



# Building Decarbonization

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Overview of CPUC-led activities

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# Building Decarbonization Policy Context

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## 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

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- **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

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### **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

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### **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
<b>Goal</b>	Incentivize near-zero emissions technology in new buildings	Market development for low-emissions space and water heating
<b>Sector</b>	Residential new construction, multi-family and single family	Residential new and existing, multi-family and single family
<b>Eligible Tech</b>	Near-zero emissions technologies that significantly reduce GHG emissions	Low emissions space and water heating equipment in early market development
<b>Recipients/ Interventions</b>	Owners and developers of new housing	Upstream/midstream market development and incentives, contractor and vendor training, consumer education
<b>Equity Requirements</b>	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

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- 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

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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?



## Proposed TECH Program Elements

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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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