



**AGRICULTURAL AND INDUSTRIAL ENERGY EFFICIENCY PROGRAM
PROGRAM IMPLEMENTATION PLAN**

**Agricultural and Industrial Resource (AIR) Program
MCE10 & MCE11**

May 15, 2018

Version 1.0

Contents

Program Overview	3
1. Program and/or Sub-Program Name	3
2. Sub-Program ID number	3
3. Sub-program Budget Table	3
4. Projected Program Net Impacts	4
5. Sub-Program Cost Effectiveness (TRC).....	4
6. Sub-Program Cost Effectiveness (PAC).....	4
7. Type of Sub-Program Implementer (Core, third party or Partnership)	4
8. Market Sector (including multi-family, low income, etc)	4
9. Sub-program Type (Non-resource, resource acquisition, market transformation).....	4
10. Intervention Strategies (Upstream, downstream, midstream, direct install, non-resource, finance, etc)	4
Implementation Plan Narrative	5
1. Program Description	5
2. Program Delivery and Customer Services	6
3. Program Design and Best Practices	8
4. EM&V	12
5. Pilots.....	13
6. Additional information	13
Supporting Documents	14
1. Program Manuals and Program Rules	14
2. Program Logic Model.....	14
3. Process Flow chart	14
4. Incentive Tables, Workpapers, Software Tools	16
5. Quantitative Program Targets	18
6. Diagram of Program.....	19
7. Program Modifications from the California SEM Design Guide	19

Program Budget and Savings Information

As authorized in D.15-10-028, MCE is launching a program to service industrial and agricultural customers within its service territory¹. The programs' budget and savings information are summarized in the sections below.

1. PROGRAM AND/OR SUB-PROGRAM NAME

MCE Agricultural and Industrial Resource (AIR) Program

2. SUB-PROGRAM ID NUMBER

MCE10 (Industrial) and MCE11 (Agricultural)

3. SUB-PROGRAM BUDGET TABLE

MCE10 - Industrial	2019	2020*	2021*	Total
Admin	\$31,227.37	\$58,056.22	\$58,056.22	\$147,339.81
Marketing and Outreach	\$13,291.14	\$24,710.16	\$24,710.16	\$62,711.46
Direct Implementation - Non-Incentive (DINI)	\$339,512.76	\$631,203.53	\$631,203.53	\$1,601,919.82
Incentives	\$306,391.39	\$569,626.09	\$569,626.09	\$1,445,643.57
Total	\$690,422.66	\$1,283,596	\$1,283,596	\$3,257,614.66

MCE11- Agricultural	2019	2020*	2021*	Total
Admin	\$23,430.86	\$38,312.96	\$38,312.96	\$100,056.78
Marketing and Outreach	\$9,972.75	\$16,306.94	\$16,306.94	\$42,586.63
Direct Implementation - Non-Incentive (DINI)	\$353,357.97	\$577,793.25	\$577,793.25	\$1,508,944.47
Incentives	\$379,687.42	\$620,845.84	\$620,845.84	\$1,621,379.10
Total	\$766,449	\$1,253,259	\$1,253,259	\$3,272,967

*2020 and 2021 Program Year budgets will be finalized in each Annual Budget Advice Letter

¹ MCE service territory includes all of Marin County and Napa County, unincorporated Contra Costa County and Solano County, and the cities of Benicia, Concord, Danville, El Cerrito, Lafayette, Martinez, Moraga, Oakley, Pinole, Pittsburg, Richmond, San Pablo, San Ramon, and Walnut Creek

4. PROJECTED PROGRAM NET IMPACTS

Program Goals	2019 Program Year		2020 Program Year*		2021 Program Year*	
	net kWh	net therms	net kWh	net therms	net kWh	net therms
MCE10-Industrial	556,588	71,153	1,179,161	110,000	1,179,161	110,000
MCE11-Agricultural	799,656	30,937	709,938	10,000	709,938	10,000

*2020 and 2021 Program Year goals will be finalized in each Annual Budget Advice Letter

5. SUB-PROGRAM COST EFFECTIVENESS (TRC)

Program ID Number	2019 TRC
MCE10 - Industrial	1.60
MCE11 - Agricultural	1.52

6. SUB-PROGRAM COST EFFECTIVENESS (PAC)

Program ID Number	2019 PAC
MCE10 - Industrial	2.05
MCE11 - Agricultural	1.77

7. TYPE OF SUB-PROGRAM IMPLEMENTER (CORE, THIRD PARTY OR PARTNERSHIP)

Third Party

8. MARKET SECTOR (INCLUDING MULTI-FAMILY, LOW INCOME, ETC)

Agricultural and Industrial

9. SUB-PROGRAM TYPE (NON-RESOURCE, RESOURCE ACQUISITION, MARKET TRANSFORMATION)

Resource acquisition

10. INTERVENTION STRATEGIES (UPSTREAM, DOWNSTREAM, MIDSTREAM, DIRECT INSTALL, NON-RESOURCE, FINANCE, ETC)

Downstream

Implementation Plan Narrative

1. PROGRAM DESCRIPTION: Describe the program, its rationale and objectives.

The MCE Agricultural and Industrial Resource Program (The AIR Program, or the Program) will provide a comprehensive approach based on individual customer needs and opportunities through multiple participation pathways, including prescriptive, calculated, Strategic Energy Management (SEM) and meter-based strategies. The Program will act as a single point of contact (SPOC) for these customer segments, connecting and leveraging available resources and funding sources pertaining to energy efficiency, renewable energy, and sustainability goals and needs.

The Program is designed to provide individualized services to agricultural and industrial customers to identify energy efficiency opportunities, develop and evaluate implementation options, and provide incentives in the form of technical assistance, money-back rebates and financing. With a single customer-facing program for both industrial and agricultural customers, the Program is able to leverage the same platform, streamline the customer offer and experience, reduce administrative costs and improve cost effectiveness. With one program umbrella the Program is able to serve a customer's entire value chain through one process regardless of the customer segment definition or participation pathway.

The AIR Program is designed to be comprehensive, delivering reliable and persistent electric and gas savings for customers within MCE's service area. Both agricultural and industrial customers have some of the highest energy use and costs, yet are often focused on production needs, quality, safety, and standard maintenance rather than energy efficiency. These customers require specialized support to bring savings opportunities to fruition, and to drive confidence that the recommendations they receive are appropriate, accurate, and capable of delivering expected savings and incentives. The MCE AIR Program will respond directly to this need by connecting agricultural and industrial customers of all sizes and business types in MCE's service territory with the information, and support they need to successfully pursue energy efficiency projects – while unlocking additional savings through currently untapped channels, such as smaller, independently owned facilities or growers requiring higher-touch engagement.

The program will utilize Deemed and Customized Retrofit platforms as defined by the Energy Efficiency Policy Manual, establish cohorts for Strategic Energy Management (SEM), and eventually introduce projects leveraging Normalized Metered Energy Consumption (NMEC). Customers will benefit from a comprehensive approach to energy efficiency, MCE's strong customer relationships and community presence, ongoing communication, innovative methods, data-driven outreach, and rigorous technical review of projects. Combined, the Program will provide multiple pathways for customers to develop and realize energy efficiency goals. Annual energy reduction goals are to be pursued and met each year, with an increasing number of projects to originate from local market actors over time as they recognize the value of energy efficiency and gain an increasing understanding of program opportunities and delivery methods.

The comprehensive program was designed and will be implemented with the following objectives:

- Raise awareness about energy use and associated economic and environmental impacts in the agricultural and industrial sectors within MCE's service area
- Provide customers with a single point of contact for their energy journey, simplifying otherwise complex and potentially competing project interests, while also connecting them to other available local and regional offerings.
- Ensure program impacts are verifiable and defensible and that incentive payments align with realized savings where feasible.
- Achieve three-year energy reductions goals and achieve program cost-effectiveness targets.

2. PROGRAM DELIVERY AND CUSTOMER SERVICES: Describe how the energy efficiency program will deliver savings (upstream, downstream, direct install, etc.); how it will reach customers and the services that the program will provide. Describe all services and tools that are provided.

The Program will deliver downstream energy savings through the following energy efficiency calculation platforms:

1. Deemed
2. Custom calculated
3. Meter-based

Customers will be identified and funneled into the appropriate platform based on their individual needs, characteristics of their project, savings opportunity and efficiency goals.

Customer Outreach:

The Program will leverage multiple customer outreach strategies to drive awareness of energy efficiency offerings and engagement with the Program. This includes a data-driven analysis of savings potential and past participation, paired with qualitative information on the customer decision making process and market pressures to determine the best candidates for outreach. Based on this analysis the AIR Program will reach out to customers directly with marketing messages and direct account management. Additionally, it will work with industry organizations and vendors to drive awareness of the offering.

Direct customer outreach will be the key tactic to drive customer participation. MCE is uniquely positioned to support targeted customer outreach, owing to strong relationships with energy-savvy customers, community organizations supporting sustainability activities, and an account management team that is well versed in energy efficiency programs and opportunities. The Programs' outreach and account management team will focus on face-to-face meetings, email and phone calls to create and sustain relationships and drive market transformation. The strategies outlined below will be continuously built upon by the outreach team as the account managers continue to engage deeper in the market. Regular review should be conducted of these resources to assess relevance, and to make sure there are adequate resources to drive the desired results.

Lead generation will come from a variety of sources including:

- Direct to customer marketing.
- Earned media and collaborations with other sustainability-based organizations and offerings.
- AIR and MCE account managers.
- Manufacturers, distributors and vendors serving these segments.
- Industry and trade organizations.

Core to MCE's approach in supporting the customer journey in energy efficiency is the single point of contact concept. The Program will be well-informed of all energy efficiency programs available to a customer. In addition, these staff members will be able to speak to other non-resource programs and opportunities that support the sustainability goals of customers in these sectors. This will help eliminate customer confusion about multiple program offerings and will coordinate with existing statewide and local government programs to avoid overlapping customer outreach activities.

Prospective customers will be contacted and introduced to the program at a high level to gauge their interest and business needs. Collateral which is specific to the customer need will be used to educate the customer about the benefits of participation and help them identify best-fit solutions for their business. The account managers will

ensure that customers are supported as they move through the program. The Program will focus on customer satisfaction as repeat participation and word-of-mouth are key program savings strategies.

Support Tactics:

Other marketing tactics that will support customer lead generation and account management include:

- **Collateral:** Educational materials that convey the energy and non-energy benefits associated with custom projects and other offerings. These materials will educate customers about the long-term benefits of energy efficiency, available incentives, and other programs that may help. Program collateral will include:
 - Program overview
 - Industry specific info sheets
 - Measure specific info sheets
- **Case Studies:** Descriptions of specific projects that have been implemented by customers in California will be a key tool for account managers to use in encouraging customers to participate. Case studies will be developed on a wide variety of measures and industry types in order to equip the outreach team with specific examples of completed projects to show potential customers.
- **Web Content:** The Program will use the MCE website to promote the Program and provide valuable information to potential customers and other stakeholders. Initial content includes incentive details, FAQs, and high-level program information and will be supplemented by case studies and other collateral as developed. Customers visiting the website will be able to access the customer portal as well as contact information to reach Account Management.
- **Trade Associations and Community Organizations:** Trade associations are trusted partners in the business community and provide another avenue for reaching target sectors. The Program will reach out to local trade associations, chambers of commerce, and business leader groups to raise program awareness.

Services Provided:

- **Single Point of Contact** – Provide personalized attention, follow-through, and assistance in identifying solutions that meet customers' needs, budget, and levels of readiness for change.
- **Facility Audits** – Targeted facility audit to provide a peripheral view of the facility and operating systems to assist in development of a list of potential measures and opportunities.
- **Technical Assistance** – The Program will offer technical assistance to customers to help them understand the full scope of available resource conservation options and guide customers through the process from project identification to completion.
- **Incentives** – Financial incentives provided to off-set costs of energy efficiency measures.
- **Strategic Energy Management** – A holistic, whole facility approach that uses NMEC and a dynamic baseline model to determine energy savings from all program activities at the facility including maintenance and operation and retro-commissioning projects. The SEM Program requires a multi-year customer commitment to participation in multiple cohort-type training workshops, individual or cohort energy analysis site and Measurement and Verification (M&V) activities based on information and characteristics of the facility's specific processes.

3. PROGRAM DESIGN AND BEST PRACTICES: Describe how the program meets the market barriers in the relevant market sector/end use. Describe why the program approach constitutes “best practices” or reflects “lessons learned”. Provide references where available.

Program Design:

The program is designed to meet the needs of a diverse range of agricultural and industrial customers, with a flexible incentive structure and multi-track engagement approach that guides each participant to the path that’s right for them. The Program will also use this process to identify which program pathway might be the best fit for each customer, including high-potential candidates for the SEM track. The Program will:

- Combine incentive and financing resources to reduce costs, align with benefits, and reward savings.
- Carefully consider customer journeys and value propositions, tailored to support varied customer decision networks, make participating simple and attractive.
- Form meaningful links between energy savings and internal priorities, such as increased production or employee retention.
- Reduce complications associated with vetting and approving new products for incentives through expert engineering analysis of market opportunity and a strong regulatory presence and relationships.

The Program will tailor the customer experience based on the individual needs and goals of each customer: technical support through industry specific engineers, customizable tools, partner services, well-trained trade ally network, and best practices informed by insights from other programs targeting similar customer segments. The close engagement with each customer will foster the ability to guide them towards the participation track best suited to their organizational structure and goals – from more straightforward deemed measures to enrolling in an SEM cohort.

Following the initial customer engagement, The Program will match them with a dedicated energy advisor who will provide ongoing support, guidance, and follow-up communication throughout their participation experience. Additionally, this initial engagement will be used to schedule and perform a Facility Assessment tailored to the customer’s size and potential, and determine the track (custom, NMEC, or deemed incentives, as well as SEM cohort participation) best suited to identified project opportunities.

Understanding that the local workforce represents a key customer touchpoint, The Program will provide trade allies with the strong, comprehensive tools and training they need to help customers navigate the decision-making process and drive project adoption. The Program will leverage this network to utilize established best practices in program ally outreach and engagement to convey the benefits of relevant energy-efficient measures, best practice installation guidelines, and MCE-specific requirements.

Market Barriers:

While these markets, and their sub-markets, are different in many ways, agricultural and industrial customers face many similar challenges in participating in energy efficiency programs. Many have challenges understanding how best to evaluate and implement cost-effective energy efficiency improvements due to limited bandwidth and/or hesitation to adopt new technologies. In addition, customers in these segments have unique operations and variable conditions driving complexities in program ease of use, business priorities, opportunity identification, and value quantification. Due to competing priorities for resources within a customer’s business, it is a challenge to

gain the attention of key decision-makers without having a succinct and proactive energy efficiency strategy that will bring financial and operational benefits to a customer immediately and in the years to come. In addition to resource limitations and vague understanding of energy efficiency opportunities, there are often only limited windows of opportunity to install measures given the seasonal constraints of crop production and planning cycles typical of agricultural and industrial operations. Improving the efficiency of the equipment and processes driving their business is often not the priority of the facility staff. The unique needs of some agricultural customers, particularly crop producers and smaller dairies/wineries, will necessitate a deeper level of support and engagement to ensure successful project completion.

To overcome these barriers, agricultural and industrial customers need a multifaceted approach – not solely an incentive or rebate offer – tailored to meet their specific business requirements. This program design will introduce a tiered approach to program participation so the relationship can begin at the level most appropriate for the individual customer given their priorities, energy savings opportunities, and internal decision-making process and timing. Table 1 below details how The Program will minimize the barriers of participation.

Table 1. Market Barrier, Risks, and Risk Management Strategies

Market Barrier	Risk	Risk Management Strategies
Customer or building owner does not prioritize energy efficiency	<ul style="list-style-type: none"> Decision-makers choose to install cheaper, less efficient equipment with shorter payback/IRR, resulting in lower savings Owners are not informed about how their facility uses energy Existing debt may limit funds to purchase new efficient equipment Customers place priority on fluctuating commodity prices 	<ul style="list-style-type: none"> MCE offers incentives and programs to reduce payback and IRR for business owners. The Program offers planning assistance to enhance energy savings. The Program educates customers about the long-term benefits of energy efficiency, available incentives, and other programs that may help.
Customers typically replace equipment only upon failure	<ul style="list-style-type: none"> Customers see no need to replace functioning equipment Customers are not informed about the most efficient equipment available when the need to replace it is immediate. Some efficient equipment may have a longer delivery time that would affect customer operations 	<ul style="list-style-type: none"> The Program educates trade allies and customers about available energy efficient choices before equipment fails and encourages businesses to plan for equipment replacement.
Due to engineering and technical skills required, project lead, installation, and verification times can conflict with program dates and deadlines	<ul style="list-style-type: none"> Program missing out on significant energy savings toward meeting goals 	<ul style="list-style-type: none"> The Program will work closely with participants and trade allies to track project status and provide support to keep projects moving forward.
Trade allies have difficulty identifying custom projects due to lack of knowledge, and most identified projects are past the	<ul style="list-style-type: none"> Lost opportunity to identify projects early in the replacement process to be better able to incorporate energy efficient upgrades into the work 	<ul style="list-style-type: none"> The Program educates trade allies on how to identify potential project opportunities.

design phase, which is too late to affect efficiency choices		
--	--	--

Best Practices:

The Program, administered by MCE and implemented by CLEARResult will promote a comprehensive approach to energy efficiency projects, available to qualifying customers through a range of outreach and marketing tactics. The program will work directly with customers and trade allies to help identify, develop, and implement qualifying projects.

Components of implementation, include:

- Engaging community partners across MCE's service area to provide maximum customer value and increase the rate of customer participation,
- Educating customers on energy efficiency opportunities and directing them to the program through direct interaction, and marketing activities and materials,
- Utilizing technical support to complete targeted facility assessments to aid in identification of potential opportunities,
- Educating and developing an effective network of contractors, trade allies, and distributors to encourage energy efficient installation decisions among their customers,
- Having customers complete on-line portal, program applications, or working with trade allies to complete on-line portal applications,
- Reviewing pending and completed project documentation to verify the applicant is an eligible customer operating within the MCE service territory, and the completed project and installed equipment meets program eligibility requirements,
- For applicable project types, working with customers to confirm project pre-approval via email, before contracting for, ordering or installing energy efficiency equipment and/or services,
- Processing completed applications and issuing rebates for qualified projects/equipment, and
- Verifying completed equipment installation for a sample of participants to confirm program integrity as a part of M&V efforts.

Strategic Energy Management:

SEM will play a key part in the MCE AIR Program and will help to address many of the market barriers mentioned above. SEM programs have proven to be a successful approach to significantly reducing energy consumption in the industrial sector.² Because establishing an SEM approach in a facility requires a broad set of skills and a significant commitment of staff time, external technical assistance is often critical for assisting the process. Energy efficiency programs across the US have demonstrated that they can be a determining factor in the implementation of SEM by providing targeted assistance.³

^{2,3} Burgess, J et al. 2014, *Industrial Strategic Energy Management Initiative*. Consortium for Energy Efficiency: <https://library.cee1.org/content/cee-industrial-strategic-energy-management-initiative/>

Strategic Energy Management (SEM) is a subprogram of The Program that will be offered in a cohort style format and will have a subset of objectives in addition to the overall program objectives. The primary objectives over long-term engagement are to help SEM participants:

1. Implement energy efficiency projects and save energy, with a focus on Behavioral, Retro-Commissioning and Operational.
2. Establish a robust, continuous Energy Management System (EnMS) at the facility that impacts company culture in a positive way.
3. Quantify and report facility-wide energy performance.
4. Getting peers to talk to one another - participants learn more by hearing from, and talking to, their peers.
5. Achieving a balance between saving energy and building EnMS practices.
6. Introduce Agricultural and Industrial customers to additional clean energy opportunities in water efficiency, demand response, renewable energy, project financing and carbon emissions mitigation.

To achieve energy savings goals, the program uses a cohort format for training workshops and a mix of individual and cohort site activities. Per program participant's request, circumstance, or energy savings opportunity, individual coaching is available including regular check-in meetings, maintaining regular contact, and other communication options.

Site activities include conducting an energy opportunities Treasure Hunt and recording findings in an Opportunity Register. The energy coach and technical staff help identify and provide technical project management support for implementation of behavioral, retro-commissioning and operational, as well as capital, custom and deemed energy efficiency projects

During the first year, participants begin establishing Energy Management System practices and identify, implement, and track organizational and operational changes that will help save energy at their facilities. During the second year, participants solidify and advance those practices. In addition, participants' efforts in the early years are primarily focused on reducing energy waste by increasing operational efficiencies and implementing no- and low-cost solutions through operations and measurement (O&M) actions.

SEM Services Provided:

Once signed up for the program, initial engagement with customers will include:

- Individual kick-off meeting to lay out clear program expectations
- Cohort or individual facility workshops with clearly defined learning objectives and well facilitated peer-to-peer learning that include strategies on:
 - Developing SEM
 - Identifying and Implementing Energy Savings Projects (focused on O&M and RcX)
 - Employee Engagement
 - Persistence of Savings
 - Tracking Energy Performance
 - Designing and Implementing an Energy Management Information System
- On-site "Energy Treasure Hunt" to guide and introduce concepts to facilities that help them identify, track, prioritize, and estimate savings from O&M, retro-commissioning, capital projects, and other opportunities.
- On-site and remote support for: goal development, employee engagement, energy map development, energy data collection and data logging, project savings persistence strategies, as well as annual updates to key activities.

- Development of an energy savings regression model and annual updates to meet the requirements of a separate M&V guide.
- Implementation of an “Energy Management System Assessment” to assess progress on customer EnMS and plan future improvements.
- Identify, scope and provide technical support for project implementation
- Where appropriate, supporting the customer in defining and implementing an “Energy Management Information System” to better track, report, and make decisions on energy data.

Detailed in Section 7 of the Supporting Documents below are more details on how the Program will further optimize the SEM offering to best serve the customers in MCE’s service territory.

4. EM&V: Describe any process evaluation or other evaluation efforts that the Program Administrator (PA) will undertake. Identify the evaluation needs that the PA must build into the program. These might include:

MCE is proposing to work with CPUC Energy Division to develop a comprehensive EM&V Plan after the program implementation plans are filed. MCE will follow the guidelines set forth in the Statewide Customized Offering Procedures, and coordinate with the Energy Division to approve the EM&V Plan to be in accordance with program objectives. Development of these plans will occur after final program design is approved by the CPUC and after program implementation has begun, since the plans need to be based on described program design and implementation barriers.

CLEAResult will review program applications for measure assumptions (e.g., custom savings calculations, measure life, incremental cost, etc.) to determine their validity in conjunction with program requirements, to ensure energy savings claims meet applicable standards. Section 8 of the Program Manual describes the QA/QC process that is embedded within the program design.

a. Data collection strategies embedded in the design of the program or intervention to ensure ease of reporting and near-term feedback.

The Program will collect data throughout the customer’s engagement that can be used to both inform on-going program performance and adjustments as well as meet the regulatory reporting needs. This data collection will be done in a way that minimizes the burden on the customer but ensure adequate information is available to document energy savings achievement and inform future evaluations. This includes information on the customer, the site, equipment to be installed, and technical details such as runtime/operating schedule, equipment loading, part load efficiency, and calculations and assumptions used to derive the savings estimate.

b. Internal performance analysis during deployment

The Program will be tracking numerous internal performance metrics to gauge success and course correct as necessary. This will include efficacy of marketing and outreach, customer satisfaction, project timelines and accuracy of calculations.

c. Performance metrics

Performance Metrics:

As defined in the Business Plan Decision, the Program will track and report on the following:

Industrial:

- First year annualized and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)

- Greenhouse gasses (MT CO₂eq) Net kWh savings, reported on an annual basis
- Percent of population relative to eligible population for small, medium, and large customers
- Levelized cost of energy efficiency per kWh, therm, and kW (use both TRC and PAC)
- Reduction in consumption

Agricultural:

- First year annualized and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)
- Greenhouse gasses (MT CO₂eq) Net kWh savings, reported on an annual basis
- Percent of population relative to eligible population for small, medium, and large customers
- Levelized cost of energy efficiency per kWh, therm, and kW (use both TRC and PAC)

5. PILOTS: Please describe any pilot projects that are part of this program, and explain the innovative characteristics to these pilots. The inclusion of this description should not replace the Ideation Process requirements currently agreed by Commission staff and IOUs. This process is still undergoing refinements and will be further discussed as part of Phase III of this proceeding

Not applicable.

6. ADDITIONAL INFORMATION: Include here additional information as required by Commission decision or ruling (As applicable. Indicate decision or ruling and page numbers)

Workforce Standards

As required in Decision 18-10-008, the Program will require the following:

- All HVAC projects receiving an incentive of \$3,000 will require that all workers participating in installation, modification, and maintenance of HVAC measures on projects that meet the criteria outlined in this decision to meet one of the following criteria: Completed an accredited HVAC apprenticeship.
 - Be enrolled in an 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 Licensing Board.
 - All of the above requirements apply to all of the individuals that perform the installation work, not to the contracting firm itself.
- All lighting controls projects receiving an incentive of \$2,000 will require that California Lighting Controls Training Program (CALCTP) certification for technicians installing lighting controls projects.

In order to support compliance with these requirements, the AIR Program will perform outreach to vendors serving agricultural and industrial customers in MCE's service territory to promote these standards. It will help customers understand the value of these expertise and assist them in finding contractors that meet the specifications.

Supporting Documents

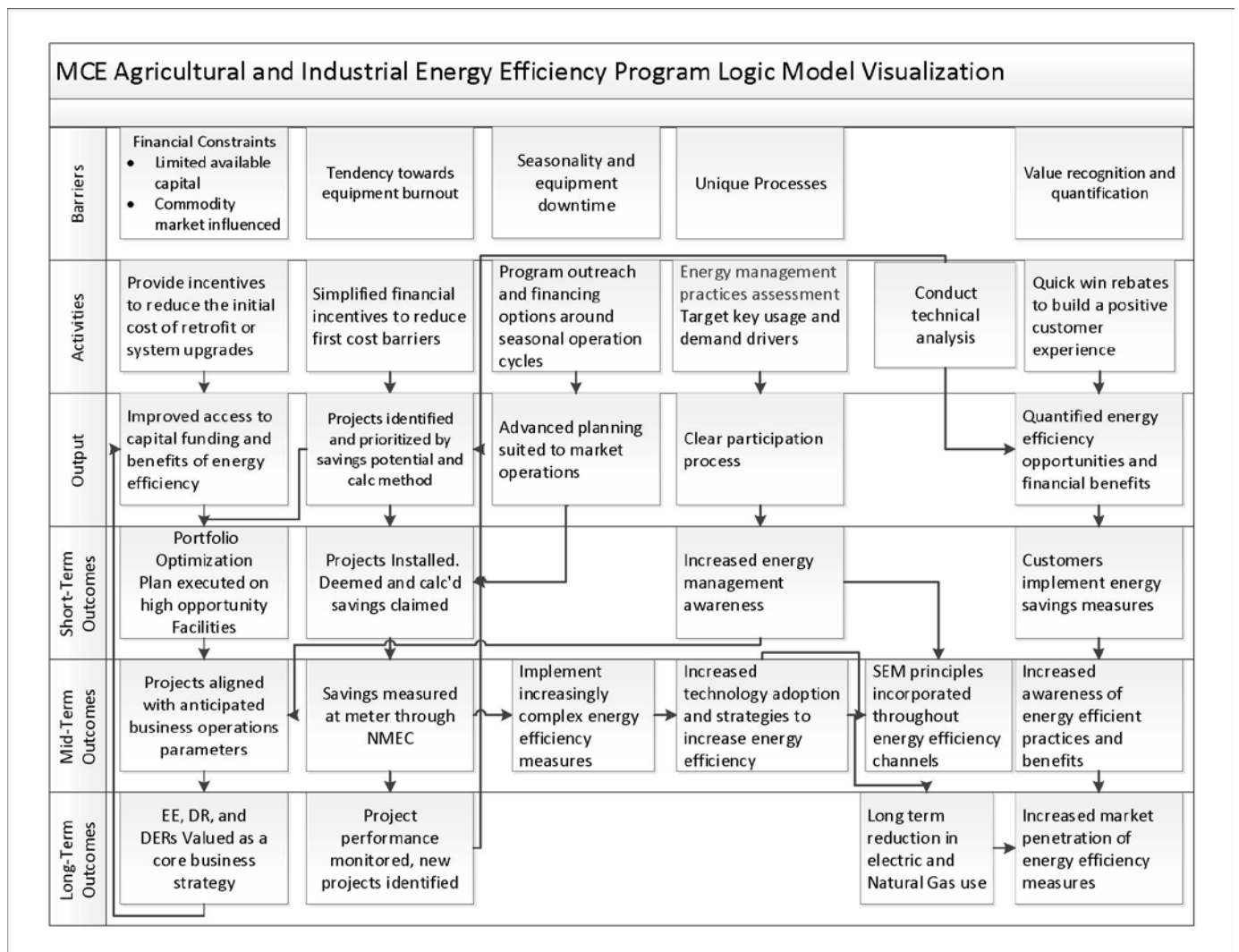
Attach the following documents in Word:

1. PROGRAM MANUALS AND PROGRAM RULES

See attachment

2. PROGRAM LOGIC MODEL

Model should visually explain underlying theory supporting the sub-program intervention approach, referring as needed to the relevant literature (e.g., past evaluations, best practices documents, journal articles, books, etc.).



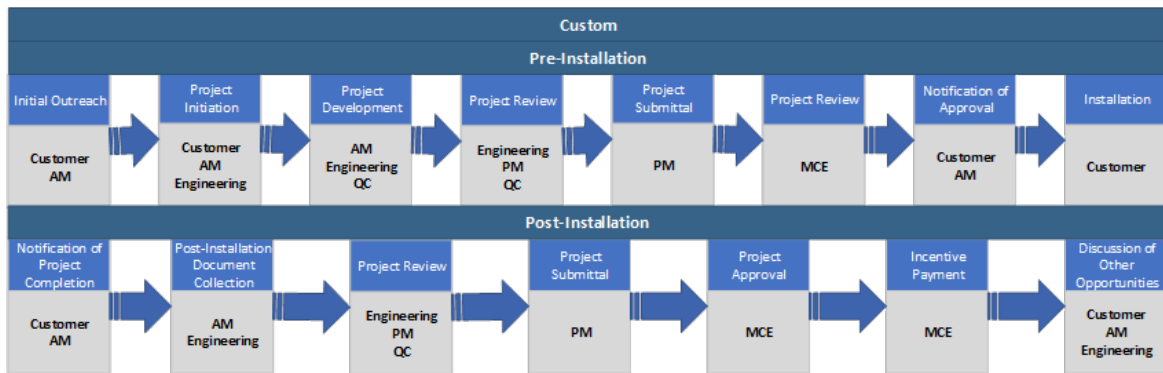
3. PROCESS FLOW CHART

Provide a sub-program process flow chart that describes the administrative and procedural components of the sub-program. For example, the flow chart might describe a customer’s submittal of an application,

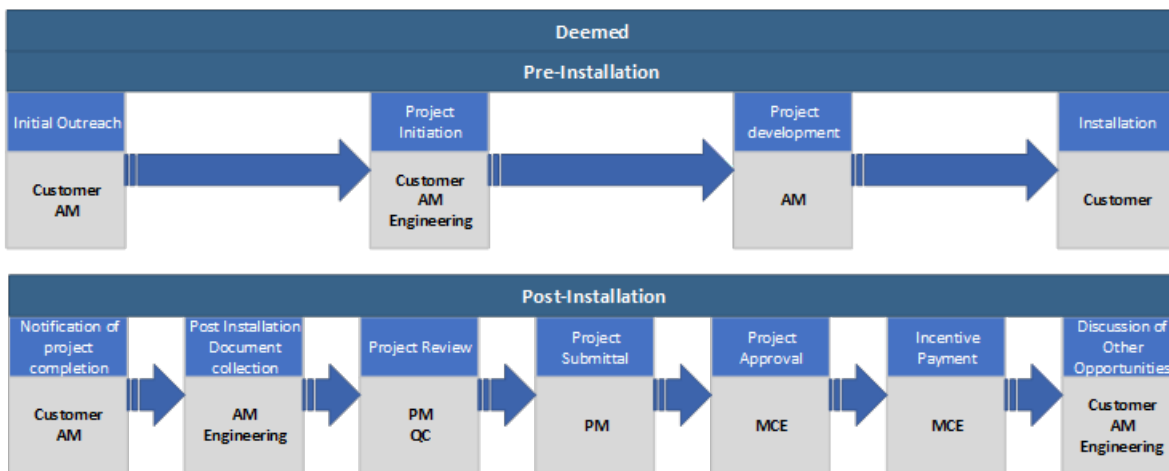
the screening of the application, the approval/disapproval of an application, verification of purchase or installation, the processing and payment of incentives, and any quality control activities.

All potential incentive platforms start with customer engagement and explanation of the program and identification of potential sustainability projects. The single point of contact will guide customers through all relevant paths. The process flow for the four platforms (Custom, Deemed, NMEC, and SEM) included in The Program are detailed below.

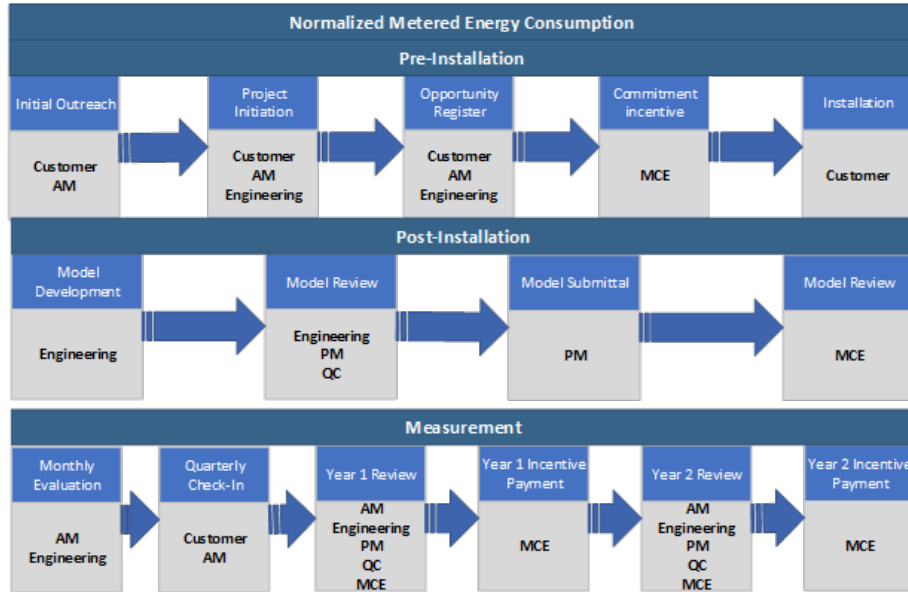
Custom:



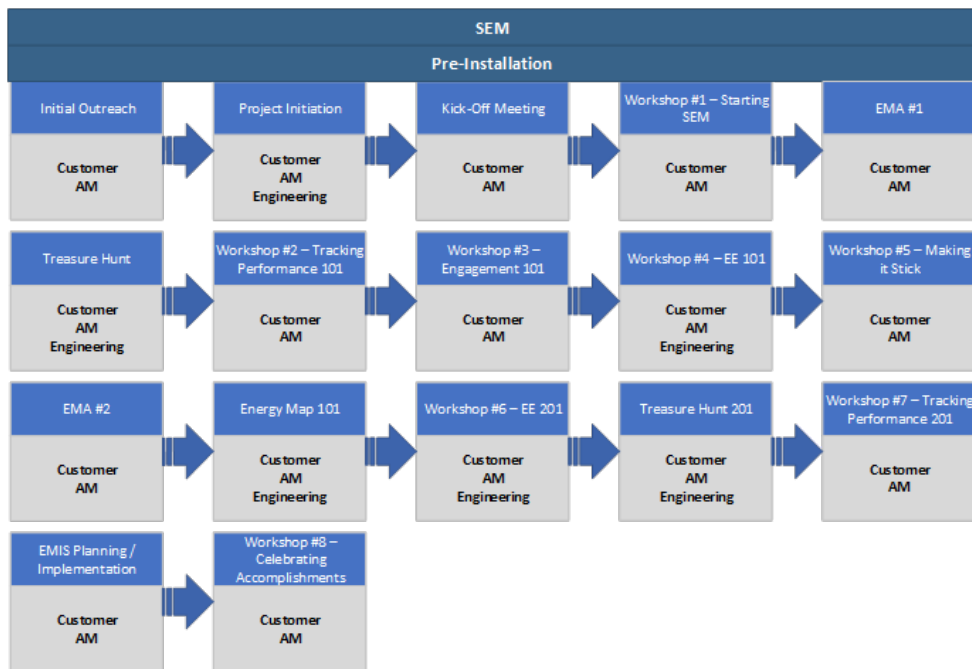
Deemed:



NMEC:



SEM:



4. INCENTIVE TABLES, WORKPAPERS, SOFTWARE TOOLS

(Can incentives be drawn out of the E3s?) Provide a summary table of measures and incentive levels, along with links to the associated workpapers. Templates are available at <http://eestats.cpsc.ca.gov/StandardTables/GuidanceDocument.aspx>

Custom and NMEC:

Financial incentives for custom and NMEC projects will be calculated for eligible projects and are calculated based on the delivery and measure type with an additional early adoption bonus of 20% for customer completing project within the first calendar year of the program. The incentive calculation method is supported by the following table:

Incentive Rates	\$/kWh	\$/therm
Targeted Measure	\$0.20	\$1.50
Standard Measure	\$0.15	\$1.50
Early Adopter Multiplier	20%	20%

Incentive levels have been determined based on the expected market potential for cost effective measures. The increased incentive amount of the programs "Targeted" measures is designed to encourage the penetration of the most cost-effective measures as established by the Total Resource Costs Test. The incentive levels prescribed for SEM participants has been set such that The Program is consistent with the other Program Administrators. An Early Adopter bonus is additionally proposed to encourage new program participants to complete projects by December 31, 2019. The bonus is designed to reward eligible customers for the increased risk perceived by a new energy efficiency market program. While the Program's intent is to maintain consistent incentive rates throughout the duration of the program, incentive rates are subject to change at any time based on budget availability for new participants.

Measure Platform	Payment Timeline
Custom	100% of the incentive will be paid upon project completion and verification of energy savings
Deemed	100% of the incentive will be paid upon project completion and verification of energy savings
NMEC	20% of the Year 1 estimated incentive will be paid upon full execution of the NMEC Enrollment Agreement
	100% of the Year 1 incentive minus the progress payment will be paid upon MCE approval of Year 1 savings model
	100% of the Year 2 incentive will be paid upon MCE approval of Year 2 savings model

Deemed:

Financial incentives for Deemed projects based on or prescribed energy savings for eligible projects and are calculated based on the delivery and measure type as defined by the list of eligible deemed measures with prescriptive rebates per unit installed.

SEM:

Customer incentive payments will be of two kinds:

1. **Milestone incentive payments:** Milestone incentives will be paid to customers based on progress made in the program, primarily for meeting deadlines for providing energy and relevant variable data.
2. **Performance incentive payments:** Performance incentives will be paid to customers based on energy savings calculated through the energy consumption adjustment model.

Milestone incentives are paid throughout the program, based on the customer's ability to meet deadlines and criteria. There are 5 milestones throughout the two-year engagement period. Payment for meeting each milestone will be:

Milestone	Quantity	Rate
Initial: Energy and Relevant variable Data and Workshop Attendance	1 per participant	\$2,000 per participant
Subsequent: Updated Data and Opportunity Register	4 per participant	\$1,000 per participant

Performance Based Payments. These payments involve the total Program energy savings and peak demand reduction goals for the Program's BRO, customized retrofit projects and various activities and tasks associated with SEM implementation. MCE will pay for actual savings resulting from Projects, not forecasted. For custom retrofit projects incentives will be paid on a \$/kWh, \$/therm, and task/activity basis and does not include Customer Incentive and Rebates. BRO measure savings payments will be paid twice throughout the two-year engagement period and custom measure savings will be paid throughout the program at the time of project completion. Payment for each type of savings will be:

Category	\$/ kWh	\$/ Therm
BRO Measure Savings	\$0.03	\$0.25
Custom Targeted Measure Savings	\$0.20	\$1.50
Custom Standard Measure Savings	\$0.15	\$1.50

5. QUANTITATIVE PROGRAM TARGETS

Provide estimated quantitative information on number of projects, companies, non-incentive customer services and/or incentives that program aims to deliver and/or complete annually. Provide references where available.

See table below.

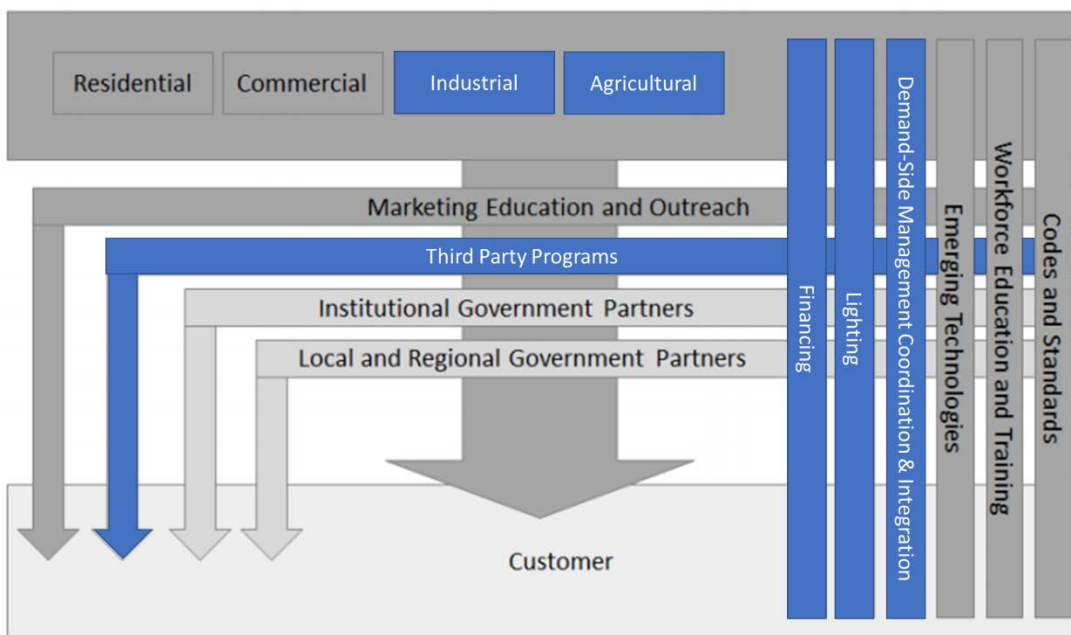
Category	2019	2020	2021	Total
# of Projects	30	80	80	190
SEM Cohort Enrollments	8-10	8-10	0	16-20

6. DIAGRAM OF PROGRAM

Please provide a one-page diagram of the program including subprograms.

This should visually illustrate the program/sub-program linkages to areas such as:

- a. Statewide and individual IOU marketing and outreach
- b. WE&T programs
- c. Emerging Technologies and Codes and Standards
- d. Coordinated approaches across IOUs
- e. Integrated efforts across DSM programs



7. PROGRAM MODIFICATIONS FROM THE CALIFORNIA SEM DESIGN GUIDE

The Program's SEM component will be modified to fit the MCE customer base, leverage best-practices and ensure cost-effective delivery. These modifications include schedule changes, workshop spacing, shifting workshop topics, EMA timing, and milestone incentives and payment timing.

These changes are intended to increase program effectiveness:

- Workshop spacing changes encourage participation
- Shifting workshop topics to improve learning and accelerate savings opportunities
- EMA and energy map timing allows the Program to detect improvements earlier and encourage action

Schedule Changes

Topics and the spacing of workshops should be adjusted to improve participation and program effectiveness. The proposed changes do not impact overall design, number of workshops/site visits and topics covered.

Design Guide Schedule			Proposed MCE Schedule		
Month	Workshop	Site Specific Activities	Month	Workshop	Site Specific Activities
1		#1 Kick-off Meeting and Existing Project Review	1	#1 Starting SEM	#1 Kick-off Meeting and Existing Project Review
2	#1 Starting SEM		2		
3	#2 EE 101	#2 Energy Map 101 #3 Treasure Hunt 101	3		# 2 EMA #1 #3 Treasure Hunt
4			4	#2 Tracking: Performance 101	
5			5		
6	#3 Tracking: Performance 101		6		
7			7	#3 Employee Engagement 101	
8	#4 Employee Engagement 101	#4 Employee Engagement	8		
9			9		
10		#5 EMA #1	10	#4 EE 101	
11	#5 Making it Stick		11		
12			12		
13			13	#5 Making it Stick	#4 EMA #2
14		14			
15	#6 EE 201	#7 Energy Map 201	15		#5 Energy Map 101
16		#8 Treasure Hunt 201	16	#6 EE 201	#6 Treasure Hunt 201
17			17		
18			18		
19	#7 Tracking Performance 201	#9 EMIS Planning/ Implementation	19	#7 Tracking Performance 201	#7 EMIS Planning/ Implementation
20			20		
21			21		
22			22		
23		#10 EMA #2	23		
24	#8 Celebrating Accomplishments		24	#8 Celebrating Accomplishments	

--	--

Workshop Spacing

Based on both the timing of the start of this cohort and resource and time constraints of the Industrial and Agricultural sectors in general, it is critical to limit the time commitment of participating facilities during the summer months. Following the schedule set out by the California SEM Design Guide would have workshops #1 and #2 as well as site specific activities #1 – #3 during the summer months. This schedule will be very difficult for the participants therefore CLEAResult proposes spacing out the group workshops. In addition, it is preferable to have an even cadence on the workshops so that the participants can plan for attendance every quarter.

Shifting Workshop Topics

All topics identified in the SEM Design Guide are retained but rearranged to accelerate savings.

It is imperative that the facilities have their hypothesis energy models as early in the program as possible, so they can help with the model development process. The Tracking: Performance 101 workshop teaches the facilities how the model is developed and helps them understand their data, this is valuable information when we are asking them about variables or deviations in their data. Therefore, we propose moving this workshop to be workshop #2. The topic outlined in the Design Guide Workshop #2 is Energy Efficiency 101 – this workshop is designed to teach the facilities how to find additional energy efficiency projects. Based on our extensive experience implementing SEM programs across North America we have found that that the Treasure Hunt is sufficient to populate the opportunity register for the first 9 months. The sites tend to become overwhelmed trying to add more projects to their list when they haven't started implementing projects. Therefore, we propose moving the Energy Efficiency 101 workshop to be Workshop #4. This also moves up the Employee Engagement workshop which is an important workshop for implementing BRO measures as it helps the site understand how to get their employees to make changes.

EMA and Energy Map Timing

The timing of the EMAs was adjusted to detect organizational progress by each site to ensure the Energy Management System was being implemented. CLEAResult is suggesting an EMA be conducted concurrent with site-specific activity #2 to establish an EMA baseline prior to any intervention. In addition, the second EMA (EMA #2) was moved into month 13, 14 or 15 so that the participant's progress can be detected earlier than month 23 as in the California Design Guide.

In CLEAResult's experience delivering SEM, the energy map is something that sites are better suited to work on in the second year of engagement. Energy teams tend to get bogged down in the details of the energy map and can spend a lot of time in the first year on that process when the focus should be on energy savings projects. Therefore, CLEAResult is suggesting that the energy map be introduced and created in the second year of the program.