



STATE OF WASHINGTON
DEPARTMENT OF HEALTH
OFFICE of ENVIRONMENTAL HEALTH and SAFETY
PO Box 47824, Olympia, WA 98504
(360) 236-3330 • 711 Washington Relay Service

June 15, 2022

Re: Ventilation proposals 062 and 063

Dear Kjell Anderson,

In consideration of public health protection across Washington State, **we urge the Mechanical, Ventilation and Energy Committee to reconsider the proposed ventilation proposals (062 and 063) that would increase ventilation requirements when gas stoves are installed in new homes.** Doing so is critical to protect public health especially in Washington's most vulnerable communities. Methane gas in buildings poses serious risks to our health and our communities and runs counter to our climate commitments as a state.

Homes and buildings are now the largest source of toxic air pollution in the U.S. - linked to a greater number of premature deaths in 2018 than either the power or transportation sectors.¹ Gas burned in space and water heaters emits fine particulate matter (PM_{2.5}), nitrogen oxides, carbon monoxide, formaldehyde and other volatile organic compounds (VOCs) into the indoor environment that impede lung function, cause respiratory damage and asthma symptoms, and lead to cardiovascular illnesses.²

The ventilation proposals at stake are of critical importance because children are particularly vulnerable to the impacts of indoor air pollution from gas appliances. Children growing up in homes with gas stoves can experience a 42 percent higher risk of developing asthma symptoms and a 24 percent higher lifetime risk of an asthma diagnosis.³

Low-income and historically marginalized communities face an even greater risk. Inadequate ventilation and smaller living spaces contribute to higher concentrations of pollutants in lower income multifamily buildings (79 Adamkiewicz et al). A study of public housing apartments showed improved health

¹ Dedoussi, I.C., Eastham, S.D., Monier, E. *et al.* Premature mortality related to United States cross-state air pollution. *Nature* 578, 261–265 (2020). <https://doi.org/10.1038/s41586-020-1983-8>

² WHO, 2010: WHO Guidelines for Indoor Air Quality: Selected Pollutants. 484 pp., World Health Organization, Geneva. https://www.euro.who.int/_data/assets/pdf_file/0009/128169/e94535.pdf

³ Weiwei Lin, Bert Brunekreef, Ulrike Gehring, Meta-analysis of the effects of indoor nitrogen dioxide and gas cooking on asthma and wheeze in children, *International Journal of Epidemiology*, Volume 42, Issue 6, December 2013, Pages 1724–1737, <https://doi.org/10.1093/ije/dyt150>

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outcomes in residents who moved from conventional apartments to those with electric heating and cooking, correlated with reductions in $PM_{2.5}$ and NO_2 .⁴ Ideally, new homes are built with clean electric technologies, but if builders choose to install gas stoves, we need to ensure that new homes have adequate ventilation to protect people from the harmful impacts of methane gas.

The proposed changes to the code would have the benefit of dramatically reducing new contributions to this health, economic and racial justice issue.

We urge the Mechanical, Ventilation and Energy Committee to please move to protect children's and community health by requiring adequate ventilation where gas stoves are installed in new homes.

Respectfully,

A handwritten signature in black ink, appearing to read "TP" followed by a stylized flourish.

Todd Phillips, R.S.

Director, Office of Environmental Health & Safety

⁴ Meryl D. Colton et al., "Indoor Air Quality in Green Vs Conventional Multifamily Low-Income Housing," *Environmental Science & Technology*, 2014, p. 7837, <https://pubs.acs.org/doi/10.1021/es501489u>.