DRAFT

PROGRAM IMPLEMENTATION PLAN

COOLSAVE

PREPARED FOR

PG&E

NOVEMBER 30, 2020

kW ENGINEERING

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Program Overview

CoolSave is a comprehensive retrofit and commissioning program that targets the energy-intensive supermarket sector. It is an innovative, pay-for-performance, efficiency and demand response (DR) program. The program provides technical assistance and incentives for participants, via two program pathways:

- Comprehensive retrofits with significant capital investment (CapEx Projects)
- Low-cost retro-commissioning and minor equipment retrofits (OpEx Projects)

The program addresses end-uses including commercial refrigeration, controls, HVAC, lighting, cooking, and packaging. It applies a normalized metered energy consumption (NMEC) approach with real-time controls connectivity to deliver cost-effective capital, retro-commissioning and demand-response results.

Program Budget and Savings

1. Program Name

CoolSave

2. Program ID Number

PGE_Com_001

3. Program Budget Table

Table 1: Program Budget Summary

EE Program Budget	
3P Program Administrative Costs	$ 636,260
Marketing & Outreach Costs	$ 207,350
Direct Implementation: Incentives & Rebate Costs	$ 1,506,049
Direct Implementation: Non-Incentive (DINI) Costs	$ 2,933,513
SUBTOTAL	$ 5,283,172
IDSM Program Budget	
3P Program Administrative Costs	$ 127,252
Marketing & Outreach Costs	$ 41,470
Direct Implementation: Incentives & Rebate Costs	
Direct Implementation: Non-Incentive (DINI) Costs	$ 362,041
SUBTOTAL	$ 530,763
TOTAL	**$ 5,813,935**

4. Program Gross Impacts Table

Table 2: Annualized First-Year Energy Savings - Net

ANNUALIZED FIRST-YEAR ENERGY SAVINGS - GROSS								
Calendar Year:	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Total**	**Lifecycle**
kWh	-	1,476,863	6,235,643	7,056,123	-	-	14,768,629	110,764,740
kW	-	149	630	713	-	-	1,493	1,572
therms	-	-	-	-	-	-	-	-

5. Program Cost Effectiveness (TRC)

1.2

6. Program Cost Effectiveness (PAC)

1.70

7. Type of Program Implementer

Third party-delivered

8. Market Sector

Commercial sector customers

9. Program Type

Resource

10. Market Channel and Intervention Strategies

Downstream; Retrofit, Retro-Commissioning, Incentive, Financing Assistance, Technical Assistance

Implementation Plan Narrative

1. Program Description

Brief Summary

The CoolSave program is an innovative, pay-for-performance, efficiency and demand response (DR) program targeting the energy-intensive grocery sector. It leverages the NMEC platform with real-time controls connectivity to deliver cost-effective capital, retro-commissioning and demand-response results. CoolSave targets the energy-intensive supermarket sector, leveraging existing refrigeration and building controls and available meter data to deliver cost-effective energy and peak savings that persist through technical assistance, incentives, value-added fault detection and options for DR.

Program Rationale

The commercial grocery segment has high energy use intensity and untapped market potential. Title 24 requirements for commercial refrigeration have steadily increased, improving efficiency and controls

capabilities. However, energy management practices in the sector are poor, and many of the optimizing features of controls are poorly implemented. CoolSave addresses this need directly with technology to automate commissioning, better manage energy use post-implementation, and maintain persistence.

The grocery sector is a unique market segment with specific customer needs, equipment and measures. A highly specialized team with a well-established reputation in the industry is required to work successfully with customers. Broad commercial programs and rebates miss the opportunity to achieve deep savings without a comprehensive approach.

Typical rebate offerings do little to meet the real needs of the target market – addressing existing equipment that is poorly commissioned and minimizing the hassle of custom program participation. Many existing grocery stores with advanced controls do not make good use of those controls.

The grocery sector has a vast untapped potential for demand-response savings. To date, lack of technical experience with the "nuts and bolts" of commercial refrigeration has prevented energy efficiency programs from pursuing DR in critical refrigeration systems, forcing DR in supermarkets to focus on lighting for curtailable load. CoolSave focuses instead on the real sizable loads in grocery – the refrigeration system itself as a source of curtailable loads that can provide demand response capability, without notice by customers or store employees, without harming product quality or influencing sales.

Program Objectives

The CoolSave program addresses all end uses including commercial refrigeration, controls, HVAC, lighting, cooking, and packaging. The primary objectives are to reduce electric consumption and demand, however, there are modest, related energy savings to natural gas HVAC and water heating equipment. Specific objectives include:

- Motivating customers to participate and complete comprehensive capital-investment projects.
- Enabling customers to make low-cost improvements by providing technical assistance and project management.
- Maximizing energy savings and savings persistence by providing remote ongoing persistence monitoring.
- Engaging customers in an underserved segment.
- Enabling automated demand response.
- Reducing M&V costs by using an NMEC approach.

2. Program Delivery and Customer Services

Delivery Strategies

Energy savings are delivered through:

- Comprehensive retrofits with significant capital investment (CapEx Projects)
- Low-cost retro-commissioning and minor equipment retrofits (OpEx Projects).

The CapEx incentive is large, relative to other custom program offerings, in order to offer the most comprehensive retrofits possible. It is staged in two payments, one following installation (60%), and one following a performance period, to ensure proper commissioning and persistence, and to "true-up" to metered performance. Final CapEx incentive payments are normalized to historical weather data (CZ2018). The OpEx incentive (Implementation Assistance Incentive) is a relatively low-cost incentive to enable immediate project implementation for low-cost measures. The two program pathways are summarized below.

Table 3: Program Paths

Program Path	OpEx Path – Low Cost	CapEx Path - Investment
Services	Retro-commissioning 1-yr Remote Monitoring 1-yr Fault Detection	Project Scoping / Analysis Design Assistance Commissioning 1-yr Remote Monitoring 1-yr Fault Detection
Incentive	Implementation Assistance Incentive: Up to $2,000 to cover labor and materials to support RCx	$0.12 / kWh incentive 60% post install 40% after 1-yr "true up" based on meter-based savings
Rationale	Even small cost approvals can stand in the way of progress. Offering small "low hassle" incentives can overcome these hurdles.	This incentive level is enough to move the market to action. Making payment contingent on performance aligns customers interests with the program savings.

Demand response is delivered through an innovative platform that provides remote energy management as part of the approach to retrofits and retro-commissioning. The platform allows the CoolSave team to communicate, over secure networks, directly with the refrigeration controls system. This link enables detailed data collection from the controls system and applies fault detection algorithms to spot sub-optimal operation. It also enables the ability to "push" automated demand response (ADR) control signals to the store, allowing a cost-effective means to achieve DR, while monitoring case temperatures to assure proper storage temperatures are maintained during the DR event.

Customer Outreach

Direct and indirect outreach efforts to potential customers include one-to-one outreach to owners, operators, and trade allies, a program website, industry-focused webinars, outreach through industry groups, social-media posts, and direct email.

- **One-to-One Outreach:** Enrollment through one-to-one "warm calls" with known owners, operators, and trade allies has proven to be successful in other jurisdictions. The grocery industry is a relatively small, close-knit community and kW's name is already a widely known, trusted partner. Outreach calls followed by one-to-one meetings to clarify program concepts and solicit enrollment are a reliable enrollment method in this market sector.
- **Industry Outreach and Webinars:** The program solicits and sponsors advertising and outreach through trade organizations such as the North American Sustainable Refrigeration Council (NASRC), Food Marketing Institute (FMI) and the California Grocers Association (CGA). FMI is the pre-eminent venue for grocers to share information about energy efficiency and kW has been a featured presenter at multiple national conferences. CGA is a regional source for targeting California-specific owners and operators.
- **Website:** On the program website, potential program participants can find information about program details and request a call from our staff. Traffic to the site is driven by proven search-engine-optimization approaches that focus on thought leadership and content.
- **Social Media:** The program increases customer and industry awareness through search engine optimization content, LinkedIn, twitter and direct email.

Customer Services

In addition to delivering energy savings through qualifying measures, CoolSave participants benefit from the following direct implementation services:

- Project scoping, energy audits, and project identification.
- Technical assistance with savings estimation and program participation.
- Project review and post-installation verification and limited commissioning.
- Optional ongoing, web-based, remote fault detection and diagnostic detection to identify additional opportunities for savings and help the CoolSave team maintain controls sequence persistence.
- Optional centralized alarming and case-temperature monitoring. The remote portal allows participant firms to add email, SMS, and web-based alarming to their controls at no cost. Unlike most alarm monitoring, the CoolSave system allows for one portal, even if multiple controls platforms exist at individual sites.
- Demand-response scoping and facilitation. The project team quantifies demand response capabilities and potential during the on-site investigation with project participants. Demand response implementation incentives are made available to those with an interest in participation. Participants may receive technical assistance to test and verify system performance.
- Portfolio-level benchmarking. As another program value-add, these services help identify problem stores and assist their team in their overall energy management approach.
- Assistance with financing projects, through the On-Bill Financing Program or other means, will be provided on an as-needed basis.

3. Program Design and Best Practices

The CoolSave program promotes deep, persistent, and long-lived savings through three primary means. The principal benefits of the program are reliable, cost-effective, and deep savings in one of the state's highest-consuming market sectors.

- The program offers very compelling incentives of $0.12 /kWh, but only for projects where long-life, capital changes are made in the building. This approach motivates market participants to complete more comprehensive retrofits with longer measure lives.
- Retrofit incentives are paid out in full only after a one-year performance period. During this period, the team monitors the energy use at the store to ensure that measures remain commissioned and savings materialize. This oversight is achieved by viewing controls remotely, automating fault detection, and tracking metered performance for our sites. This allows the team to quickly identify problem installations and take corrective actions to ensure measure persistence.
- The program capitalizes upon retrofit opportunities that will arise as California refrigerant regulations adapt to CARB's proposed phase-out of HFCs. Policy shifts will begin to drive owners towards full refrigeration-system retrofits that phase out HFCs. This trend will begin to have effects on the market in 2020 and increase over the 3-year implementation window.

The CoolSave program also makes a path to retro-commissioning (RCx) available for those owners who do not wish to make large capital investments. Allowing this path, for some RCx measures with shorter lifetimes, is a necessary market reality. Skipping RCx all together would pass over large, cost-effective opportunities in stores that are poorly operated. Rather than an incentive per kWh, the RCx incentive matches the customer's investment in retro-commissioning up to $2,000.

Market Barriers

The CoolSave program aims to reduce market barriers to energy efficiency by encouraging comprehensive retrofits and providing expert technical support. Many grocery stores already have advanced controls installed but are not fully taking advantage of them to save energy. These opportunities can go unaddressed because of the funding and technical support required to make the appropriate controls changes. The CoolSave program overcomes this barrier for program participants by covering the expense of low-cost OpEx projects and providing support through the entire implementation process.

For capital investment projects, the program encourages comprehensive retrofits with low-hassle incentives. Market participants have been discouraged from implementing projects with custom incentive approaches due to the significant time commitment required to quantify savings, apply for incentives, and follow up with inspections and inquiries. The CoolSave program mitigates these issues by assuming these technical responsibilities for the participating customer, allowing the incentives to stretch further towards making more projects cost effective overall, from the customer point of view.

CoolSave also encourages customers to implement a large variety of efficiency measures by leveraging the NMEC platform. A key feature of NMEC is that it allows the program to "credit" stores for any savings over baseline, promoting whole-building, comprehensive retrofit projects that include lighting, refrigeration and other end uses.

Key Software Tools

NMEC Platform

The program relies on the NMEC platform as authorized by AB802 to realize savings from existing baselines. kW Engineering relies on our open-source "nmecr" tool for calculating NMEC project savings.

The NMEC approach to energy efficiency provides multiple benefits to our participant customers, PG&E, and California ratepayers. NMEC allows us to:

- Incentivize upgrades to existing equipment. These incentives will be particularly important as we near 2022 when HFC phase-outs in the refrigeration industry (CA SB 1013) begin to drive the adoption of low Global Warming Potential (GWP) refrigerants, forcing refrigeration equipment upgrades.
- Provide value-added energy-efficiency services to participant customers, including case temperature monitoring and automated fault detection.
- Provide whole-building anomaly detection to identify non-recurring events when they happen.
- Incorporate savings from behavior, retro-commissioning, and operational (BRO) measures, especially RCx.
- Ensure measure persistence through post-installation monitoring.

Demand Response

Installation of an ADR connection gives our team the ability to directly curtail load at participant grocery stores. In addition to making onsite equipment visible, the CoolSave team has developed a means to "push" automated demand response (ADR) control signals to commercial refrigeration systems prior to, or during DR events. This integration is low-cost, typically requiring no additional hardware at the site.

The simplicity of this system is in stark contrast to competing technologies that use hardware input/output signals to pass controls over hard-contact control I/O ports. Those platforms require programming to translate those I/O signals into local control sequences that must be pre-programmed, individually, for

each site. Under the CoolSave program approach, the same outcome can be achieved without hardware, using a remote interface to accomplish the same end result – an updated sequence of operation, with fewer points of potential failure, and better visibility to store case temperatures to ensure maintenance of product quality.

The CoolSave program approach uses an innovative algorithm to avoid any negative impacts from curtailing refrigeration loads. By using the enormous thermal storage capacity of the stores themselves, the program sheds or staggers load among systems. Alternatively, participants may opt to employ additional thermal storage mitigation measures, to extend demand the response window, and minimize any impacts to products. Using either method, the program ensures no product loss due to continuous monitoring and maintaining of case temperatures using a platform offered by the program, or other 3rd party dashboards.

4. Innovation

The CoolSave program is innovative in three principal ways that, combined, make the program more effective and measures more persistent, while offering valuable ancillary benefits to the grid and California ratepayers. Value-added components of the program further make it attractive to customers while offering significant cost saving opportunities for retrofits and increased direct revenue from demand response opportunities. The primary innovations of the program are:

- NMEC Program Delivery,
- Automated Fault Detection and Diagnostics, and
- Integrated "No-Complaint" Demand Response Strategy.

NMEC Program Delivery

The CoolSave team is a pioneer in adopting NMEC methods to calculate savings and provide measured energy savings results using whole-building interval data. Its team saw the cost-effective utility of whole building data early and developed tools to utilize that data. The CoolSave team's open source R code library uses multivariate regression techniques to develop baseline models, verify the statistical validity of those models (R2, CV-RMSE, NMBE and others), and then annualize post-retrofit savings using typical weather data.

The NMEC platform that the CoolSave team will leverage for this program holds a unique ability to capture savings in this market sector for several reasons:

- An "existing conditions" baseline allows for the incentivizing of projects beyond what would otherwise be limited by "above-code" program rules. The program is better able to move the market more completely by offering incentives for projects that owners want to pursue, but that do not meet their cost-effectiveness thresholds under other designs. The program therefore captures savings that would otherwise not occur.
- The reliance on demonstrated savings helps the CoolSave team focus on delivering savings at the meter, rather than defending them on paper. This approach helps speed up project delivery relative to prior custom review approaches.
- A metered approach helps treat project sites more holistically. Prior approaches, for instance, made it difficult to implement RCx and capital improvement projects at a given site. A metered savings approach makes this possible because the focus is on savings, and the interactive effects of measures is automatically quantified.

The NMEC platform offers significant benefits to customers, including:

- Encouraging projects with multiple measures.
- Transparency of energy savings. Customers immediately understand monitored savings and appreciate the clear demonstration of savings.
- Timely corrections and adjustments. Because savings are tracked at the meter, our team can monitor sites and take corrective actions if measures are disabled or fail.

Automated Fault Detection and Diagnostics

Automated fault detection and diagnostic capabilities help ensure measure persistence without multiple post-installation visits to sites. The CoolSave program leverages a combination of hardware and software designed specifically to collect real-time, system-level data in buildings, and push that data to the "cloud." They allow the team to:

- Collect real-time, whole-building, electric energy usage data and push that data securely to the cloud. From there, the team can view that data, perform diagnostic analyses, and utilize it for pre-install and post-install modeling.
- Provide system-level data to identify energy efficiency measures.
- Attract participants as a value-added service. CoolSave centralizes and automates alarm dispatch via SMS text or email – a significant value-add to program participants.

The CoolSave team will collect electric consumption and system-level performance data. System-level data will be used by engineers on the team to identify energy saving opportunities and provide added value to participants through monitoring across multiple control platforms, as well as automated fault detection and diagnostics.

Demand Response Integration

The CoolSave team can communicate, over secure networks, directly with the refrigeration controls system, allowing the program to cost effectively implement Automated Demand Response (ADR) load shed requests in the store rather than simply sending an ADR signal that then has to be locally mediated by additional input/output equipment and protocols. For those participant customers that are interested in DR, the team will facilitate PG&E's ADR incentives and provide technical assistance to test and verify system performance. Specific IDSM activities will be tailored as needed based upon site and customer needs and may include the installation of ADR capability at participants site, platform data collection and more. Demand response may be implemented using the program's ADR capability or other 3rd party provider.

5. Metrics

The CoolSave team will use a relational database that contains key metrics needed to support tracking and reporting of Key Performance Indicators (KPIs). Custom reports can be generated to automate the reporting of project participation, project identification, and expected, approved and verified savings. Participant billing data can also be easily imported using PG&E's "Share My Data" API, where the team can pre-screen NMEC sites, establish baseline performance, and track savings achievement.

Key Performance Indicators are outlined below:

- Program Data Quality
- Savings Forecast Accuracy

- Engineering Quality
- Pipeline Quality

Savings Measurement & Reporting

The program ramps up to an estimated total participation of 81 stores over a 3-year program implementation period. Net program impacts are estimated at:

Table 4: Electricity Consumption and Peak Demand Savings Estimates - Net

Electricity Consumption Savings	14,768,629 kWh
Electric Peak Demand Savings	1,493 kW

6. For Programs Claiming to-Code Savings

Not applicable to the CoolSave program.

7. Pilots

Not applicable to the CoolSave program.

8. Workforce Education and Training

The CoolSave program will have a number of webinars to engage market actors in the grocery segment. The webinars will educate potential participants and trade allies of the opportunities for energy savings and demand response in commercial grocery systems.

The technical support provided by the program also provides an opportunity for learning between site staff, contractors, and engineering staff in the grocery segment. As part of the project implementation process, technical staff work side-by-side with contractors on site. This approach helps disseminate information about successful control strategies and implementation through the industry, as well as develop “buy-in” to the recommended control approaches that are necessary for measure persistence.

9. Workforce Standards

HVAC Workforce Standards

The expectation is that few or no projects in the CoolSave program (under 5%) will fall under the HVAC workforce standards, as most of the proposed projects will focus on refrigeration and lighting retrofits. However, in the unlikely event that comprehensive retrofit projects do trigger the HVAC workforce standards, the program will meet all of the requirements adopted as part of the California Public Utilities Commission (CPUC) ruling.

A trained and qualified workforce helps ensure that energy efficiency projects are installed and commissioned correctly. In the unlikely event that the program includes HVAC measures that trigger the workforce standards requirements, the CoolSave team incorporates the CPUC’s standards by taking the following steps:

- Customer agreements for incentives make notice of the applicable requirements. Program eligibility is contingent upon acceptance of the workforce standards for HVAC measure

implementation according to CPUC decision D.18-10-018.

- The terms and conditions of any subcontractors employed to perform HVAC retrofits under the program include requirements to meet these workforce standards. These terms include financial issues, contract termination, payment terms and incentive structures, progress and evaluation metrics, disadvantaged workers, and intellectual property, in alignment with CPUC decision D.18-10-018.
- Compliance is tracked on a project-by-project basis. Contractors who provide HVAC installation and commissioning are required to document their compliance through an explicit, signed agreement with the CoolSave team. Compliance with this requirement is tracked for each project and contractor, and compliance is reported to PG&E as part of the periodic reporting format.

Lighting Controls Workforce Standards

The expectation is that lighting workforce standards will be applicable to approximately one-third of all projects in the CoolSave program. The program may include significant lighting and lighting controls retrofits, and if so, it is likely that projects in the program will exceed the $2,000 threshold.

A trained and qualified workforce helps ensure that energy efficient lighting controls projects are installed and commissioned correctly. The CoolSave team will incorporate the CPUC's required workforce standards by taking the following steps:

- Customer agreements for incentives make notice of the applicable requirements. Program eligibility is contingent upon acceptance of the workforce standards for lighting measure implementation according to CPUC decision D.18-10-018.
- The terms and conditions of any subcontractors employed to perform under the program include requirements to meet these workforce standards. These terms financial issues, contract termination, payment terms and incentive structures, progress and evaluation metrics, disadvantaged workers, and intellectual property, in alignment with CPUC decision D.18-10-018.
- Compliance is tracked on a project-by-project basis. Contractors who provide lighting installation and commissioning are required to document their compliance through an explicit, signed agreement with the CoolSave team. Compliance with this requirement is tracked for each project and contractor, and compliance is reported to PG&E as part of our periodic reporting format.

10. Disadvantaged Worker Plan

The CoolSave program meets PG&E's goals and CPUC guidance regarding disadvantaged workers by incorporating the following practices with project and subcontractor staff:

- The CoolSave program has a disadvantaged worker reporting program that meets CPUC guidance for reporting worker status while maintaining privacy and anonymity. Participation of the workforce (and subcontractors) is voluntary, however, reporting of disadvantage worker status, in aggregate, are required.
- Program staff track and report any changes to disadvantage worker status.
- Metrics reflecting disadvantaged worker status for our staff and subcontractors are reported periodically along with other program KPIs.
- In cases where multiple bids are solicited for project implementation work (HVAC, refrigeration, lighting or otherwise) the terms of bid evaluation will include the same language as PG&E's procurement terms in evaluation of our bids.

11. Additional Information

The CoolSave team will monitor and respond to CPUC regulatory and related requirements and updates impacting the program. The program will comply with current and upcoming PG&E Policies, CPUC regulatory requirements, procedures, protocols processes, program-specific rules and manuals that are published and made publicly available. In addition, members of the CoolSave program team will be participating in an upcoming Site-Specific NMEC Working Group, ensuring the program plan and rules remain up to date with CPUC changes.

Supporting Documents

Below is a list of supporting documents.

1. Program Manual and Program Rules – Attachment 1
2. Program Theory and Program Logic Model
3. Process Flow Chart
4. Incentive Tables, Workpapers, Software Tools
5. Quantitative Program Targets
6. Diagram of Program
7. Evaluation, Measurement & Verification (EM&V) – Attachment 2
8. Normalized Metered Energy Consumption (NMEC) M&V Plan – Attachment 2

Items 2-6 are described below; and the Program Manual and M&V Plan are separate attachments.

1. Program Manuals and Program Rules

The attached Program Manual clarifies the CoolSave program eligibility requirements and rules of the program. The program rules comply with CPUC policies and rules.

2. Program Theory and Program Logic Model

Program Theory

The program theory indicates that a comprehensive approach to the commercial grocery segment through capital and operational investment, commissioning, technical assistance, and demand response will:

- Minimize program hassle for participants through comprehensive technical assistance.
- Improve and optimize controls capabilities.
- Drive persistence of savings through ongoing monitoring.
- Address untapped market potential.
- Make incentives available beyond the existing rebate catalog.
- Increase refrigeration contribution to demand response through technical advising.
- Result in energy savings over the short, mid and long term.
- Increase broader adoption of higher efficiency equipment, leading to market transformation.
- Move California closer to the target of doubling statewide energy efficiency savings in electricity and natural gas end uses by 2030 as set by The Clean Energy and Pollution Reduction Act (California Senate Bill 350).

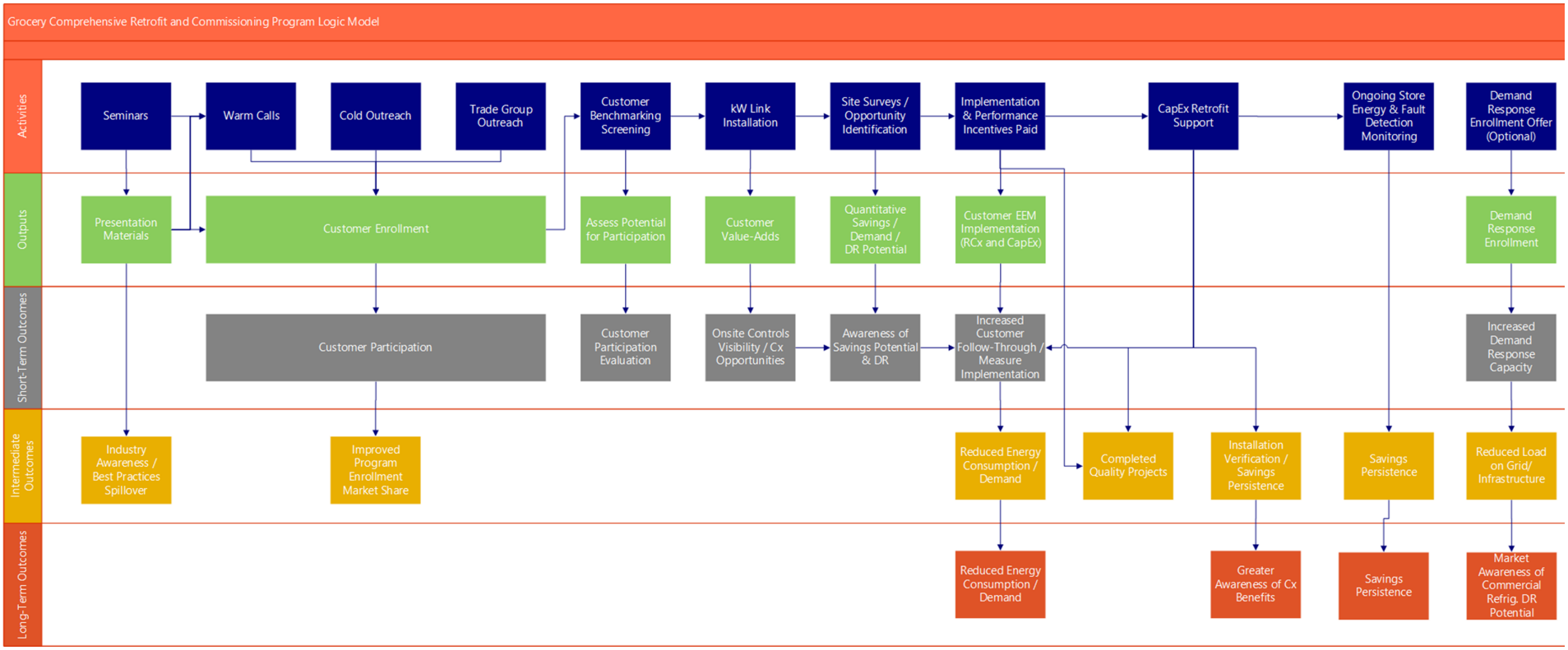

Figure 1: Program Logic Model

Assessing Project Fit

A pilot project with State Bros grocery in 2020 showed that an NMEC approach to comprehensive retrofits can be very effective for medium to large sized grocery stores. The projects that fit the CoolSave program best have high savings potential, high likelihood of implementation, and the building energy use that is predictable enough for NMEC whole building M&V. Specifically, a good project should meet the following criteria:

- Stores larger than 20,000 sf with built-up refrigeration equipment (not self-contained units)
- Engaged customer with energy efficiency priorities and/or goals.
- Steady baseline performance to meet NMEC criteria
- High energy use intensity (EUI)
- High potential energy savings (>10%)
- Customer contact has power to spend money on retrofits (CapEx path)
- Existing controls are underutilized for efficiency purposes (OpEx path)

3. Process Flow Chart

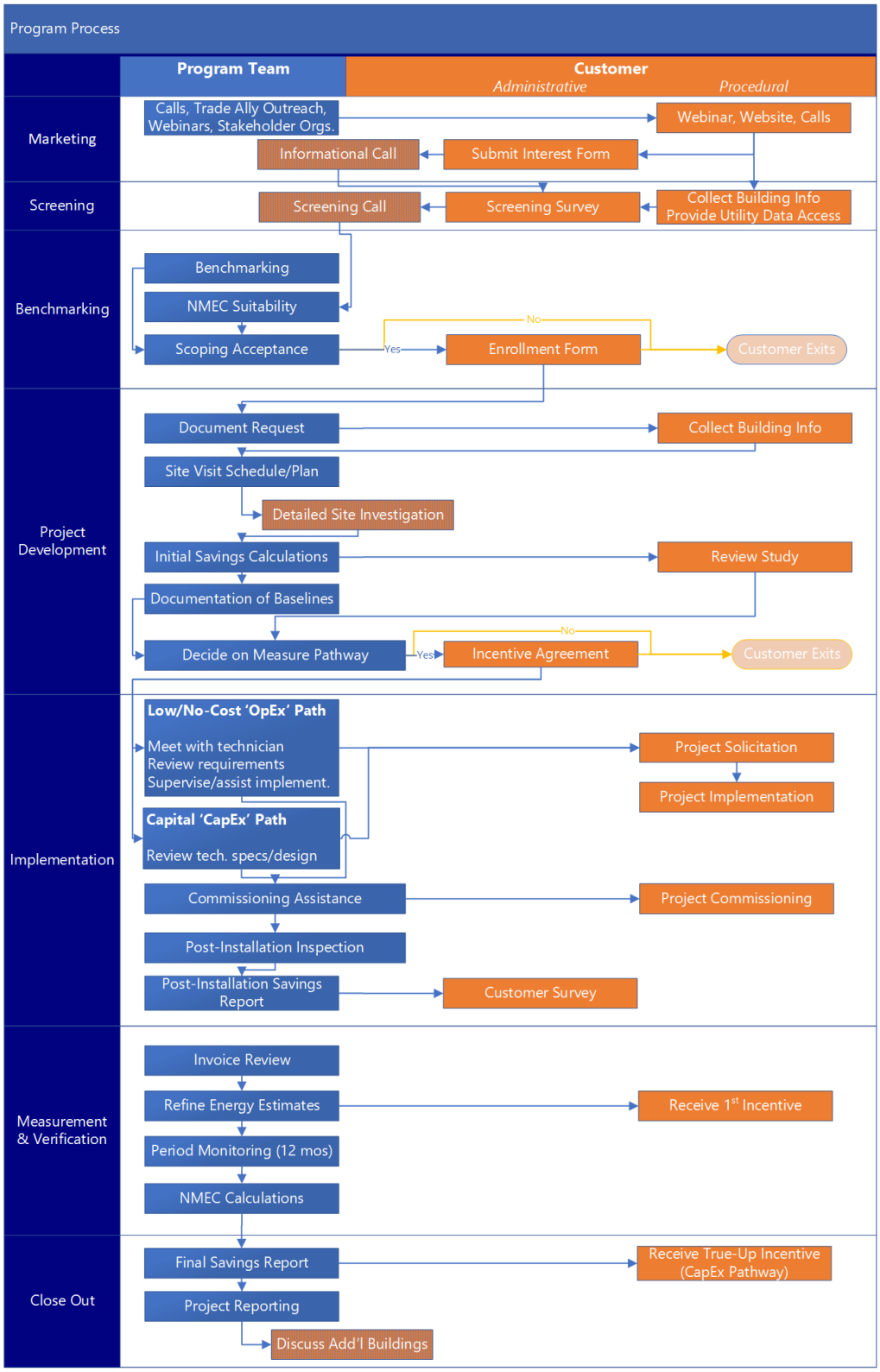

Figure 2: Process Flow Chart

Note on Process Flow Chart: Some sites may have measures that fall in both the OpEx and CapEx paths. In those cases, the project will generally follow the CapEx path; however, if the savings from retro-commissioning are anticipated to be large enough to identify distinctly with M&V, and there is little interactive effects, the implementation of retro-commissioning measures may take place prior to CapEx improvements.

4. Incentive Tables, Workpapers, Software Tools

Table 5: Incentive Summary

Program Path	OpEx Path – Low Cost	CapEx Path - Investment
Services	Retro-commissioning 1-yr Remote Monitoring 1-yr Fault Detection	Project Scoping / Analysis Design Assistance Commissioning 1-yr Remote Monitoring 1-yr Fault Detection
Incentive	Implementation Assistance Incentive: Up to $2,000 to cover labor and materials to support RCx	$0.12 / kWh incentive 60% post install 40% after 1-yr "true up" based on meter-based savings

There are no workpapers associated with this program.

5. Quantitative Program Targets

Table 6: Quantitative Program Targets (Net)

Targets	2021 Program Year 2	2022 Program Year 3	2023 Program Year 4	Total Program Term
Total Sites Served	30	45	15	90
kWh	1,476,863	6,235,643	7,056,123	14,768,629
kW	149	630	713	1,493
Therms	-	-	-	0

6. Diagram of Program

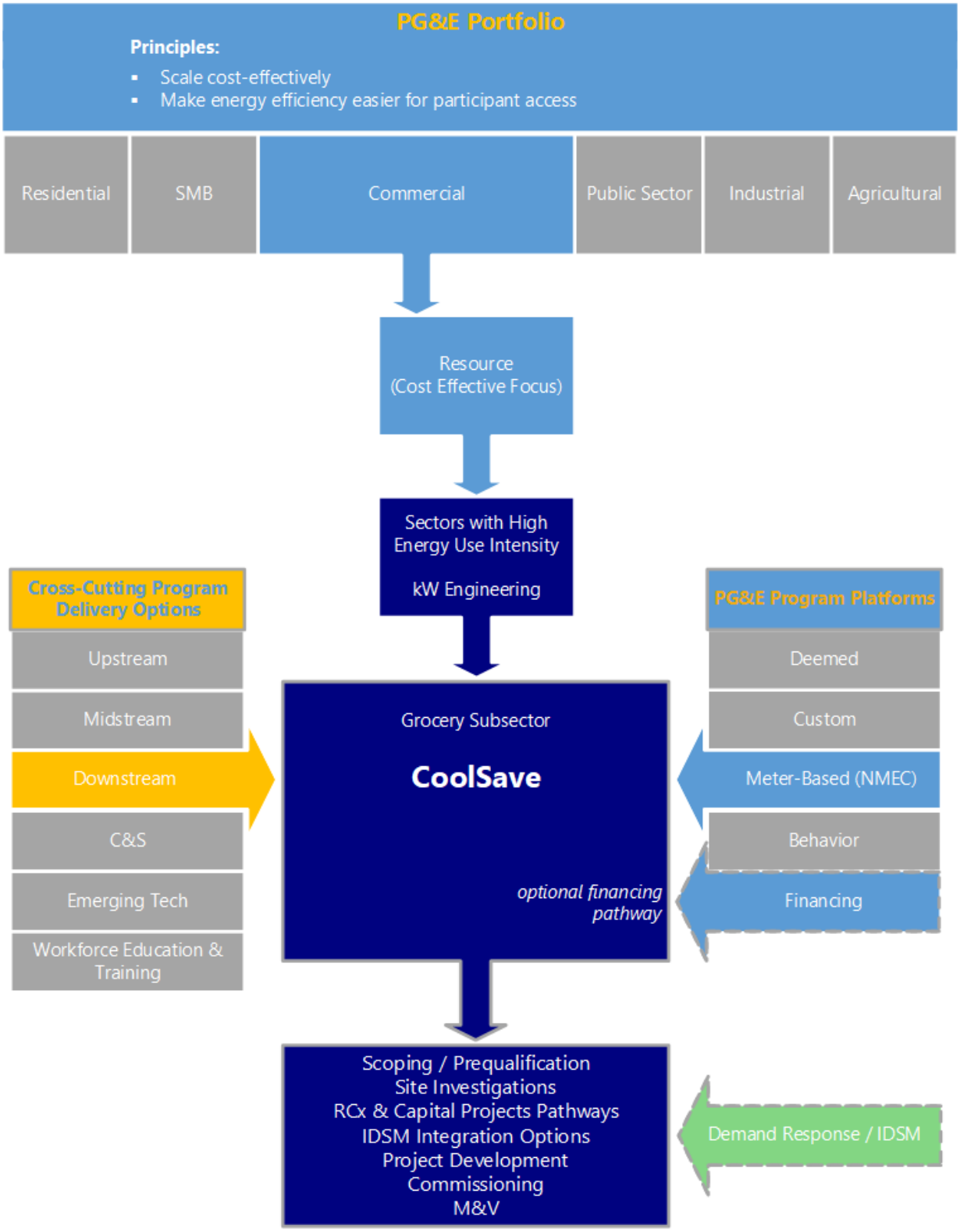

Figure 3: Diagram of Program

7. Evaluation, Measurement & Verification

The attached M&V plan covers M&V requirements and details for all NMEC projects.

8. Normalized Metered Energy Consumption

The attached M&V Plan describes the program-level M&V strategy for this site-level NMEC program.