

**DOCKETED**

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## Topic 2: Energy Efficiency Program Approaches to Support SB 350

June 7, 2018

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DSM Planning & Integration  
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# Southern California Edison

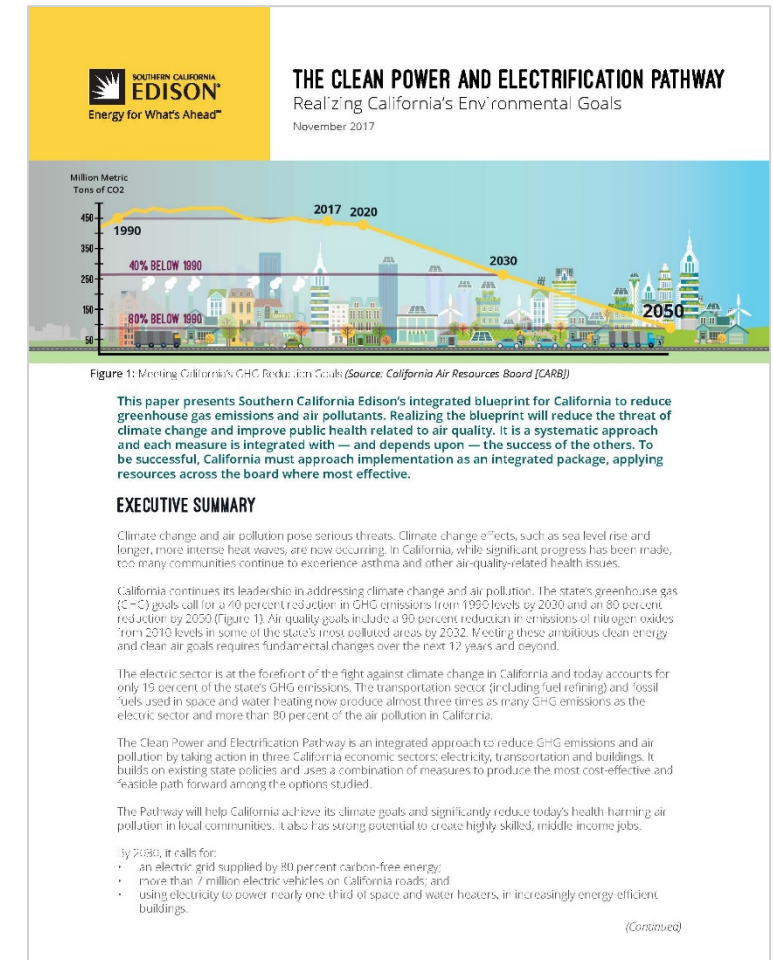
- **One of the nation's largest electric utilities**
  - 15 million residents in service territory
  - 5 million customer accounts
  - 50,000 square miles
- **Environmental Leadership**
  - Over 1 Billion kwh's saved annually and 1,300+ of peak reduction capacity
  - Delivered over 15,000 GWh and 2,600 MW (cumulative) of energy and peak capacity savings over the last 10 years
  - Leading the way in "transportation electrification" with new "charge ready" electric vehicle infrastructure program
- **A National Leader in Demand Side Management (DSM)**
  - 1st or 2nd in the nation for electric energy savings in each of the last 15 years



■ SCE Service Territory

# Business Plan Overview

- **EE Business Plans approved for 2018-2025**
- **Achieve cost-effective energy savings:**
  - Streamline number of customer offerings.
  - Utilize mid-stream and upstream delivery channels, where relevant and cost-effective.
  - Targeted customer offerings.
- **Portfolio programmatic offerings and composition may change significantly.**
  - Large composition of lighting is dramatically decreasing across the portfolio.
  - Increasing focus incorporating BRO offerings.
  - Cost effectiveness considerations impacting non-resource activities.
  - Additional customer changes for consideration such as Time of Use implementation.



## [SCE's Clean Power and Electrification Pathways](#)

## Business plan overview and offerings (cont'd)

- **Expand innovative solutions:**

- 60% Third Party participation in design, delivery and implementation of programs.
- Increasing transition to pay for performance.
- Provide customers greater access and understanding to energy usage information.
- Expanding BROs interventions, where cost-effective.

- **Additional upcoming anticipated changes:**

- 25% Statewide administration for specific programs like Residential HVAC or Savings By Design.
- Full list of programs in BP in Appendix for review, likely to change based on EE Decision requirements.
- Focus on sector and end use coverage, as applicable and cost-effective.

- **Increasing customer adoption and support market transformation, where feasible:**

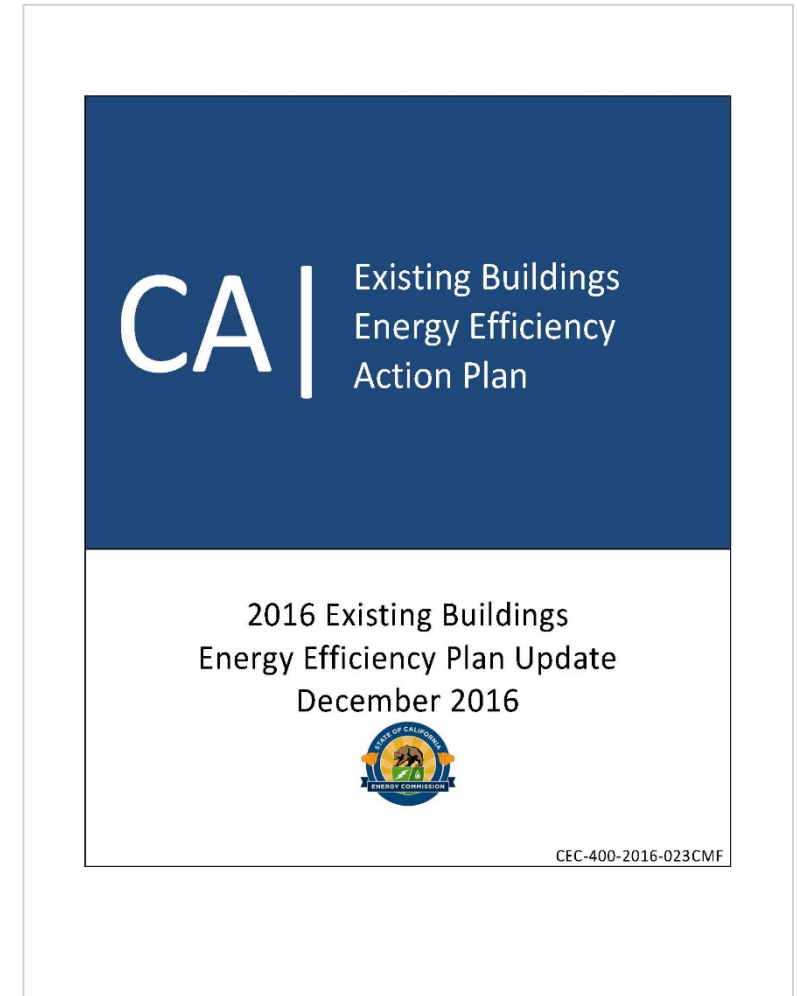
- Leverage cross-cutting resources such as Emerging Technology, Codes and Standards as well as Workforce Training and Education.
- Transition and sunset programs and approaches, as necessary.

# Sector level overview

Sector	Example Strategies and Tactics
<b>Residential Sector (Single Family, Multifamily)</b>	<ul style="list-style-type: none"> <li>- Behavioral</li> <li>- Pay for Performance (P4P)</li> <li>- Targeted deployment</li> <li>- Single Point of Contact (SPOC)</li> <li>- Customer incentives</li> </ul>
<b>Commercial</b>	<ul style="list-style-type: none"> <li>- Strategic Energy Management (Industrial)</li> <li>- Technical Assistance</li> <li>- Small Business Outreach</li> <li>- Intelligent Outreach</li> <li>- Customer incentives (Deemed and Calculated)</li> </ul>
<b>Industrial</b>	
<b>Agriculture</b>	
<b>Public</b>	<ul style="list-style-type: none"> <li>- Building Energy Benchmarking Data Access</li> <li>- Customer Data Access</li> <li>- Customer Incentives (Deemed and Calculated)</li> </ul>
<b>Cross-Cutting</b>	<ul style="list-style-type: none"> <li>- Codes &amp; Standards</li> <li>- Emerging Technologies</li> <li>- Workforce Education &amp; Training</li> </ul>


# Market Transformation

- **SCE's Energy Efficiency Portfolio supports Market Transformation.**
  - Utilization of Emerging Technologies, programs to support mass adoption to eventually move to Codes and Standards.
- **Market Transformation success has been achieved:**
  - Significant capture of "low hanging fruit"
  - Changes in lighting programs and appliance recycling
  - Increased measures and baselines built into Codes and Standards
- **Challenges with MT with today's market conditions:**
  - Declining Avoided Cost benefits associated with EE measures
  - Implementation ramp up with transition of Third Parties
  - Growing pains as we shift to pay for performance models.
  - Changes in the portfolio's GHG abatement impacts
- **MT practices suggest market characterization studies should precede MT strategies and develop MT Indicators**




# Metrics discussion

- **Utility Business Plans developed Metrics through the California Energy Efficiency Coordinating Council (CAEECC)**
  - Vetting possible options with stakeholders and Energy Division Staff.
  - List of metrics in Appendix
- **Leveraging best available data, where possible:**
  - Disadvantaged Communities participation rates to be developed
  - Developing more progressive metrics, where possible, such as specific participation data of total square footage of participation, Energy Use Intensity of participants, etc.
- **Disadvantages Communities in multiple proceedings**
  - Low Income Proceeding overlapping custom base.
  - Demand Response Pilot for Low income
  - San Joaquin Application

**SOUTHERN CALIFORNIA  
EDISON**  
Energy for What's Ahead™


**ELECTRIFICATION PILOT PROJECTS  
IN THE SAN JOAQUIN VALLEY**



**WORKING TOWARD CLEAN AIR AND HEALTHY COMMUNITIES**  
Southern California Edison (SCE) supports California's vital climate and air quality goals. In order to meet these ambitious targets, all Californians, regardless of neighborhood or income, must be able to participate in and benefit from the clean energy revolution. SCE is committed to lowering barriers to clean energy technology through infrastructure programs, rate design and innovative collaborations.

**WHY THE SAN JOAQUIN VALLEY?**  
According to the [Environmental Protection Agency](#), the San Joaquin Valley has some of the worst air quality in the country. Many people in these rural communities do not have access to stable, clean and affordable sources of energy, and therefore they use expensive wood or propane stoves for heating and cooking, which unfortunately makes air quality problems worse.  
State agencies in California, including the California Public Utilities Commission (CPUC), the California Energy Commission, and CalEPA have programs aimed specifically at improving air quality and economic conditions in disadvantaged communities.

**EARLY ACTION IN THE SAN JOAQUIN VALLEY**  
The CPUC is exploring ways to improve San Joaquin Valley community access to affordable and clean energy. SCE, along with PG&E and SoCalGas, are all participating in this effort.  
Twelve cities have been identified as potential sites for pilot projects. SCE serves three of those cities: California City, Ducor and West Goshen.





# Contact Information

Ryan Bullard

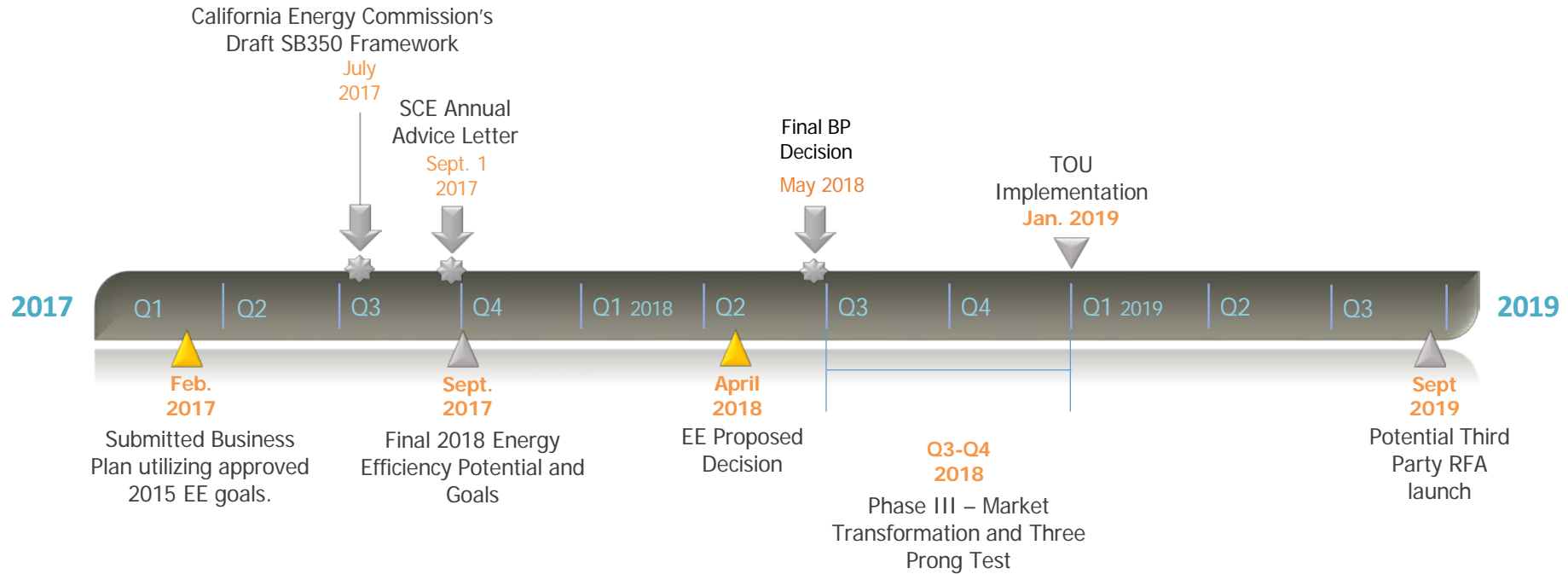
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## Appendix

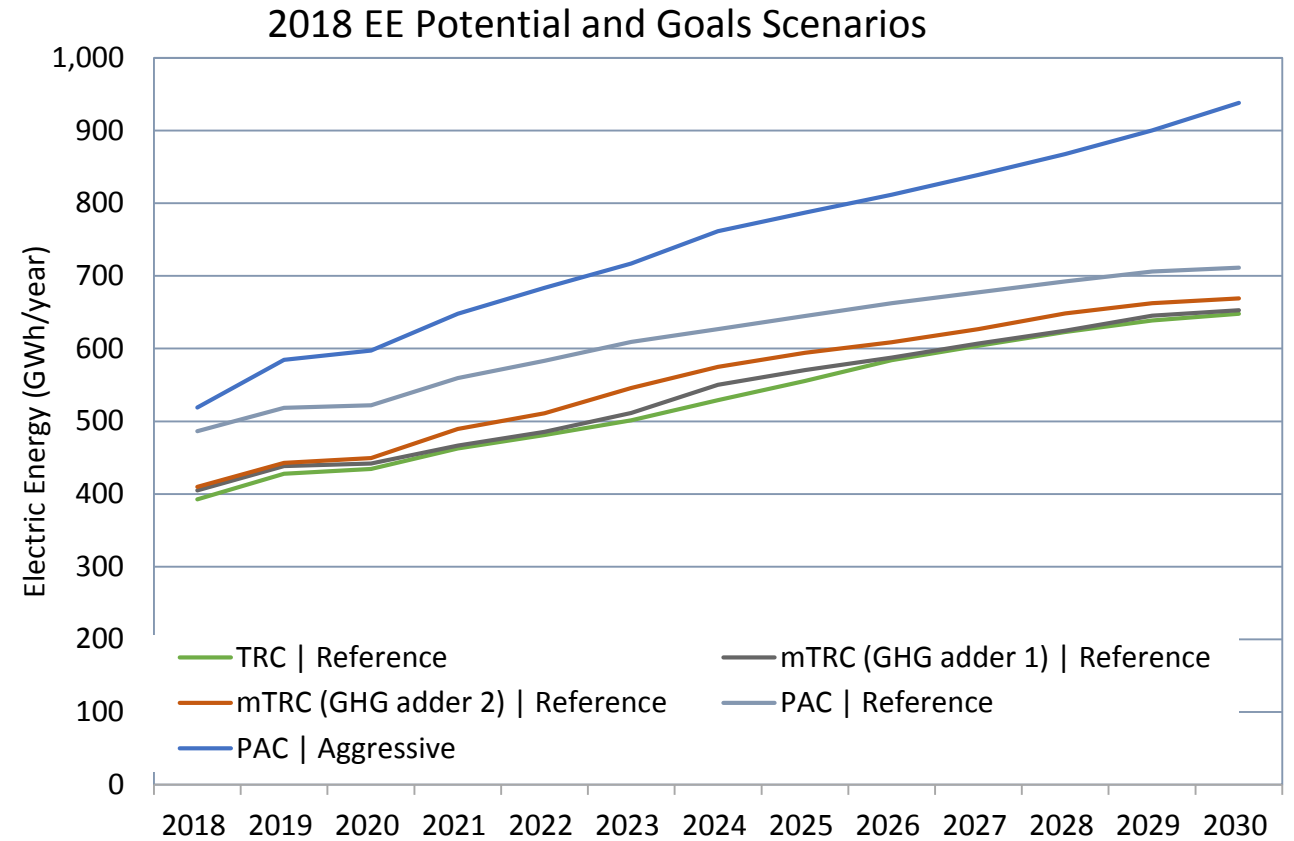
# SCE Business Plan and SB 350 Timeline



# IOU's contribution to SB350 through EE Goal setting

## 2018 Energy Efficiency Potential and Goals Attributes:

- Explored alternative assumptions beyond historical approach in line with SB350 guidance.
- Reviewed alternative cost-effectiveness test and forecasted Greenhouse Gas (GHG) values.
- Included savings beyond historical approaches such as stranded potential, behavioral, retrocommissioning and operational savings.
- Widget based savings increase 20% by 2030 while BROs savings increase 300% through the same time period.
- Anticipated to align with the Integrated Resource Plan outputs for GHG and Avoided Costs.



Sector	Program offerings*		Statewide Administration*	
<b>Residential</b>	<ul style="list-style-type: none"> <li>- Energy Advisor Program</li> <li>- Residential Direct Install</li> <li>- Multifamily Energy Efficiency Rebate Program (MFEER):</li> <li>- Comprehensive Manufactured Homes:</li> <li>- Energy Upgrade California Home Upgrade:</li> <li>- Residential HVAC Program</li> <li>- <u>AB793 Pay-for Performance*</u></li> </ul>		<ul style="list-style-type: none"> <li>- Primary Lighting Program</li> <li>- Lighting Market Transformation (LMT) and Lighting Innovation (LI)</li> <li>- Plug Load and Appliances (PLA):</li> <li>- Residential New Construction Program (RNC):</li> </ul>	<ul style="list-style-type: none"> <li>- Emerging Technologies</li> <li>- Codes and Standards</li> </ul>
<b>Commercial</b>	<ul style="list-style-type: none"> <li>- Energy Advisor Services</li> <li>- Calculated</li> <li>- Deemed</li> <li>- Continuous Energy Improvement (CEI)</li> <li>- OBF</li> </ul>	<ul style="list-style-type: none"> <li>- Direct Install</li> <li>- Healthcare EE</li> <li>- Data Center EE</li> <li>- Lodging EE</li> <li>- Commercial Utility Building Efficiency</li> <li>- Enhanced Retro-commissioning</li> <li>- <u>AB793 Pay-for Performance*</u></li> </ul>	<ul style="list-style-type: none"> <li>- Nonresidential HVAC</li> <li>- Savings By Design</li> </ul>	
<b>Ag</b>		<ul style="list-style-type: none"> <li>- Pump test</li> </ul>	<ul style="list-style-type: none"> <li>- NA</li> </ul>	
<b>Industrial</b>		<ul style="list-style-type: none"> <li>- Comprehensive Chemical Products</li> <li>- Comprehensive Petroleum Refining</li> <li>- Oil Production</li> <li>- Food &amp; Kindred Products</li> <li>- Primary &amp; Fabricated Materials</li> <li>- Non-Metallic Minerals &amp; Products</li> <li>- Mid-Size Industrial Customers</li> <li>- <u>Strategic Energy Management*</u></li> </ul>	<ul style="list-style-type: none"> <li>- NA</li> </ul>	
<b>Public</b>		<ul style="list-style-type: none"> <li>- Pump test</li> <li>- Technical Assistance</li> <li>- Direct install</li> </ul>	<ul style="list-style-type: none"> <li>- CSU/UC Partnership</li> <li>- State of California Partnership</li> <li>- CSD Partnership</li> </ul>	

\*Offerings subject to change based on Final EE Decision

# Data Measures for Metrics Filed

Colors denote level of data precision: **green** = available with high degree of confidence, **yellow** = assumptions made, **red** = unavailable

Data Measures	Unit of Measure	Portfolio	Res-SF	Res-MF	Commercial	Public	Industrial	Agricultural
EE Savings - Gross	kWh, kW	Total, DAC, HTR	Total	In Unit, Common Area, Master Metered	Total	Total	Total	Total
EE Savings - Net	kWh, kW	Total, DAC, HTR	Total	In Unit, Common Area, Master Metered	Total	Total	Total	Total
# EE Participants	Num		Total, HTR only DAC only	Total, HTR, DAC, Unit, Building, Property	Small, Medium, Large, HTR		Small, Medium, Large	Small, Medium, Large
# of EE Projects	Num			Total (property)	Total	Total (building)		
Eligible Population	Num		Total, HTR only DAC only	HTR, DAC, Unit, Building, Property	Small, Medium, Large, HTR	Total (building)	Small, Medium, Large	
Sqft of EE Participants	Sqft			Properties	Total	Total		
Sqft of Eligible Population	Sqft			Properties	Total	Total		
Levelized Cost (lifecycle PAC & TRC)	\$	Total	Total	Total	Total	Total	Total	Total
Sector Usage	kWh		Total	Total	Total	Total	Total	Total
Investment	\$				Total	Total		
# New EE Participants	Num						Small, Medium, Large	
Sqft Benchmarked	Sqft				Total	Total		
Sqft of Eligible Benchmark Population	Sqft				Total	Total		