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<tr>
<th><strong>Docket Number:</strong></th>
<th>19-IEPR-06</th>
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</thead>
<tbody>
<tr>
<td><strong>Project Title:</strong></td>
<td>Energy Efficiency and Building Decarbonization</td>
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<tr>
<td><strong>TN #:</strong></td>
<td>229193</td>
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<tr>
<td><strong>Document Title:</strong></td>
<td>Pilot Guidelines and Parameters of BUILD and TECH</td>
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<tr>
<td><strong>Description:</strong></td>
<td>Presentation by Martha Brook of CEC</td>
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<td><strong>Filer:</strong></td>
<td>Raquel Kravitz</td>
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<tr>
<td><strong>Organization:</strong></td>
<td>California Energy Commission</td>
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<tr>
<td><strong>Submitter Role:</strong></td>
<td>Commission Staff</td>
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<td><strong>Submission Date:</strong></td>
<td>8/1/2019 8:13:40 AM</td>
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<td>8/1/2019</td>
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SB 1477: Pilot Guidelines and Parameters of BUILD and TECH

Building Decarbonization Workshop

Martha Brook
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

<table>
<thead>
<tr>
<th>40% to BUILD</th>
<th>60% to TECH</th>
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</thead>
<tbody>
<tr>
<td>$20 million – Total</td>
<td>$30 million – Total</td>
</tr>
<tr>
<td>$12 million for program costs</td>
<td>$23 million for program costs</td>
</tr>
<tr>
<td>$6 million for low-income program costs</td>
<td>$5 million for “quick start” grants</td>
</tr>
<tr>
<td>$2 million for administration</td>
<td>$2 million for prize program</td>
</tr>
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<td>$ 2 million for evaluation (of both programs)</td>
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</tbody>
</table>
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
• 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
• 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 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
    • Email [docket@energy.ca.gov](mailto:docket@energy.ca.gov) with 19-IEPR-06 and building decarbonization in the subject line