



Building Decarbonization In California: Policy & Programs

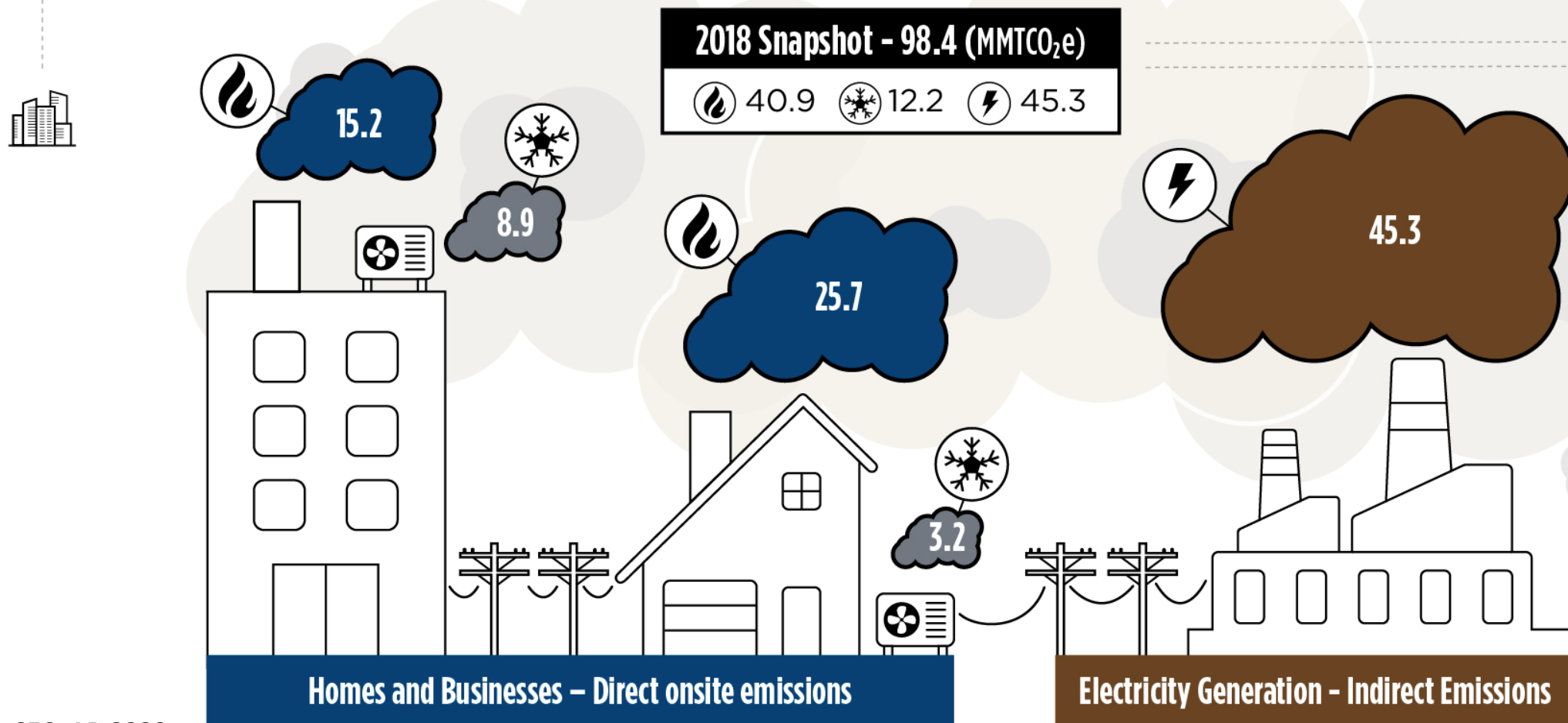
Update from the California Energy Commission

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2018 Greenhouse Gas Emissions from Buildings (MMTCO₂e)

 Combustion
  Refrigerant (HFCs)
  Electricity



California's Building Decarbonization Goals

- Support carbon neutrality by 2045
- 6 million heat pumps deployed by 2030
- Climate-friendly and climate-ready homes:
 - 3 million by 2030
 - 7 million by 2035
- Load-shift goal of 7,000 MW by 2030



Residential Units

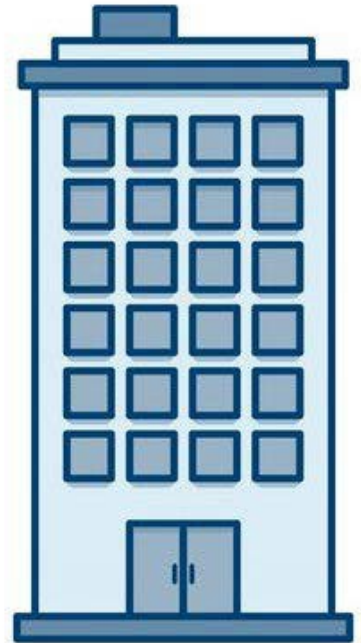
13.7 million

Annual Electricity Consumption

93,522 GWh

Annual Gas Consumption

4,562 MM therm



Commercial Space

7,392 million sq. ft.

Annual Electricity Consumption

105,174 GWh

Annual Gas Consumption

2,130 MM therm

Source: CEC 2019 Energy Demand Forecast

Building Decarbonization Incentive Programs (~ \$1.7 B)

Equitable Building Decarbonization (\$922M)

- Statewide Direct Install (\$643.7M)
- Tribal Direct Install (\$30M)
- Existing Programs (\$30M)
- Statewide Incentive Program (\$80M)
- Program Admin. (\$138.8M)

BUILD (\$80M) & CalEHP (\$75M)

- Building Initiative for Lower-Emissions Development (BUILD)
- California Electric Homes Program (CalEHP)
- Focus on new construction for low-income & market rate homes

Demand Side Grid Support Program (DSGS) (\$314M)

- Incentives to electric customers that provide load reduction & backup generation
- Supports the state's electrical grid during extreme events, reducing the risk of rotating power outages

Inflation Reduction Act Programs (\$592M)

- HOMES | Efficiency (\$282M)
- HEEHRA | Electrification (\$280M)
- Contractor Training (\$10M)
- Tax Credits & Technical Assistance (\$10M) (state)

CEC: Key Standards Supporting Decarbonization

- Building Energy Efficiency Standards (Title 24, Part 6)
 - CEC authority is to *reduce energy consumption*
 - 2022 Standards - Heat pump (HP) baselines for new construction
 - 2025 Standards (*in process*) - Expand requirements for new construction and add requirements for alterations
- CALGreen (Title 24, Part 11): Enables local governments to "stretch"
- Appliance Efficiency Regulations (Title 20)
- Load Management Standards (LMS)
- Flexible Demand Appliance Standards (FDAS)



R&D – Electric Program Investment Charge (EPIC)

Continued energy innovation will play a key role in ensuring California benefits from clean, affordable, safe, and reliable energy – propelling the state as the world’s fourth largest economy while advancing leading-edge climate change solutions.

EPIC INVESTMENTS (2012-2022)

\$1.1 BILLION FOR **474** PROJECTS



Clean Energy Entrepreneurial Ecosystem

\$236 million



Grid Decarbonization & Decentralization

\$223 million



Resiliency & Safety

\$195 million



Industrial & Agricultural Innovation

\$119 million



Building Decarbonization

\$249 million

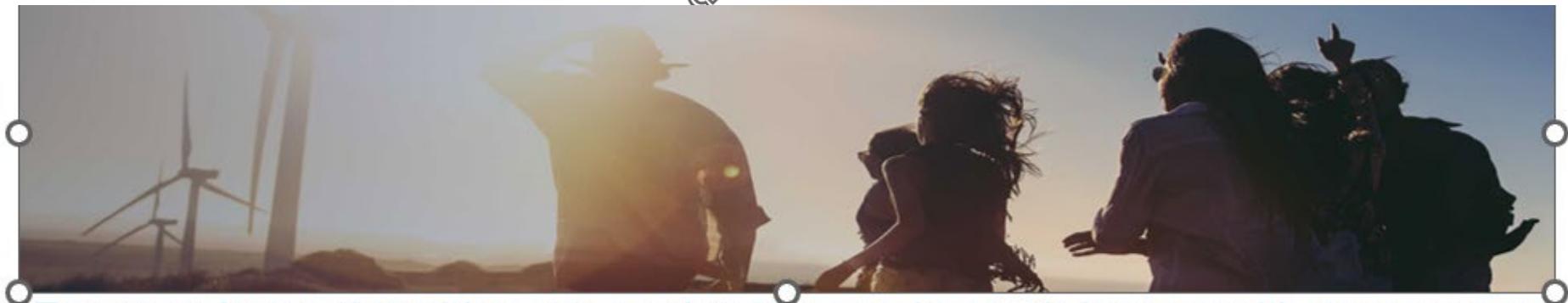


Zero-Emission transportation

\$86 million

Source: Electric Program Investment Charge 2022 Annual Report

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Empower Innovation strives to accelerate your cleantech journey with easy access to funding opportunities from the Energy Commission and other funding providers, curated resources and events, and connections to people and organizations.

FIND A PARTNER

Announce your interest in this funding opportunity and message other interested parties to find potential partners.

RESOURCES & TOOLS

Browse the collection of resources for cleantech innovators including Resource Libraries, Funding Sources, Tools, and Databases.

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