and facilitation of participants. PG&E-hosted trainings will be leveraged when applicable. Program announcements will allow proactive engagement of participating project teams by promoting training offered by CEDAM, PG&E's and other IOUs' Energy Centers, and others to increase the depth of EE strategy per project.

9. Workforce Standards

CEDAM includes workforce standards and takes all prudent efforts to improve quality and reduce risk of lost lifecycle savings from poor installation, modification, or maintenance of EE measures.

HVAC Control Measures:

The standards pursuant to Decision 18-10-008 are applicable. The CEDAM includes the installation, modification, and maintenance of incentivized (potentially greater than $3,000 per project) HVAC measures in non-residential and high-rise residential buildings by program participants, triggering the applicable workforce standards. When required, the program verifies that the installation team has completed and/or is enrolled in a California or federally accredited HVAC apprenticeship, completed at least five years of work at the journey level, passed an HVAC system

installation competency test, received training specific to the equipment being installed, and has a C-20 HVAC contractor license from California's Licensing Board.

To further enhance quality and deliver deep, durable energy savings, CEDAM:

- Establishes workforce standards that meet or exceed those set forth in the contract with respect to apprenticeship, journey level experience, and licensing.
- Performs comprehensive QA/QC and requires targeted, remedial training based on those outcomes.

Compliance is demonstrated and enforced throughout the program life cycle by:

- Establishing workforce standards requirements in customer applications/project agreements that are tied to incentive eligibility.
- Collecting and verifying proper worker documentation ("qualified documents").
- Retaining "qualified documents" for reporting and periodic inspection by IOUs.

Lighting Controls Workforce Standards

The CEDAM program includes the installation, modification, and maintenance of incentivized (potentially greater than $2,000 per project) lighting controls measures in non-residential buildings by program participants, triggering the applicable workforce standards.

The CEDAM:

- Establishes workforce standards for lighting controls installations requiring California Advanced Lighting Controls Training CEDAM (CALCTP) certification where applicable.
- Tracks installing technicians for measures installed and maps measures to applicable trainings, providing valuable workforce education and training metrics.
- Performs comprehensive QA/QC, ties outcomes to specific technicians, and requires targeted, remedial training based on those outcomes.

Compliance is demonstrated and enforced throughout the CEDAM life cycle by:

- Establishing workforce standards requirements in customer applications/project agreements that are tied to incentive eligibility.
- Collecting proper worker documentation ("qualified documents"); for lighting controls projects, installer certification is obtained directly from CALCTP.
- Retaining "qualified documents" for reporting and periodic inspection by IOUs.

10. Disadvantaged Worker Plan

Willdan's program will provide Disadvantaged Workers with improved access to career opportunities in the energy efficiency industry by supporting outreach initiatives (training, mentorship, and/or apprenticeships) in collaboration with a combination of our subcontractor partners. Willdan will track and report Disadvantaged Worker participation in outreach programs, as well as program hiring, including the following metrics:

Exhibit 7. Outreach and hiring metrics

Outreach	Hiring
▪ # of training, mentorship, and/or apprenticeship opportunities offered ▪ # of participants ▪ # of staff and/or partner hours devoted to outreach initiatives	▪ # recruiting channels promoting access to Disadvantaged Workers ▪ % of job opportunities made available to Disadvantaged Workers ▪ % of candidates screened ▪ % of candidates interviewed ▪ % of candidates offered a position ▪ % of candidates hired

11. Additional Information

Not Applicable.

Supporting Documents

Summary of Program Manuals and Program Rules

The contents of this section address the topics set forth for "program manuals" in version 2.1 of the Implementation Plan Template Guidance document. Please note all the items below are discussed in further detail in the Program Management Plan submitted to PG&E.

1. Eligible Measures

California Energy Design Assistance Mixed Fuel (CEDAM) offers a full range of energy efficiency and demand flexibility measures, summarized in the "Incentive Tables, Workpapers, Software Tools" section. The program will continue to work toward expanding the measure list and ensuring a comprehensive offering.

CEDAM utilizes deemed and custom savings platforms to influence, calculate, and incentivize customers for energy savings. Deemed measures must have an approved workpaper or be listed in the current Database for Energy Efficient Resources (DEER) or eTRM. Custom measures must adhere to cost effectiveness thresholds and meet the criteria specified in the Statewide Custom Project Guidance Document.

2. Customer Eligibility Requirements

Customers meet the eligibility requirements for the program if they:

- Are a commercial, public, high-rise multifamily, industrial, or agricultural new construction or major alteration project.
- Major alterations are defined as meeting one of the following criteria[3]:
  - Changes in space function (building or space occupancy type change) OR
  - Substantial changes (≥30%) in design occupancy (square feet per person) OR
  - Increase (≥10%) in conditioned floor area OR
  - Any expansion or addition of substantial process or conditioning load to an existing facility
- Will be served by a participating IOU and plan on paying the Public Purpose CEDAMs (PPP) surcharge on their electric or natural-gas meter where the energy efficiency (EE) equipment is to be installed[4]
- Exceed standard practice, code and current design
- Sign online application, including Terms and Conditions
- Do not double dip/apply for savings or incentives between multiple EE programs or platforms
- Adhere to all applicable federal, state, and local laws and codes

3. Contractor Eligibility Requirements

In order to participate in the CEDAM program, installation contractors must meet the following CPUC requirements:

- Install all measures in accordance with all applicable federal, state, and local laws building codes, manufacturers' specifications, and permitting requirements.

[3] CPUC Decision 16-08-019, p.35-36, section 3.6 New Construction (including expansions and any added load); p.49, Table 1

[4] From the PG&E Platform Rulebook v1.0: Exception: Customers who are exempt from paying gas PPP per Public Utilities Code Section 896 need not meet this [PPP] requirement. These exempt PG&E customers include the United States government (federal facilities), United States Coast Guard, the American Red Cross, and Indian reservations

- If a contractor performs the installation or improvement, the contractor must hold the appropriate license for the work.
- A rebate or incentive can only be provided if the customer or contractor certifies that the improvement or installation has complied with any applicable permitting requirements, including the California Building Standards Code (Title 24 of the California Code of Regulations).
- If a customer or contractor is the recipient of a rebate or incentive offered by an energy efficiency program specifically for the purchase or installation of air-conditioning or heat pump units and their related fans, the rebate or incentive will be paid only if the customer or contractor provides proof of permit closure.
- Follow workforce standards pursuant to D.18-10-008.

4. Additional Services

Additional services our program may offer within our pay for performance agreement, if we believe they will lead to additional claimable savings for the program, include:

- Providing an Energy Master Plan to customers at the discretion of Willdan if we believe it will increase claimable savings
- Connecting customer to diverse financing options
- Providing an online platform with simplified application
- Facilitating Design Team complete program path
- Interface with Statewide and local programs

5. Audits

Not applicable to new construction.

6. Program Quality Assurance Provisions

Program success and customer satisfaction are rooted in adherence to our quality assurance procedures. CEDAM's quality assurance and quality control (QA/QC) procedures verify accuracy and completeness of documentation and record errors and corrections through documentation review and field verification. The implementer's experienced partners will continue to improve program QA/QC processes and tools. Partnered firms will oversee tool development, refer to the Custom Review Guidance Document, review checklists for early screening, and review application and installation reports. These firms will assess program-level performance.

Additionally, QA/QC tools are built into an online platform and follow a four-step process: (1) Early Screening, (2) Application Review, (3) Post-Installation Review, and (4) Feedback and Refinement. Each step has a checklist that must be completed before advancing to the subsequent step which includes reviewing calculations and documentation by the energy modeler, verification technician, the project manager, and an internal 3rd party reviewer.

7. Other CEDAM Metrics

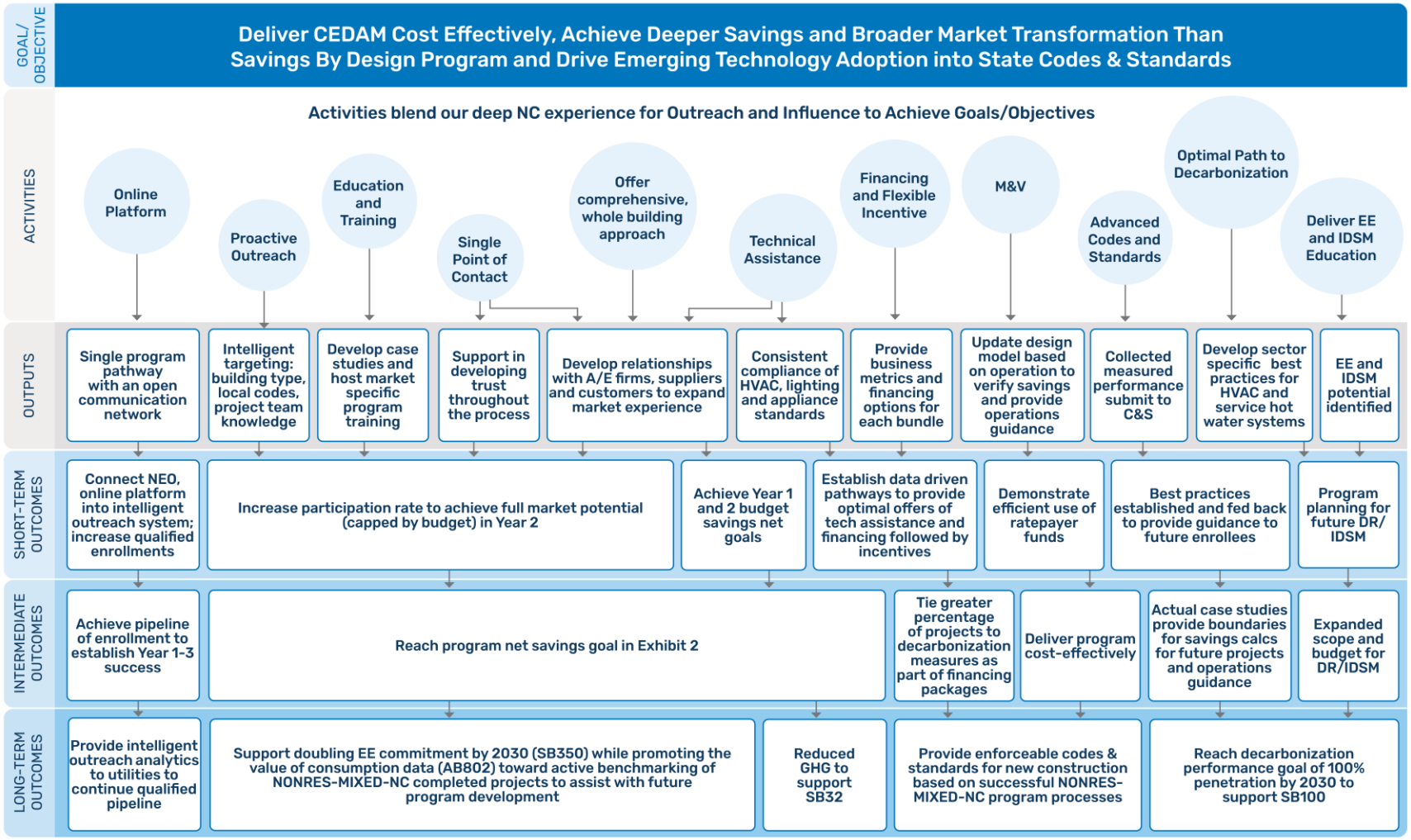
An online platform tracks the following data points and KPIs:

- Gross kWh Annual and Lifecycle Savings
- Net kWh Annual and Lifecycle Savings
- Gross kW Annual Lifecycle Savings
- Net kW Annual Lifecycle Savings
- Gross therm Annual Lifecycle Savings
- Net therm Annual Lifecycle Savings
- Project and Program TRC Ratios
- Budget Spent
- Budget Allocated
- Measure Inspection Fail Count/Rate
- Number of Customers in Each Status/Phase of Project (contacted, lead, enrolled, etc.)
- Customer Satisfaction Survey Results
- Forecasted Savings and Budget (monthly, quarterly, annually)

Program Theory and Program Logic Model

The program theory is to increase energy efficiency and IDSM adoption rates in non-residential and high-rise residential sectors. The activities listed in the program Logic Model below lead to outputs and short-term, intermediate, and long-term outcomes.

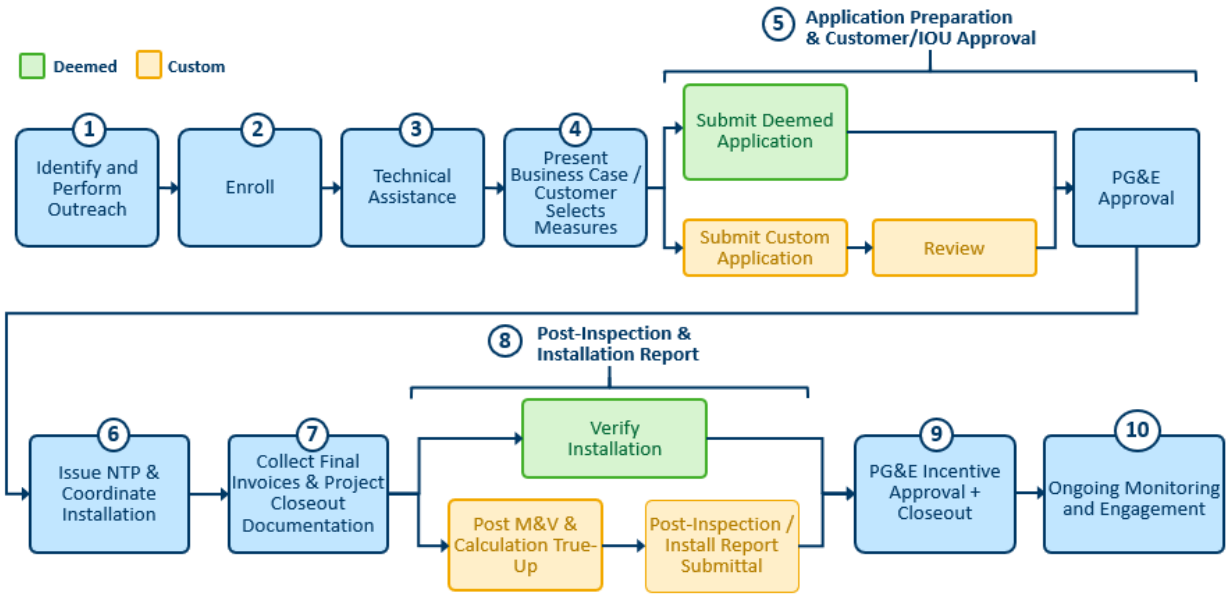
Exhibit 8. CEDAM theory and logic model



Process Flow Chart

A typical project in the California Energy Design Assistance Mixed Fuel program will include the following major steps:

Exhibit 9. Process flow chart



Step 1 – *Identify and Perform Outreach*. Implementer follows strategies outlined in the CEDAM program marketing plan using data-driven approaches to identify new construction projects and their project teams. Next, the implementer team reaches out to the targeted list, leveraging existing relationships and new outreach channels.

Step 2 – *Enroll*. Implementer enrolls customer; application and Site Access Agreement form are signed by the project team. Project eligibility will be verified prior to enrollment. Projects must identify the following: the current state of EE in their design, that equipment has not yet been ordered, barriers to implementing efficiency, budget constraints, payback requirements, and early enough in design that additional EE measures can feasibly be included. Projects will be screened for potential for program influence., and cost effectiveness. Project enrollment initiates the technical assistance services to identify potential EE measures.

Step 3 – *Technical Assistance*. Implementer or Project Team (for Design Team Complete) performs a comprehensive analysis of EE opportunities and customer barriers for the project.

Step 4 – *Present Business Case*. Implementer or Project Team (for Design Team Complete) presents the list of recommended measures, report of findings (savings, costs, detailed measure descriptions), along with the technical services, financing options, and/or incentives offered. Customer's specific decision-making needs are addressed during presentation of the business case. Customer selects measures for implementation.

Step 5 – *Application Preparation and Approval*. For Design Team Complete projects, Implementer reviews savings calculations, project and measure incremental costs, program influence, standard practice determination and application, for all projects. Willdan prepares Deemed or Custom Application for Ex Ante review, including savings calculations. Submittal of report and supporting documents triggers review. Step 5 may also include CPUC project review for selected projects. Applications are approved by PG&E prior to implementation. Implementor will collect and review Title 24 compliance documentation to verify program eligibility.

Step 6 – *Issue Notice to Proceed (NTP)*. Upon PG&E approval of the project, the customer is sent a NTP, allowing the installation phase to begin. Then, project team procures materials and schedules and completes installation of measures. Decreased savings after the NTP may impact program eligibility, and increased savings beyond 10% will require resubmitting for review.

Step 7 – *Collect Final Invoices and Closeout Documentation*. Following the installation of all project measures, final documentation is submitted for desktop review. This includes final invoices, estimated costs for baseline building, calculations, photos, cut sheets, and W-9 form provided by the Project Team.

Step 8 – *Post-Inspection and Installation Report*. For Deemed projects, implementer verifies installed quantities, obtains invoices, and receives final customer sign-off on Installation Report. For Custom projects, implementer verifies post-operating conditions, performs post-installation trending, completes the Installation Report, and obtains customer sign-off. This triggers PG&E post-inspection and Installation Report review and updates as needed due to review. Step 8 may also include CPUC project review for selected projects.

Step 9 – *Incentive Approval and Closeout*. Implementer completes the incentive process. Incentive is paid to the recipient noted in the project documentation.

Step 10 – *Continuous Monitoring and Engagement*. Primarily accomplished using utility meter data, may also use a combination of existing building automation systems, installed energy management technologies, and project-specific monitoring equipment (applies to select projects such as alterations or industrial/agricultural processes).

Incentive Tables, Workpapers, Software Tools

Incentives are dependent on installed project savings. Incentives will be capped at the maximum values shown in exhibit 10 below, and the cost caps may be adjusted lower by the program implementer as needed throughout the program. Incentives will be paid after measures are verified as installed and operational.

Exhibit 10. Incentive types, cost basis, EUL, and incentive caps

Measure Application Type	Baseline	Cost Basis	EUL	Custom Incentive Cap	Deemed Incentive Cap
New Construction (NC)	Code/Standard Practice	Incremental (IMC)	Measure EUL	Lesser of 100% of IMC or 50% FMC	Lesser of 100% of IMC or 50% FMC
Normal Replacement (NR)	Code/Standard Practice	Incremental (IMC)	Measure EUL	Lesser of 100% of IMC or 50% FMC	Lesser of 100% of IMC or 50% FMC
Accelerated Replacement (AR)	Dual	Accelerated Replacement (ARC)	Lesser of measure EUL or RUL of existing	100% of ARC	100% of FMC
Add On Equipment (AOE)	Existing	Full Measure (FMC)	RUL of existing	50% of FMC	50% of FMC

Deemed measures must have an approved workpaper, be listed in the current Database for Energy Efficient Resources (DEER) or eTRM. The program also offers custom measures with the same measure application types listed on Exhibit 10 that are eligible for statewide and local programs.

Incentives are calculated using net lifecycle kWh, kW, and therm savings, using NTG ratios and EUL values. Tiered incentive rates are applied based on percent savings above standard practice, flexible within the maximum ranges stipulated in the contract.

Projects may also be eligible for additional incentives based on the following criteria:

- Hard-to-Reach and Disadvantaged Community kicker amounts
- Grid Constrained Load Shape Benefit Multiplier

New custom or deemed measures may be pursued by the program over the life of the contract as they are added to the eTRM and/or DEER or other approved sources. Workpapers and measures may be added or deleted based on CPUC rulings throughout the lifetime of the program.

Quantitative Program Targets

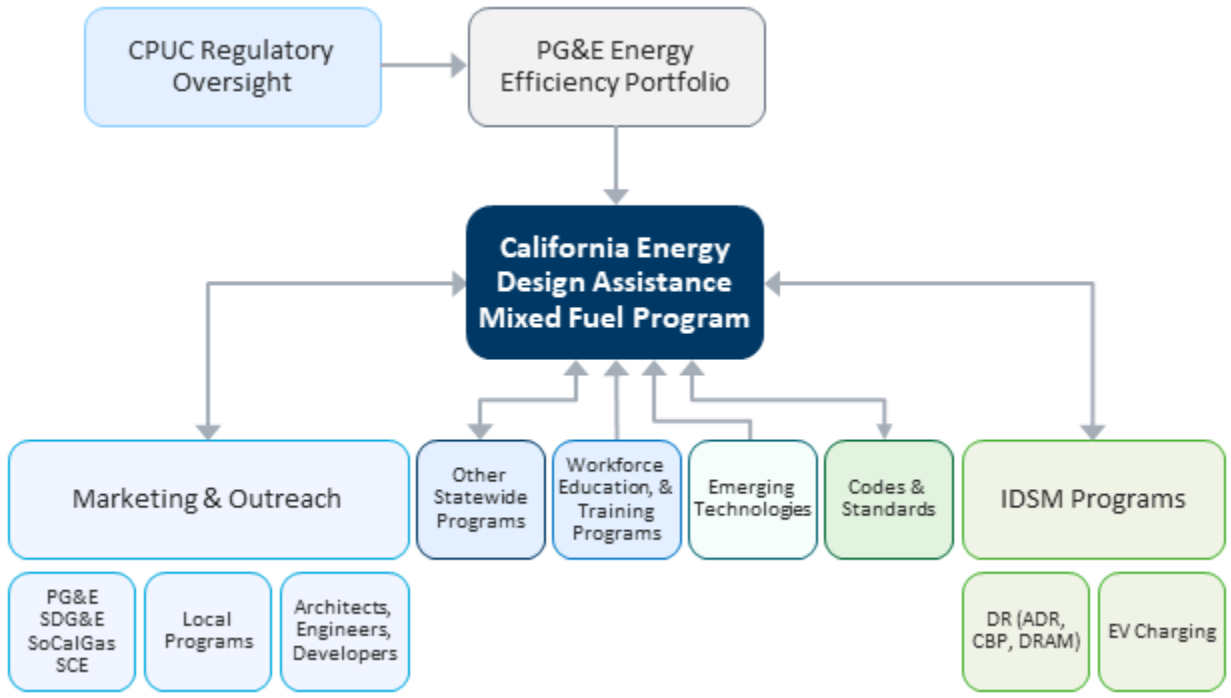
Exhibit 11. *Quantitative program targets by year*

Year	2021*	2022	2023	2024	2025	2026	Total
Total Customers Served	0	18	233	558	627	284	1,720
Hard-to-Reach (HTR) Customers Served	0	1	10	22	25	11	69
Incentives Delivered[1]	0	$310,802	$4,099,129	$9,832,581	$11,072,269	$4,998,648	$30,313,429

**Note: 2021 has no incentives or customers served because of the time delay due to project construction. In 2021 the program will be enrolling and providing technical assistance to projects, but savings will be claimed when the measures are installed, typically 18 months after enrollment.*

Diagram of CEDAM

Exhibit 12. *CEDAM diagram with linkages to other EE Programs*



Evaluation, Measurement & Verification (EM&V)

The purpose of EM&V at the program level is to provide ongoing performance feedback during implementation, produce impact evaluations once the program term is over, and to inform planning for future program cycles. To provide robust program EM&V, the implementation team ensures program data integrity through rigorous Quality Assurance/Quality Control (QA/QC) procedures and extensive records retention. These data collection and review strategies are embedded in the design of the program from end-to-end. This promotes accurate reporting and allows near-term optimization of program performance.

The implementation team is committed to providing quality program delivery and meeting customer needs, compliant with PG&E and CPUC requirements and statewide guidance. California Energy Design Assistance Mixed Fuel program integrates project and program management tools, providing a platform for sharing information with all stakeholders. The QA/QC procedures were developed and will be overseen by a team of industry experts, with emphasis on continuous improvement in response to QA/QC metrics, cost-effectiveness tracking, and any changes in legislation, regulation and technologies.

8. Quality Assurance Plan (QAP) Features

The QAP has the following features, the full plan is included in the Program Management Plan:

- Oversight by Industry Expert Partners: Program partners, including EM&V experts, oversee QA/QC training, review tool development, manage execution of QA/QC procedures, and provide full process review and analysis of program level metrics for Key Performance Indicators (KPIs). Our quality assurance effort integrates with M&V and drives continuous process evaluation and improvement.
- QA/QC Process Review Tools: Third-party program partners will oversee development and continuous improvement of QA/QC review documents, consolidating guidance from various sources and QA/QC checklists refined from the existing CPUC checklist.
- Early Screening: Willdan justifies measure eligibility, influence, measure application type, and other measure attributes, then screens for project cost effectiveness prior to submittal of application. Willdan may opt to send completed Early Screening documents to PG&E for approval prior to completion of Pre-Installation reports.
- Enforcement, Documentation and Transparency: Program staff enforce QA/QC procedures, requiring sign-off of review checklists by senior level engineers before project advancement. The program implementer provides visibility to submittals and QA/QC documentation and tracks QA/QC metrics.
- M&V Plans: Custom projects require development and execution of M&V plans, compliant with the most current versions of the Statewide Custom Project Guidance Document, LBNL site Level Technical Guidance and International Performance Measurement and Verification Protocol (IPMVP).
- Customer Satisfaction: The QAP reduces review times and errors, preventing erosion of savings and incentives with the aim of satisfying PG&E customers.
- Continuous Improvement: Feedback of our QA/QC metrics will be used to revise our review tools and guidance documents as well as targeting training of Willdan engineers and Trade Pros.

9. Data Collection and Management to Support EM&V

Comprehensive and thoughtful data collection practices are vital for streamlining EM&V efforts. Our detailed data collection plan is included in the Program Management Plan. The implementation team will obtain and securely manage all data including internal and external (e.g., customer interaction) program activities. Examples of these activities include targeting, outreach, project scope definition, project installation, QA/QC, invoicing, and performance tracking. EM&V industry expert partners provide feedback on our data collection process to ensure support for process and impact evaluations.