

DOCKETED

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BUILDING A BETTER ENERGY EFFICIENT FUTURE

SDG&E's Energy Efficiency Business Plan
2018-2025 | January 2017



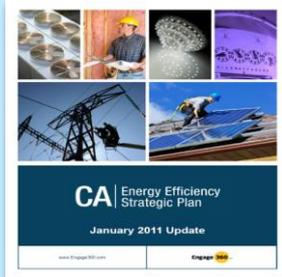
A  Sempra Energy utility®

Industrial and Agricultural Sector Strategies

Athena Besa
June 7, 2018



Energy Efficiency is California's Preferred, Cost-effective Resource



SUPPORT STATE ENERGY
POLICY GOALS



PLATFORM TO PROVIDE
SOLUTIONS



IMPROVE CUSTOMER
EXPERIENCE &
ENGAGEMENT



PURSUE STREAMLINED AND
FLEXIBLE POLICY
FRAMEWORK



USE PROGRAMS TO
OPTIMIZE GENERATION
AND T&D COSTS



Overview of Business Plan Filing

- SDG&E’s business plan provides a high-level discussion of how SDG&E will achieve CPUC statewide EE goals and strategies and charts a course towards achieving zero net energy and doubling energy efficiency savings
- The plan articulates goals and budgets through 2025:

	Short-Term 2018-2020	Mid-Term 2021-2023	Long-Term 2024-2025
Annual Budget	\$116,456,309	\$116,456,309	\$116,456,309

EE Goals	Short-Term 2018-2020	Mid-Term 2021-2023	Long-Term 2024-2025
GWh	236-238	223-214	214
MW	44-45	43	44
MMTherms	3.9-4.0	3.7-3.8	3.8

- New CPUC requirements for statewide program management and outsourcing
 - ▶ At least 25% of the total budget devoted to statewide programs that will be administered by one lead IOU
 - ▶ At least 60% of the total budget allocated to programs designed and delivered by third parties by 2020

The Past, Present, and Future of INDUSTRIAL ENERGY EFFICIENCY

MARKET CHARACTERIZATION

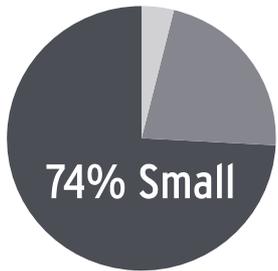
PAST & PRESENT



FUTURE

Relatively small sector:

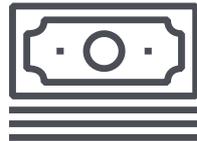
- 8% of electric consumption
- 5% of gas consumption
- 3% of EE spending
- 2% of electric savings
- 4% of gas savings



Primarily small customers

No one-size fits all solution

- Diverse end-uses
- Complex Systems
- Proprietary Processes



Profitability directs decision-making



Safety, environmental and waste compliance are priorities

CEC estimates indicate **little to no growth** in this sector through 2024



Environmental regulations for this sector continue to increase

Motors & Drives represent the largest potential for this sector. **Twice as much savings** from O&M compared to new equipment.



Wastewater treatment facilities could be a prominent segment in the future

The Past, Present, and Future of INDUSTRIAL ENERGY EFFICIENCY

DELIVERY APPROACH

PAST & PRESENT

No specific offering for industrial sector, bundled non-residential offering



- Deemed Rebates
- Calculated Incentives
- Direct Install
- Audits
- On-Bill Financing

Lacked customization to unique needs and challenges—minimal focus on process end-uses

Savings from traditional non-residential, single end-uses such as lighting and HVAC

Limited number of comprehensive projects



FUTURE

Supplement traditional approach with a more specialized intervention to allow for more robust savings



Outsourcing and leveraging external expertise will help:

- Maximize resources
- Keep costs down

A Strategic Energy Management approach that can accommodate small industrial needs will be an important element



The Past, Present, and Future of AGRICULTURAL ENERGY EFFICIENCY

MARKET CHARACTERIZATION

PAST & PRESENT



FUTURE

A very challenging market

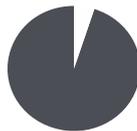
- Expensive land
- Poor soil
- Expensive and limited water



Many small farms

65% under 10 acres

2% of total electric consumption



0.2% of total EE savings

San Diego County has more farms than any other county in the U.S.



Indoor agricultural load could grow

Indoor agriculture may grow with cannabis legalization

Water costs in San Diego are highest in the State



Water will continue to be a driving factor in decision-making for agricultural customers

Water scarcity will create competition within rural areas



Potential for **gas savings** is very small

The Past, Present, and Future of AGRICULTURAL ENERGY EFFICIENCY

DELIVERY APPROACH

PAST & PRESENT



FUTURE

No specific agricultural offering,
only general non-residential offering



- Deemed Rebates
- Calculated Incentives
- Direct Install
- Audits
- On-Bill Financing

Lack of customization to unique
sector needs, barriers and challenges



Lack of collaboration with stakeholders
and industry partners

Separate and focused approach
that allows for specialization to the market



Plan to outsource
to attract expertise in area



Strategic Energy Management for
agriculture can accommodate SDG&E's
agricultural sector



The Past, Present, and Future of WORKFORCE EDUCATION & TRAINING ENERGY EFFICIENCY

MARKET CHARACTERIZATION

PAST & PRESENT



FUTURE

5% of EE portfolio spend

Topics include: HVAC, codes and standards, home/building performance, lighting, sustainability, renewables



San Diego County workforce is approximately 1.5M people

San Diego clean energy sector :

- 3,000+ companies
- 28,000+ workers
- 66% focus on EE



Market barriers include:

- Building codes, technologies, and tools change constantly.
- Demand specific skills fluctuates
- EE projects aren't comprehensive
- Customers don't value EE

California needs a trained workforce to achieve a doubling of its EE savings



Code is dynamic and complex so market actors need continuing education

Continuing education is needed for new technologies and tools



~20% growth anticipated in construction jobs and HVAC Technicians



A focus on both design and operation is needed to meet future energy savings potential

Trade professionals will shift focus from single end-uses to comprehensive approach

Market Actors need to be able to sell value proposition of EE to customers

The Past, Present, and Future of WORKFORCE EDUCATION & TRAINING ENERGY EFFICIENCY

DELIVERY APPROACH

PAST & PRESENT



FUTURE

Emphasis on commercial and residential sectors



Heavy focus on HVAC and lighting through single classes/workshops

Marketing targeted a broad, general audience

Access and reach to fully engage workforce was challenging



Ad-hoc coordination with other institutions. Gaps in their offerings for EE are unknown.

Focused on achieving savings versus the relevant value proposition (non EE benefits)

Align with and support the portfolio potential



Modernize approach

- expand delivery channels
- comprehensive, integrated curriculum

Collaborate with other education providers to expand access and reach



Attract new workers through statewide programs

Educate decision makers about the value proposition and benefit of hiring skilled workers