

DOCKETED

Docket Number:	20-BUSMTG-02
Project Title:	Public Comment on California Energy Commission Business Meetings
TN #:	235870
Document Title:	Redwood Energy's Comments on Item #8 Reach Codes
Description:	Redwood Energy Comment Letter on Item #8 Reach Codes
Filer:	Rosemary Avalos
Organization:	California Energy Commission
Submitter Role:	Public Advisor
Submission Date:	12/7/2020 12:48:03 PM
Docketed Date:	12/7/2020



Sean Armstrong, Principal
Redwood Energy
1887 Q Street
Arcata, CA 95521
(707) 826-1450

December 6, 2020

RE: Please vote in favor of Item #8 Reach Codes; Developers have preferred all-electric construction since the 1950s

Honorable Energy Commissioners,

I encourage you to vote in favor of the Item #8 Reach codes. The development community is, broadly speaking, aware of the cost savings and simplicity of building all-electric. The majority of American homes have been built with electric water heaters since 1950, and since 1970 for electric space heating,¹ while electric stoves are now 61% of sales² and electric laundry dryers are 88% of sales.³ The map on p.3 shows the decline of Propane and Methane/“natural gas” in California, and below are developers explaining why all-electric development is good business. Please adopt a version of these Reach Codes in the 2022 Title 24 Code!



“All-electric is a no brainer. The cost of bringing gas to a building site is expensive. In our developments all-electric is less expensive to build and just as efficient, or more efficient, in operations. And you can't generate gas onsite, but you can generate electricity with solar electric panels to lower bills.”

- Chris Dart, President of Danco Communities

Danco Communities is one of the largest affordable housing developers in Northern California

“All-Electric design does simplify construction and I am not aware of any significant cost impacts.”

-Laura Knothe, Construction Project Manager with Pacific West Builders, one of The Pacific Companies

The Pacific Companies is one of the 10 largest affordable housing developers in the U.S., as well as a significant modular school builder.



¹Engelberg, Jeremy and Brassell, Evan. “Differences in Fuel Usage in the United States Housing Stock: American Housing Survey Report.” September, 2019. U.S. Census Bureau. <https://www.census.gov/content/dam/Census/library/publications/2019/demo/h150-19.pdf>

² Statista 2020. “Unit shipments of electric/gas cooking appliances in the U.S. from 2007 to 2017.” <https://www.statista.com/statistics/295477/unit-shipments-of-electric-gas-cooking-appliances/>

³ Statista 2020. “Gas dryer unit shipments in the United States from 2005 to 2017.” <https://www.statista.com/statistics/322357/gas-dryers-shipments-united-states/>



“Mutual Housing California develops sustainable, affordable housing for our resident members. All-electric communities with sustainable features provide occupants with a healthier living environment free from the harmful and dangerous effects of gas appliances. **Our two most recent new development communities were built all-electric, which was healthier, feasible, and not cost prohibitive.**”

-Vanessa Guerra, Senior Project Manager, and Bryan Dove, Director of Asset Management of Mutual Housing California. In 2017 MHC won the Grand Prize in the World Habitat Awards for all-electric, ZNE farmworker family housing in Yolo County.



Eliminating gas laterals to our development of 14 “tiny houses” for homeless veterans saved \$30,000 and got them housed weeks sooner. Now the development is built and we can see it’s affordable to operate-- each penny we can save on our operational costs means a penny we don’t pass along to our highly vulnerable, extremely low-income tenants. And it’s more sustainable for our planet.”

-Paula Cook, Executive Director of Community Housing of Sonoma County CHSC is a small non-profit affordable housing developer urban Sonoma County.



“BLH built four farmworker housing complexes for the non-profit Corporation for Better Housing in the rural towns of Calistoga (2015), Cloverdale (2016), Atascadero (2019) and Ukiah (2019). **The avoided gas laterals saved \$15,000 per building, up to \$45,000 per site.**”

-Brian Holland, Chief Operations Officer of BLH Construction in Sherman Oaks, CA. BLH Construction has built more than 60 affordable housing developments for the Corporation for Better Housing



“**Budget comparisons at People’s Self Help Housing showed significant cost savings per unit by going All-Electric.** This, along with having to coordinate with one less utility company during design and construction, making the decision in 2020 to require all electric designs for their new headquarters and affordable housing portfolio an easy one. All-electric makes for a healthier indoor environment for the residents, and building all-electric we can 100% offset the utility bills to maximize the tenant savings.”

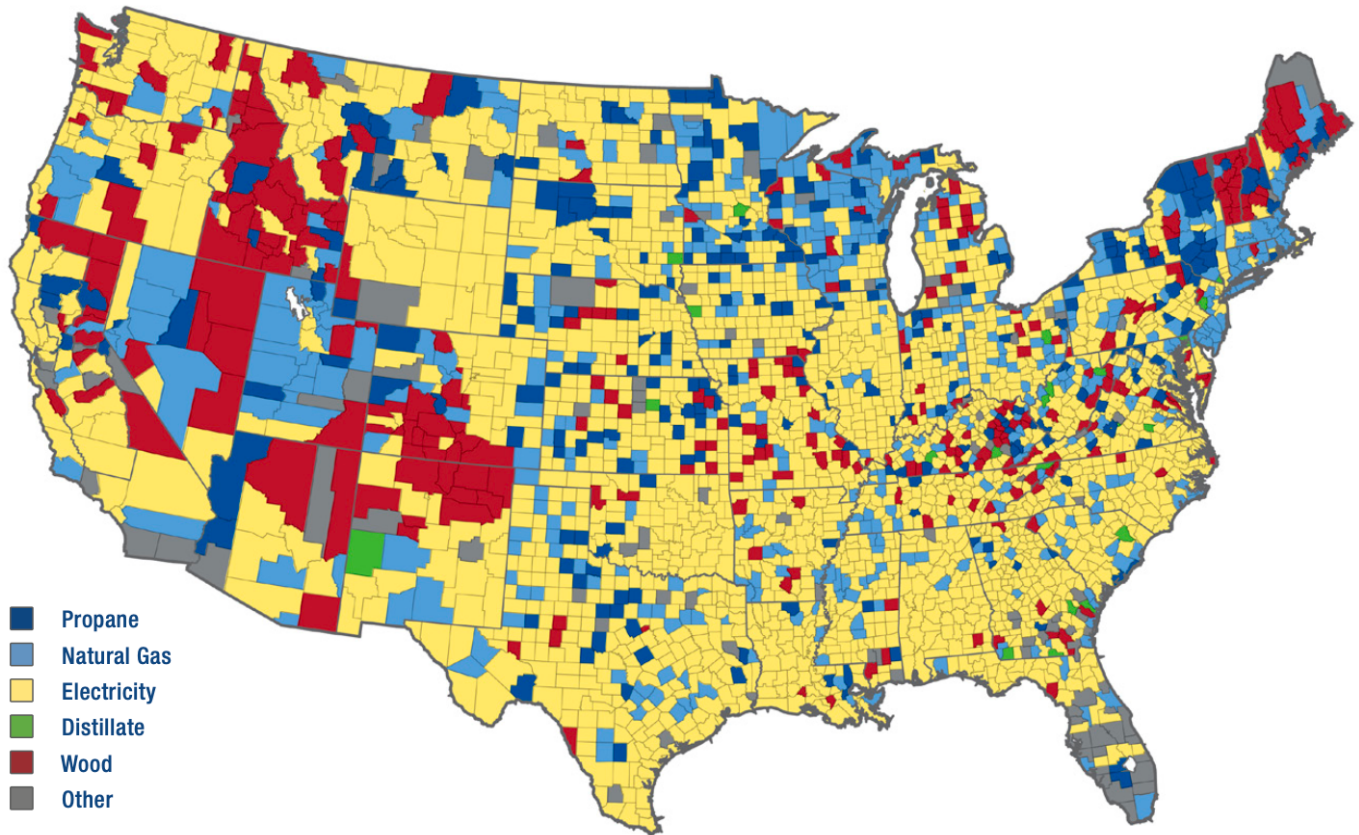
-Michael Hicks, General Contractor, LEED AP, and former Green Coordinator for People’s Self Help Housing in San Luis Obispo, CA.

Sincerely,

Sean Armstrong
 Managing Principal
 Redwood Energy

Fig.

Fuel with Largest Market Share Gains between 2010 and 2014



The above map from the 2016 Propane Market Outlook report illustrates both California and nation-wide market share growth of electricity to provide what natural gas, propane and wood used to. Below is a quote from Page 13 of the report where the authors (ICF International) explain the role of heat pumps in the loss of propane's market share.

2016
Propane
Market
Outlook

Key Market Trends, Opportunities, and Threats Facing the Consumer Propane Industry Through 2025

Prepared for the Propane Education & Research Council (PERC) by:
ICF International, Inc.
9300 Lee Highway
Fairfax, VA 22031
Tel (703) 218-2758
www.icfi.com

PRESENTED BY:
PROPANE
education & research
COUNCIL

Technological Improvements in Electric Heat Pumps

Much of the loss in propane market share in the residential sector in recent years is attributable to competition with conventional electric heat pumps. This competition is expected to intensify over time as ongoing technological improvements reduce or eliminate heat pumps' traditional shortcomings. In addition to improved operating characteristics at low temperatures, the heat output from modern heat pumps has increased, improving the comfort they deliver. Equipment reliability and lifespan also have been improved. As heat pump technology continues to advance, conventional heat pumps will be a growing threat to the propane heating market.

This report was commissioned by the Propane industry to analyze why Propane and Methane/Natural Gas are in decline nation-wide

Page 13 Explains that heat pumps are to blame