

To: Mayor Graham and Council

From: Gary Shaff

Date: June 5, 2023

RE: Agenda Item VI.2 - CEPAC: Greenhouse Gas Emissions Recommendations

Introduction

I'm a member of the Climate Environment Policy Advisory Committee (CEPAC).

I was the only CEPAC member to vote against the CEPAC's recommendation on the regulation of emissions from natural gas in new residential construction. I did so because the proposal does not address particulate pollution; a potent greenhouse and environmental pollutant. Listed below are several references explaining why it is critical that the city regulate particulate pollution emissions (i.e. prohibit the use of wood stoves and fireplaces) in new residential construction.

The facts demonstrate and logic would dictate that any regulation focused on reducing the adverse effects of new residential construction on climate and human health would include wood-fired appliances and fireplaces.

Just the Facts

"Thousands of medical studies have proven beyond any doubt that air pollution causes or exacerbates virtually the same entire list of health outcomes as cigarettes do — heart attacks, strokes, asthma, pneumonia, high blood pressure, shortened life expectancy, chromosomal damage, Alzheimer's, every kind of pregnancy complication, still births, and even sudden death.

But all air pollution is not created equal. Wood smoke is the most toxic type of pollution in most cities, more dangerous than auto pollution and most industrial pollution. Lighting a wood fire in your house is essentially starting up your own mini-toxic waste incinerator.

Wood smoke is unique in containing high concentrations of dioxins and PAHs (polycyclic aromatic hydrocarbons), probably the most toxic components of air pollution. Burning 10 lbs. of wood for one hour releases as many PAHs as 35,000 packs of cigarettes. The lifetime cancer risk is 12 times greater for wood smoke compared to an equal volume of secondhand cigarette smoke. Toxic free-radical chemicals in wood smoke are biologically active 40 times longer than the free radicals in cigarette smoke.

The very small size of particles in wood smoke make them seven times more likely to be inhaled than other sources of particulate pollution. For the same reason, wood smoke easily penetrates homes of neighbors creating concentrations indoors up to 88 percent as high as outdoor air. If you smell wood smoke, you know you are being harmed. The sweet smell comes from deadly compounds like benzene. Once you can smell the smoke you know the concentration of particulate matter is dangerously high. The most toxic components of air pollution are much

higher inside homes that burn wood than the homes of non-burners, as much as 500 percent higher.

Wood smoke is the only pollution emitted right where people spend most of their time, at home. It disperses poorly, is not evenly distributed and stays in the air longer because of its small size. Pollution can be 100 times higher for neighbors of wood burners than what is captured at the nearest monitoring station. If your neighbor is a regular wood burner, and follows all the rules, you can go an entire winter without having one single day of clean air. Local “wood burning victims” have their health jeopardized and their lives shortened, even when overall community pollution is low.”

<https://www.times-standard.com/2017/08/05/burning-firewood-is-an-airborne-public-health-hazard/>

“Oregon Department of Environmental Quality data released Wednesday (Jan. 15, 2020) shows 12.8 million pounds of particulate pollution matter are released into Oregon’s air by woodstoves and chimneys each year. Annual particulate matter levels emitted from wood smoke are close to that of a wildfire, DEQ’s Susan Mills said.” <https://www.opb.org/news/article/oregon-deq-data-woodstove-air-pollution-wildfires/>

“In Portland’s Multnomah County, after a series of meetings on woodsmoke pollution in the summer and fall of 2021, a coalition of local, county, and state organizations recommended the county curtail the use of even EPA-certified wood stoves. In addition to doing this, last month, officials in Oregon issued Multnomah County’s fourth-ever burn ban, and announced that bans could be instituted year-round, rather than just in the fall and winter.”

<https://undark.org/2022/03/02/wood-burning-stoves-raise-new-health-concerns/>

Conclusion

Please instruct the CEPAC to explicitly include particulate pollution in future drafts of greenhouse gas emission reduction ordinances.