

Dear Chair Leiber and committee members:

I am submitting this testimony in favor of SB 1518 Adding an Adoptable Reach Code Standard for municipalities.

I'm gravely concerned as a physician and as an advocate with Physicians for Social Responsibility for the last 30 years in my efforts to address climate change. The climate impacts I presented decades ago are now occurring, more frequent floods, wildfires, heat domes and loss of snowpack. As chair of the Environmental Caucus of the DPO, I've spoken with people across the state of Oregon last fall who identify lack of water as their major concern as an impact of climate change. There are many ways to address this, but one that will certainly do so, is to reduce Greenhouse gas (GHG) emissions from our buildings both commercial and residential.

This bill calls for the same methodology in creating the Reach Code as is currently used in creating the standard building code. This allows experts in the building trades, builders, developers, climate change experts, city planners and code enforcers, and more to have input on a wise building code that evaluates all aspects. The bill makes this extremely clear. Changes or amendments to the Reach code must follow the same protocols for amendment as is used for the standard building code. Just like recalling a car when an error is found, there is a methodology (ORS 455.030) to add amendments to the code, both Standard and Reach if such problems arise. What this means is that cities must comply with the standard code, or they may adopt the Reach Code as the required code in their jurisdiction. This does not "undermine" workers or safety standards as I heard stated in testimony yesterday as these are all considered at the state level before the code is finalized.

The companies supplying natural gas are concerned that there will come a time when gas lines will not be allowed to new buildings or in major reconstruction as is happening in Colorado and California. They of course recognize that as a threat to their business model. Yet natural gas (methane) is a greenhouse gas. When burned for electricity, it produces half the carbon dioxide as coal for the same electricity generation. However, it is a gas and therefore leaks at the mine, leaks from pipelines, and leaks or is released on purpose from compressor stations to maintain pipeline pressure. Methane is 86 times as potent at driving atmospheric warming compared to carbon dioxide in the first 20 years (IPCC). It breaks down into molecules of carbon dioxide and water vapor over time and is still 20 times as potent after 100 years. It is estimated by researchers at Cornell that a leak rate must be less than 2.8% not to exceed the climate impacts of burning coal when comparing electricity production between these two fuels. This is a hard rate to achieve and is a major reason we are not seeing natural gas buses anymore which leak even more.

Burning methane in the home is also a threat to health. Studies of gas leakage in several major east coast cities revealed several leaks at risk of explosion requiring immediate repair. Fixing routine or small leaks is not economically feasible so there is no routine evaluation of leaks within cities by the gas companies. Burning gas in our stoves and furnaces release carbon monoxide a toxin requiring detectors in the home. This is worse if the systems are not well maintained, and significant production occurred in 10% to 30% of homes in Denver with low-income homes having the highest rates. It causes headaches and confusion and is harmful to the fetus. In addition, furnaces must be vented up a chimney. Stoves however burn in our kitchens and are not as adequately vented, if at all. Combustion releases nitrous oxides that reach levels that exceed outdoor EPA standards for cooking times as little as one hour. Children raised in homes with gas stoves had a 32% higher lifetime expectancy of asthma. One study by Rocky Mountain Institute showed that building without gas is cheaper on average by \$8000.

The gas companies claim they will supply renewable natural gas, but even if we harvested all the landfills and manure treatment of humans and livestock it would not meet much more than 30% of current demand, not increased demand.

You heard testimony as well that we must have a system of back up due to the potential for failure of our electricity system. Well, 30% of all our home stock is currently heated electrically. The answer to that is to improve and protect as well as decentralizing our electric grid.

Thank you for the opportunity to testify in favor of this bill.

Catherine Thomason, MD  
6201 NE Oregon St.  
Portland, OR 97213  
503-819-1170  
Thomassonct@gmail.com