

DOCKETED	
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SB 1477: Pilot Guidelines and Parameters of BUILD and TECH

Building Decarbonization Workshop



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July 30, 2019
California Energy Commission
California Public Utilities Commission



SB 1477 Funding Source

- \$50 million/yr in FY19/20 – FY22/23
- Cap-and-Trade revenues from gas corporations
- Administrators must comply with Cap-and-Trade Regulation
 - Annual reporting to the California Air Resources Board on use of funds and expected GHG emission reductions





SB 1477 Annual Program Budget

40% to BUILD	60% to TECH
\$20 million – Total	\$30 million – Total
\$12 million for program costs	\$23 million for program costs
\$6 million for low-income program costs	\$5 million for “quick start” grants
\$2 million for administration	\$2 million for prize program
\$ 2 million for evaluation (of both programs)	



Clean Heating Technologies

- Electric space and water heat pumps
- Solar hot water with electric backup
- Heat pump dryers
- Induction cooktops





SB 1477 Guiding Principles

- Equity
- Path to carbon neutrality
- Regulatory simplicity
- Transparency
- Market transformation
- Lessons learned and data reporting
- Cost-effectiveness





Metrics: GHGs and Bill Savings

- SB 1477 requirements:
 - Cost per metric ton of avoided GHG emissions
 - Projected annual and lifetime utility bill savings
 - Number of low-emission systems installed (BUILD)
 - Market share for eligible technologies (TECH)
- Cap-and-Trade fund requirements:
 - Total avoided GHG emissions from each year's expenditures
 - Total expenditures
 - Itemization of administration and outreach expenditures





Metrics: Utility Bill Savings

- Improve energy and housing affordability
- Will not incentive projects resulting in higher utility bills
- Track full net lifetime cost to end-users
 - Equipment (capital cost)
 - Installation
 - Maintenance
 - Other operation costs
- Non-GHG benefits





Target Market Segment

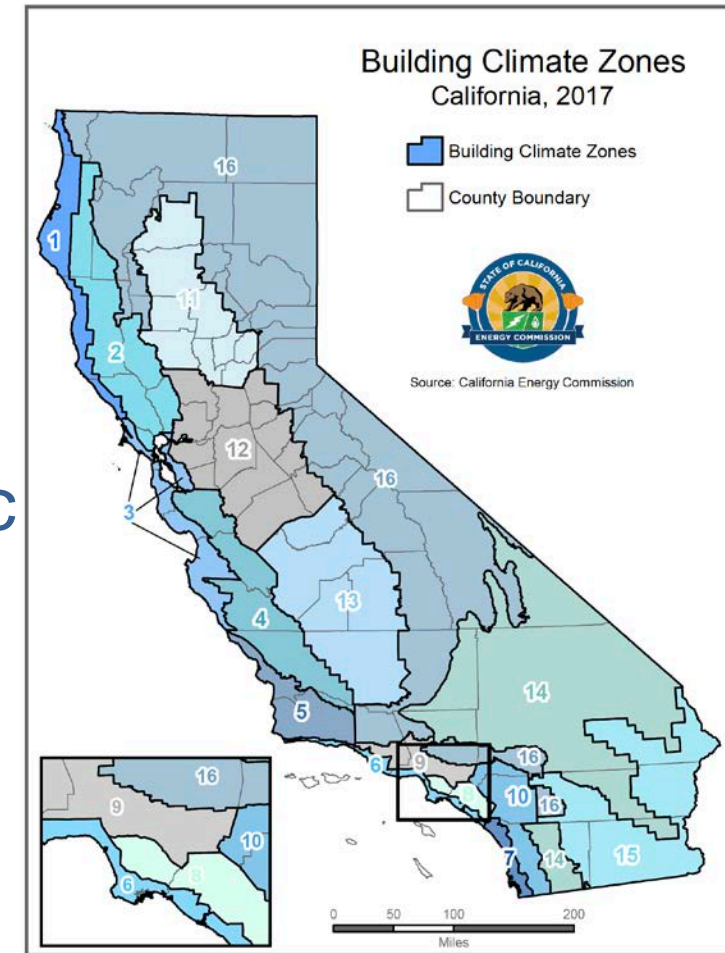
- Strategic focus to foster long-term changes in:
 - New construction
 - Contracting
 - Retrofit
 - Appliance marketplace
- TECH audiences:
 - Upstream
 - Midstream





Target Technologies

- Build all electric in new construction
- For retrofits:
 - Install HP HVAC where cooling load is high
 - Replace propane, distillate, or electric resistance heating with high efficiency electric
 - Replace gas furnaces and gas water heaters with high efficiency electric
 - Incentivize retrofits for low-income
 - Cover installation cost





Evaluation

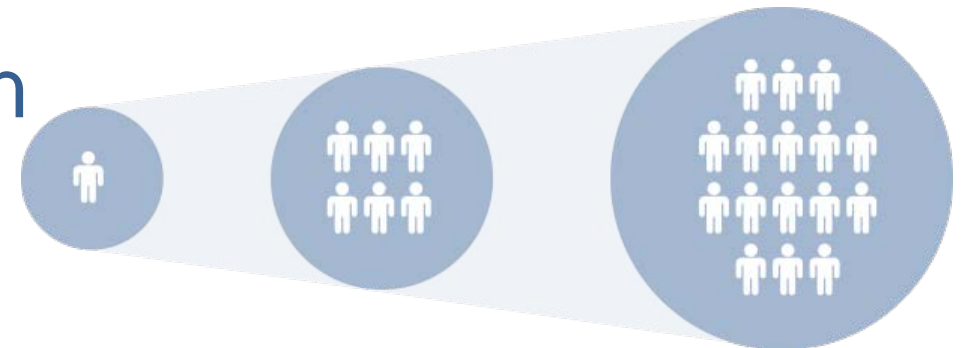
- Evaluation budget 4% of program cost (\$2 million)
- One evaluator for both BUILD and TECH
- Competitive solicitation for program evaluator
- CPUC will form a Project Coordination Group
- Evaluation based on metrics for program impact and process
- Stakeholder review workshops





Coordination and Scalability

- Leverage, combine, and interact with other energy programs
- Inform long-term building decarbonization policy framework
- Demonstrate scalability in marketplace
- Lead to rapid market transformation





Questions

- Submit comments by August 13:
 - CPUC
 - Parties of R.19-01-011 must file and serve comments to the proceeding
 - Energy Commission
 - <https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=19-IEPR-06>
 - Email docket@energy.ca.gov with 19-IEPR-06 and building decarbonization in the subject line