

## Howard, Jeff (DEEP)

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**From:** Gary Bent <gdbent@earthlink.net>  
**Sent:** Tuesday, July 14, 2015 9:32 PM  
**To:** DEEP ClimateChange  
**Subject:** CT climate change council

I attended the first meeting on July 10. I was encouraged by the number of people on the council and that obviously there is a plan to get things done. I was surprised that the Commissioner of Public Health was not on the council. Certainly one of the issues should be air quality and the degradation of people's health that comes from emissions from coal-fired power plants; however, natural gas when it leaks or is vented is a health risk, producing ozone and formaldehyde.

The slide in the powerpoint presentation showing the reduction in greenhouse gas emissions is probably misleading. I assume the emissions from natural gas, oil, and coal comes from the carbon dioxide that each emits when burned. Is the CO<sub>2</sub> equivalent of methane leakages included? I don't believe it is. K. McKain et al., "Methane emissions from natural gas infrastructure and use in the urban region of Boston, Massachusetts," *Science* **112**, 1941-1946 (2015) measured methane emissions in the Boston area and found that 64% of them come from natural gas transmission lines, distribution lines, and compressor stations. In their supplemental information, they also used state and Federal data to estimate the methane emissions in Connecticut, Massachusetts, and Rhode Island. Again they found over 60% of the methane emissions coming from natural gas infrastructure. Their data show about 9,000 MT of CH<sub>4</sub> comes from natural gas leakages in Connecticut. If the global warming potential (GWP) of 86 over a 20 year period for methane is used, this corresponds to about 1 MMT CO<sub>2</sub>e. Thus 1 MMT CO<sub>2</sub>e should be added to the natural gas bars on your slide.

You should not refer to the EPA inventory of greenhouse gases and estimates of natural gas leakages. Several recent scientific studies besides the McKain et al. study have found that the EPA estimates are very low compared to what is actually measured. The inspector general of EPA has also criticized their methodology for estimating natural gas leakage.

Sincerely,  
Gary Bent  
Mansfield, CT  
Retired physicist