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Building Decarbonization

Overview of CPUC-led activities
Oct 18, 2019
Abhilasha Wadhwa, Analyst, Energy Efficiency Branch
Legislation

- **AB 2672 (2014, Perea):** Requires CPUC to increase access to affordable energy in San Joaquin Valley disadvantaged communities

- **SB 350 (2015, DeLeon):** Requires doubling of energy efficiency by 2030 and identification of barriers to accessing clean energy for low-income customers

- **AB 3232 (2018, Friedman):** Requires CEC to produce plans (with CPUC) to reduce buildings emissions by 40% below 1990 levels by 2030

- **SB 1477 (2018, Stern):** Allocates $50 million/year for new and existing building programs, out of which 30% shall be for new low-income housing.

- **SB 100 (2018, DeLeon):** Sets a goal of zero-carbon electric grid by 2045
• **R.15-03-010** – Energy program for San Joaquin Valley disadvantaged communities. D.18-12-015 approved 11 pilots.

• **R.19-01-011** – Rulemaking initiated in January 2019. Scope includes:

  ✓ Implement SB 1477
  ✓ Pilot programs for Fire Rebuild
  ✓ Building and Appliance Standards coordination
  ✓ Long-term policy framework
2019
• Rulemaking Initiated
• Workshops, Staff Proposal for SB 1477

2020
• SB 1477 Final Decision (end of Phase 1)
• SB 1477 RFP / Implementation Plans
• SB 1477 Implementer selected/ Implementation begins
• Phase II Procedures (Fire rebuild pilots; Standards Coordination)
• Long-term Policy framework

2021-2023
• Implementation
1. Implementation of SB 1477

- Authorizes the CPUC to select a program implementer for BUILD and TECH programs
  A. BUILD = Building Initiative for Low Emissions Development
  B. TECH = Technology and Equipment for Clean Heating

- May set rules and guidelines for program implementation, including design, participant eligibility, incentive levels, evaluation protocols

- 30% of SB 1477 funds must target new low income housing

Habitat for Humanity all electric, ZNE home, Santa Ana. Photos: Orange County Register
3. Building and Appliance codes and standards
• CPUC will consider specific program policies, procedures, and rules to incent builders to choose Title 24 compliance pathways that maximize GHG reductions.

4. Develop a Building Decarbonization Policy Framework
• Development of a coherent and comprehensive set of Commission rules, policies, and procedures to accelerate the reduction of GHG from buildings.
  • Draw on lessons learned from the smaller-scale programs authorized by SB 1477 to scale up, including rate design.
# SB 1477 Snapshot

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<th>BUILD</th>
<th>TECH</th>
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<tr>
<td><strong>Goal</strong></td>
<td>Incentivize near-zero emissions technology in new buildings</td>
<td>Market development for low-emissions space and water heating</td>
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<td><strong>Sector</strong></td>
<td>Residential new construction, multi-family and single family</td>
<td>Residential new and existing, multi-family and single family</td>
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<td><strong>Eligible Tech</strong></td>
<td>Near-zero emissions technologies that significantly reduce GHG emissions</td>
<td>Low emissions space and water heating equipment in early market development</td>
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<td><strong>Recipients/Interventions</strong></td>
<td>Owners and developers of new housing</td>
<td>Upstream/midstream market development and incentives, contractor and vendor training, consumer education</td>
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<td><strong>Equity Requirements</strong></td>
<td>A minimum of 30% of funds reserved for qualified low-income housing</td>
<td>Must include outreach strategies for hard to reach customers; provide training and employment opportunities</td>
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Table: NRDC/Transcendent Energy
Proposed BUILD Program Elements

• A minimum of 30 percent of total SB 1477 funds reserved for new low-income housing (as defined by SB 1477).

• California Energy Commission serves as direct program administrator

• Direct financial incentives for deployment of near-zero emissions technology to reduce GHG emission in new residential buildings

• Administrator required to provide technical assistance to engage this demographic.

• Eligible recipients include owners or developers of new residential housing

• No new gas infrastructure allowed to be eligible for BUILD incentives
1. Baseline incentive levels:
   1. For specific technology categories
   2. By climate zone

2. Baseline technology categories
   1. Space heating
   2. Water heating
   3. Electric cooking

3. “Kicker incentives” beyond baseline incentivized technologies:
   1. Thermal storage
   2. Electrical storage
   3. Low-global warming potential (GWP) refrigerants
   4. Other?
1. Upstream: Incentives and partnership with supply side market actors

2. Midstream: Workforce development, education, and supply chain management

3. High-impact, quick-start pilot projects

4. Targeted geographies (hotter climates with existing AC systems)
Questions/ Discussion

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