

Testimony to State Building Code Hearing – June 17, 2022

I am Willard Westre, a retired Aerospace Engineer. Since retirement I have studied Climate Science. I have also retrofit my home to zero emissions through efficiency measures, conversion to a heat pump, and installation of solar panels with sufficient capacity for both the home and an electric car.

Science is the most important consideration in deciding what the building code should be. Climate Science is immensely complex, but the root cause of climate change is easy to explain. The temperatures on earth have remained basically constant for the past 800,000 years allowing life and civilization to develop. The earth is heated by radiation from the sun and cooled by radiation to deep space. These have historically been balanced, but that is no longer the case. In our time the cooling part is being partially blocked by the 50% increase in greenhouse gases that have been added to the atmosphere by our fossil fuel emissions. This has already locked the planet into a perpetual exponential temperature increase that continuously accelerates climate change, leading eventually to the destruction of all life on the planet.

Scientific modeling indicates this can still be reversed by reducing our current emissions to zero by 2050. If we don't add any new emissions to the atmosphere, it will allow the greenhouse gasses already in the atmosphere to slowly dissipate. If we don't, the GHG's already in the atmosphere will continue to accelerate climate change, perpetually.

Unfortunately, we have only a tiny window of time before secondary effects of climate change prevent us from achieving zero. The polar regions of the planet are heating up the fastest, causing rapid melting of the ice caps. In the northern hemisphere the Arctic Ice cap is surrounded by a huge belt of permafrost which is now starting to melt, releasing massive amounts of GHG's previously sequestered for many centuries. That tiny window to put us on a trajectory that gets to zero in 2050 disappears in only a few years – perhaps less than 5. We must respond with unprecedented urgency to prevent an unconscionable result.

This means we need to block new emission sources immediately and focus on rapidly retrofitting our built infrastructure. Therefore, I strongly recommend approval of the most aggressive amendments to the building codes.

Thank you for the opportunity to comment,

Willard Westre

Union of Concerned Scientists

15704 SE 44th St, Bellevue 98006

wwestre@hotmail.com