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WPGA Comments on 2025 Energy Code ACM

Please see the attached letter.

Additional submitted attachment is included below.



1107 9TH ST, SUITE 540, SACRAMENTO, CA 95814 P: (916) 447-9742 | F: (916) 447-9740 WESTERNPGA.ORG | USECALIFORNIAPROPANE.COM

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California Energy Commission 715 P Street Sacramento, CA 95814 VIA ONLINE SUBMISSION

RE: CEC 2025 Energy Code Alternative Compliance Manual, Dkt. 24-BSTD-03

The Western Propane Gas Association (WPGA) submits the following comments on the 2025 Energy Code Alternative Compliance Manual (ACM). Our comments are an abbreviated version of the letter we submitted on the 2025 BEES September 6, 2024. The focus of this letter is that dual-fuel systems should be considered as part of the ACM, as they maximize energy efficiency and minimize energy waste.

Not considered in the 2025 BEES is that of dual-fuel heating systems. There are hydronic heating appliances currently on the market that maximize energy efficiency and minimize energy waste to the benefit of consumers. Using proprietary performance data of dual-fuel systems provided by Rinnai America, a manufacturer of space and water heaters, an analysis was conducted to understand the impacts of a high-efficiency system under the 2025 BEES.

Data from this manufacturer shows that compliance with the 2025 Building Code Standards, in its current form, could be met with hydronic heating using propane in dual-fuel systems. Based upon technical data from ConSol's analysis, we believe that the CEC should formally recognize the benefit of hydronic heating systems to meet 2025 Energy Code requirements for climate zones 1, 2, 11, 12, 13, and 16, that benefit the most from the use of propane furnaces.

The next few tables¹ show the annual utility costs and the compliance margins, checking the comparative system performance. The conclusion being that the reduction in source energy from the max propane scenario to the hydronic one is significant enough that compliance is reasonably achievable under the 2025 Code. This is what the compliance performance and cost tables look like:

Original All Electric Scores 2025 Code CZ1 CZ2 CZ12 CZ13 CZ16 CZ11 18.25 13.61 14.12 11.98 13.42 17.08 LSC - Efficiency LSC - Total 27.26 22.67 21.78 21.01 20.61 25.64 Source Energy - Total 7.33 6.96 8.02 6.31 8.6 8.32 0 0 Peak Cooling 485 69 592 12

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¹ Analysis Provided by ConSol, using California Energy Commission provided CBECC-Res 2025.0.9 RV (1340), using 2100 sq. ft. prototype house, and published PG&E utility rate schedules available July 1, 2028.

98% Efficient Gas Hydronic	CZ1	CZ2	CZ11	CZ12	CZ13	CZ16
LSC - Efficiency	17.8	13.15	14.46	12.43	14.07	16.47
LSC - Total	27.9	23.16	22.97	22.19	22.08	25.94
Source Energy - Total	19.06	14.43	12.76	14.71	11.38	17.48
Peak Cooling	0	0	488	72	595	13

Max Propane System	CZ1	CZ2	CZ11	CZ12	CZ13	CZ16
LSC - Efficiency	25.15	18.04	18.25	16.4	17.13	22.32
LSC - Total	34.93	27.82	26.75	26.09	25.15	31.74
Source Energy - Total	26.9	20.09	17.48	18.2	15.49	23.97
Peak Cooling	0	0	493	72	600	13

The table below shows that, similarly to a home with a propane furnace, a dual-fuel gas hydronic system is also the more affordable option for homeowners, as opposed to an allelectric home in climate zones 1, 2, 11, 12, 13, and 16.

All Electric with Gas Hydronic

CZ	Propane Cost	Electric Cost	Total Dual-Fuel Cost	All-Electric Cost
1	\$982	\$842	\$1,824	\$2,879
2	\$982	\$591	\$1,573	\$2,321
11	\$1,153	\$487	\$1,641	\$2,081
12	\$769	\$635	\$1,404	\$1,741
13	\$1,191	\$408	\$1,600	\$1,897
16	\$945	\$758	\$1,702	\$2,615

Utilizing dual-fuel technology can be beneficial to both the utility and consumer. Such products can switch from electric to gas during times of crisis like Public Safety Power Shutoffs (PSPS) and other emergencies to reduce burden on the grid. Dual-fuel appliances can be a solution to protecting consumer cost and energy reliability, while balancing electric demand for utilities.

The Western Propane Gas Association continues to work with manufacturers in pursuit of well-rounded performance data for comparative means and various options for consumers to utilize clean fuels of the highest efficiency and quality. WPGA supports the state in meeting its energy, housing, and climate change goals.

Sincerely,

Krysta Wanner

Director of Government Affairs, WPGA

krysta@westernpga.org