

Submitter: Brian Lee

On Behalf Of:

Committee: Senate Committee On Energy and Environment

Measure, Appointment or Topic: SB685

I write in favor of SB 685 Hydrogen Blending Oversight and Public Notice. The net heating value of methane (910 BTU/ft³) and hydrogen (275 BTU/ft³) differ significantly such that unregulated blending can significantly reduce gas appliance efficiency.

https://www.engineeringtoolbox.com/heating-values-fuel-gases-d_823.html

While many appliances (furnaces, boilers, stoves, dryers, etc.) can be modified or replaced for different heat content mixtures, this would entail significant cost to consumers and businesses, especially when the heat value of the mixture is beyond the manufactured design of the appliance.

Hydrogen is relatively corrosive to metals, which shortens lifespan for piping and appliances, and increases the potential for leaks. Metal embrittlement is an additional concern with hydrogen.

<https://www.sciencedirect.com/science/article/pii/S266726692200010X>

https://en.wikipedia.org/wiki/Hydrogen_embrittlement

Further concerns regarding hydrogen - methane gas mixtures are noted by

<https://www.foodandwaterwatch.org/2023/04/18/hydrogen-fuel-switching/>

"Why Dirty Energy Companies Want Hydrogen in Our Homes" by Oakley Shelton-Thomas & Mia DiFelice, Apr 18, 2023.

Please support SB 685.

Sincerely,

Brian C. Lee, PhD DABT