

Public hearing testimony, House Energy and Technology Committee, 4/23/19, with sources

Re: Bills H.51, H. 175, H. 214

My name is Brian Tokar, I live in East Montpelier. I am a Lecturer in Environmental Studies at UVM, and the author of several books on environmental topics, most recently *Toward Climate Justice* (New Compass Press, 2014).

I will cite three reasons for the committee to pass all 3 bills: the magnitude of the climate crisis; the climate hazards of continuing natural gas use; and the likely very short lifespan of any future fossil fuel investments

First, with climate disruptions increasing worldwide, it is simply immoral to allow any further increases in fossil fuel use. US per capita use is still the highest in the world and Vermont's emissions are rising. It's time to say no to any further expansion.

Second, you've heard about the heightened climate impacts of methane releases. In the early 2010s, the Environmental Defense Fund began investigating methane leaks from natural gas infrastructure with the hope of advising the gas industry on how to be more sustainable. Instead they found that methane leakage – from fracking sites to local distribution networks – was a far more systemic problem than previously imagined.

Numerous scientific papers have since documented that methane leakage from gas infrastructure is a leading contributor to climate disruption. In the near term – which is what matters most – methane has about 85 times the climate impact of CO₂. So it doesn't matter so much that emissions from *burning* natural gas are somewhat lower. Expansion of fossil fuel infrastructure has to stop, including any new power plants, as recommended by Jim Dumont in his testimony to this committee.

Third, and this is much newer research: renewable energy is now trending cheaper than fossil fuels, including gas, at such a fast rate that a rapidly growing number of facilities are likely to become “stranded assets,” essentially worthless in the not too distant future. This is documented in a recent report that is cited below.

The best way to assure that we don't have Vermont Gas and other companies coming to us in a few years seeking bailouts for infrastructure they can no longer use is to stop their expansion now. We can secure enough sources of genuinely renewable energy, locally and from neighboring states, to keep energy costs down, electrify

more of our transportation system, and move toward a modern, efficient and renewable energy system.

I hope these bills will advance to the House floor as quickly as possible, and become the highest priority to pass the legislature and be signed by the governor as soon as possible.

Some Recommended Sources:

Methane leakage from fossil fuel infrastructure:

R. A. Alvarez , et al., “Assessment of methane emissions from the U.S. oil and gas supply chain,” *Science* Vol. 361, pp. 186–188 (2018).

J. Tollefson, “Methane leaks erode green credentials of natural gas,” *Nature* Vol. 293, p. 12 (2013) (news article).

A. J. Marchese, et al., “Methane Emissions from United States Natural Gas Gathering and Processing,” *Environmental Science and Technology* (pub. by the American Chemical Society), Vol. 49, pp. 10718-10727 (2015).

E. Kintisch, “ Hunting a climate fugitive,” *Science* Vol. 344, pp. 1472-73 (2014) (news article).

Stranded assets from new fossil fuel infrastructure:

K. Bond, *2020 vision: why you should see peak fossil fuels coming*, London: Carbon Tracker, 2018, via www.carbontracker.org/reports/2020-vision-why-you-should-see-the-fossil-fuel-peak-coming.

A brief summary is available at <https://www.carbontracker.org/fossil-fuels-will-peak-in-the-2020s-as-renewables-supply-all-growth-in-energy-demand/>.

Author: Kingsmill Bond has worked as a sell-side City of London equity analyst and strategist for over 20 years, including for Deutsche Bank, Troika Dialog and Citibank in London, Hong Kong and Moscow.