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Building Decarbonization

Overview of CPUC-led activities Oct 18, 2019

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Building Decarbonization Policy Context

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



CPUC's Proceedings

- **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



R.19-01-011 Timeline

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



CPUC's Proceeding on Building Decarbonization

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



CPUC's Proceeding on Building Decarbonization

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

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

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



Proposed BUILD Program Elements

- 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?



Proposed TECH Program Elements

- 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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