

MEMO



Office of Sustainability

DATE: May 10, 2023
TO: Sustainability Commission
FROM: Cory Downs, Conservation Specialist
VIA: Monica Rodriguez, Sustainability Commission Secretary
RE: Building Decarbonization Working Group Recommendation

Chula Vista Decarbonization Working Group Recommendation to the Sustainability Commission

To help reduce greenhouse gas emissions, local air pollution and help achieve the Climate Action Plan objectives 3.2 clean energy sources and objective 3.3 energy efficiency upgrades, which have the goals of transitioning new buildings to a Zero Net Energy design and increasing the amount of energy efficient appliances being installed in homes, City staff leveraged resources provided by the Statewide Reach Code team (<https://localenergycodes.com>) to evaluate recently released studies looking at the impacts of adopting various reach codes that go beyond the state's minimum code. Because the studies indicated that, for Chula Vista, an all-electric home with a larger than required solar system helps lower the upfront price of homes and has lower annual energy utility bills than a mixed fuel home, City staff initiated the Chula Vista Building Decarbonization Working Group to solicit feedback from diverse community stakeholders. The working group had 23 members, table below, and held 11 meetings and one public forum from July 2021 through August of 2022.

Chula Vista Decarbonization Working Group Members

Baldwin & Sons	Homefed	San Diego Building Electrification Coalition	City of Imperial Beach
California Energy Alliance	Inspection Perfection	San Diego Community Power	City of La Mesa
Center for Sustainable Energy	Meridian Development	San Diego Building Industry Association	San Diego Regional Climate Collaborative
Climate Health Now	Mesa Energy Systems/EMCOR	San Diego Gas and Electric	City of San Diego
Climate Action Campaign	Pacific Southwest Association of Realtors	San Diego Green Building Council	Building Decarbonization Coalition
Grid Alternatives	Pipefitter Union	City of Chula Vista Sustainability Commission	

Each working group member had the opportunity to present their perspectives and issues with decarbonization to the group. In all, the group received eight presentations from members and several additional presentations from staff. The working group adopted their recommendation, below, with a vote of 5 to 3 (with 2 members abstaining and the rest not joining the meeting) in their August 2022 meeting.

Decarbonization Working Group Recommendation

Require most new construction including single family, multifamily, medium office, retail and quick service restaurants to be all electric and include applicable energy efficiency and load flexibility.

- Do not include hotels, multifamily buildings above 3 stories or restaurant cooking because of on-bill impacts
- Include load flexibility for medium office and quick service restaurant
- No additional PV requirement, but larger system would offset some on-bill impacts

Presentation to the Sustainability Commission

This recommendation was presented to the Sustainability Commission on May 8, 2023. The staff presentation included background information related to:

- The unequal impacts of climate change in Chula Vista as shown by looking at the differences in tree cover as seen in the [Climate Equity Index](#)
- The Chula Vista [Climate Emergency Declaration](#)
- Most recent [greenhouse gas inventory](#)
- Climate and clean air benefits of electrifying
- Potential future cost impacts of maintaining a natural gas distribution system
- State electrification actions and incentives
- Other jurisdictions adopting electrification ordinances and electrification updates included in the recent statewide code update
- Potential electrification code options
- Cost effectiveness study results.

After hearing from members of the working group and from the public, the Sustainability Commissioners adopted the recommendation below.

Sustainability Commission Recommendation

Require most new construction including single family, multifamily, medium office, retail and quick service restaurants to be all electric and include applicable energy efficiency and load flexibility.

- Do not include hotels, because of on-bill impacts
- Utilize Time Dependent Valuation (TDV) to evaluate cost effectiveness
- Define Substantial Remodels as when a project modifies 50% of existing square feet of the building
- Include Accessory Dwelling Units (ADU) and public pools
- Include restaurant cooking but allow for a waiver, if needed

The impact of this recommendation on new construction is expected to bring down the cost of new construction because the removal of natural gas infrastructure allows for an estimated \$5,000 in cost savings per home. Additionally, because the Gas Line Allowance is being phased out in July of 2023, that would add an estimated additional \$3,000 up front cost to a mixed fuel

building. While the cost effectiveness studies did find that an average single family home's annual energy bills would increase by approximately \$450 per year for an all-electric home, this can be offset by expanding the required solar system to meet the larger load of an all-electric home.

Next Steps

This recommendation will be presented back to the Building Decarbonization Working Group to solicit further public feedback in a June or July meeting (depending on member availability). After working with the City Attorney's Office, staff anticipates presenting the recommendation to City Council in September (tentative date based on hiring and feedback from the new Building Official). If approved by City Council, staff will submit the ordinance to the California Energy Commission (CEC) at their next available meeting before filing the ordinance with the California Building Standards Commission. The ordinance would be effective starting in 30 days after the second reading but could be delayed depending on the CEC meeting schedule.

Additional Resources

Decarbonization Working Group Page

- <https://docs.google.com/document/d/1YwBY8XdKBeBrkLIXnEIDXNaUX2hSKy1miYT6uIdp04M/edit?usp=sharing>

Cost effectiveness studies

- <https://localenergycodes.com/content/resources/?q=2022%20cost-effectiveness%20studies> or <https://explorer.localenergycodes.com/> (the explorer makes it easier to search for study findings)

Zero Emission Building Tracker

- <https://buildingdecarb.org/resource/zero-emission-building-ordinances-tracker>

Electrification contractor and rebate information

- <https://switchison.org/>

San Diego Building Electrification Coalition

- <https://sdbec.org/>