



Statewide Downstream Pilots Follow-up Discussion

October 14, 2016



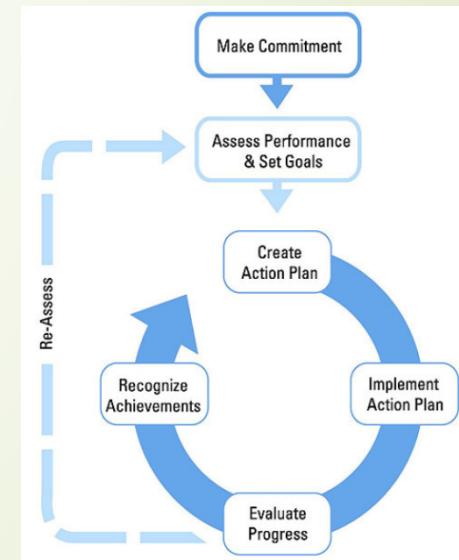
Agenda



- Introductions – Facilitator (5 min)
- Agricultural Strategic Energy Management Program – SoCalGas (5 min)
- Indoor Agriculture Program - PG&E (5 min)
- Water/Wastewater Pumping Program (Nonresidential Sector(s)/Public Sector) – SCE (5 min)
- WE&T Career and Workforce Readiness Program – SDG&E (5 min)
- Industrial Strategic Energy Management Program – SoCalGas (5 min)
- Program Elements – MCE (10 min)
- Q&A – All (20 min)

Statewide Downstream Pilot Proposal: Agricultural Strategic Energy Management (SEM) Program

- ▶ SEM represents a comprehensive, holistic approach to proactively and continuously improve energy performance in the agricultural sector
- ▶ **Key Program Features**
 - ▶ Establishes documentation process, data tracking, measurement, and evaluation feedback loop to continuously optimize energy performance
 - ▶ Spurs cultural change to engage all stakeholders (farm owners & labor)
 - ▶ Leverages continuous improvement methodologies modeled after “Total Quality Management “ concepts
 - ▶ Addresses technical, behavioral and organizational aspects of energy use
- ▶ **Benefits**
 - ▶ Improves productivity, operations, maintenance, and energy utilization
 - ▶ Increases awareness of energy management across the operation
 - ▶ Enhances team collaboration and cooperation to reduce energy use and attain shared goals
 - ▶ Creates long-range planning, self-perpetuating, and measurable change



Statewide Downstream Pilot Proposal: Indoor Agriculture Program

Program Description

- ▶ Custom Program targeting prospective cannabis producers and trade professionals servicing the medical marijuana industry
- ▶ Measure design will focus on process lighting and HVAC

Opportunities

- ▶ **Building Types:**
 - ▶ Fully enclosed warehouse type growers (existing)
 - ▶ Greenhouses with supplemental lighting (potential)
 - ▶ Field scale outdoor production (potential, not available in other states due to climate)
 - ▶ Technology Types: Energy costs account for 20-50% of total operating costs for growers
- ▶ **Process lighting:** 38% of energy consumption, predominate application type in other states
- ▶ **Venting and Dehumidifying:** 30% of energy consumption
- ▶ **Air Conditioning:** 21% of energy consumption,
- ▶ **Nominal energy usage:** Heating (5%), Water (3%), CO2 Injection (2%), Drying (1%)

Current Status

- ▶ **Medical:** Mature and expanding market with broad legislative acceptance
 - ▶ Expected to increase if recreational ballot measure fails
- ▶ **Recreational:** Anticipated growth pending Prop. 64 approval in November
 - ▶ Influx of venture capital investments due to expected approval
- ▶ Qualifications for process lighting (grow lights) can be applied to other crops grown indoors

Statewide Potential:

- ▶ In CA, 9% of household electricity usage is from indoor production
- ▶ Colorado has observed 0.5-1% total load growth since 2013
- ▶ 0.5-6 MWs of usage per facility in states which have legalized recreational use
- ▶ 6-12 month lag time observed between legalization and direct energy impacts

Statewide Downstream Pilot Proposal: Water/Wastewater Pumping Program

Name: Water Infrastructure and System Efficiency Program (WISE)

- ▶ Focuses on generating water and energy savings for water-focused entities
- ▶ 2014 IDEEA365 offering transitioning in 2017 to a SCE program
- ▶ WISEup add-on sub-program also launching for SCE in 2017

Market Segment

Water and wastewater agencies (newly formed Public Sector), plus water distribution and pumping sources

Activity Focus

Pump measures (efficiency and repair), benchmarking, audits

Past Performance

- ▶ Through July 2016
 - ▶ 1.5 million gross kWh savings
 - ▶ 152 gross kW reduction
 - ▶ 1.88 TRC
- ▶ Multi-year pipeline developed
 - ▶ 16.5 million gross kWh savings
 - ▶ 2,000 gross kW reduction

Statewide Potential

- ▶ Single vendor today for SCE, SDGE, PGE
- ▶ Proposed budget of \$1.1 million for 2017

Statewide Downstream Pilot Proposal: Career & Workforce Readiness Program

Career & Workforce Readiness Program

- The PAs recognized that a system already exists to address career readiness in disadvantaged communities.
- Influence existing workforce development agencies and organizations through an infusion of EE into existing efforts.
- Please see CAEEEECC website for full concept proposal.

Market Segment

- Disadvantaged workers/communities that are not prepared to enter a traditional energy higher education or job/career path as defined per WE&T Advice Letter A 3567-G/4592-E.

Activity Focus

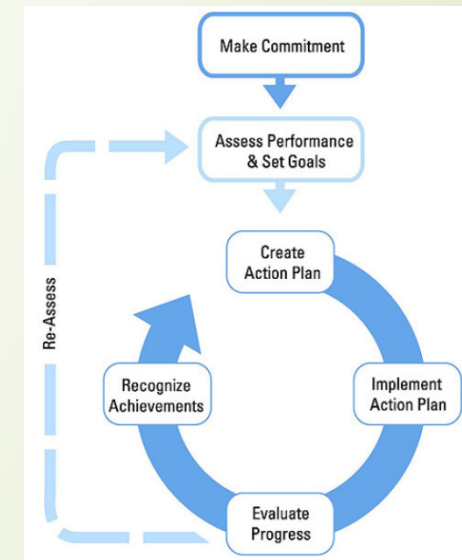
- Support California's energy efficiency and green energy goals by training the energy workforce (SB 350).
- Provide career preparation and readiness for disadvantaged/communities to enter core education or job/career pathway.
- Funded orgs should provide soft skills, job development, workforce training and potentially job placement offerings that fall outside the scope of EE funding and training.

Other Considerations

- Non-resource program
- Open to one or multiple vendors/ Budget TBD
- Feedback received from Rising Sun & Blue Green Alliance

Statewide Downstream Pilot Proposal: Industrial Strategic Energy Management (SEM) Program

- ▶ SEM represents a comprehensive, holistic approach to proactively and continuously improve energy performance
- ▶ **Key Program Features**
 - ▶ Establishes documentation process, production data tracking, measurement, and evaluation feedback loop to continuously optimize energy performance
 - ▶ Spurs cultural change within the organization by engaging all stakeholders (leadership through operations)
 - ▶ Leverages continuous improvement methodologies modeled after “Total Quality Management “ concepts
 - ▶ Addresses technical, behavioral and organizational aspects of energy use
- ▶ **Benefits**
 - ▶ Improves productivity, operations, maintenance, and energy utilization
 - ▶ Increases awareness of energy management across whole organizations
 - ▶ Enhances team collaboration and cooperation to reduce energy use and attain shared goals
 - ▶ Creates long-range planning, self-perpetuating, and measurable change



Statewide Downstream Pilot Proposal: Four Elements

Difference from Other Proposals:

- Elements of programs, not full programs
- Can improve many more than four programs
- Preserves locally tailored customer interface

Benefits:

- **Saving ratepayer funds** through eliminating duplicative administration
- **Providing consistency** among service areas when appropriate
- **Fostering a positive and valuable experience** for the customer, contractor, and installer
- **Avoids Siloed Program Delivery**

Recommended Elements:

1. Methodology for Normalized Metered Energy Consumption
2. Development of Workpapers
3. Development of Deemed Values
4. Statewide Data Support

Supported by Decision:

It is appropriate to pilot the use of a statewide approach on some downstream programs to **test the use of common elements even with regional or local variations.**

(D.16-08-019 Conclusion of Law 52)

Statewide Downstream Pilot Proposal: Four Elements

While it is true that **many downstream programs must vary due to the diversity of customers and end uses**, it is not clear that that necessarily means that all program designs and approaches downstream must be different. For example, even in the industrial sector, where custom projects vary perhaps the most among any sector because of the diversity of processes involved, it could still be desirable to have a **consistent set of program rules, documentation requirements, savings measurement requirements, etc.** regardless of the area of the state in which the program is operating.

(D.16-08-019 Page 59)



Questions?