



May 4, 2017

**VIA ELECTRONIC MAIL**

Governor's Council on Climate Change  
Email: [deep.climatechange@ct.gov](mailto:deep.climatechange@ct.gov)

**RE: Comments of the Sierra Club to the Governor's Council on Climate Change**

Dear Members of the Governor's Council on Climate Change:

On behalf of the Sierra Club and its more than 36,000 members and supporters in Connecticut, thank you for the opportunity to provide comments regarding the April 13<sup>th</sup> meeting of the Governor's Council on Climate Change (GC3). After months of very important and informative discussion of the transportation sector, we are excited to switch gears with the GC3 and focus on buildings. Data previously presented to the GC3 shows that in addition to greater levels of energy savings through efficiency, a major focus needs to be on transitioning both oil and gas heating to clean electricity through the installation of high efficiency heat pumps. According to that modeling, an average of nearly 25,000 efficient heat pumps needs to be installed annually through 2050 on the residential side alone.<sup>1</sup> Therefore the Council should recommend the administration remove barriers, and adopt incentive programs for customers, to install new systems.

**The GC3 should recommend new programs necessary to encourage customers to switch to high efficiency heat pumps, starting with inefficient electric or oil systems**

As discussed at the April 13<sup>th</sup> meeting, the Yale Center for Business and the Environment recently partnered with the Connecticut Green Bank, Eversource, United Illuminating and the Department of Energy and Environmental Protection (DEEP) to release multiple reports on the market potential for, barriers to, and drivers of renewable thermal technologies in Connecticut.<sup>2</sup> There are flaws in the assumptions and methodology for the report. Most notably, the assumed "coefficient of performance" for an air source heat pump was only 2.0, likely an outdated assessment as current technology performs much better (as high as 3.5).<sup>3,4</sup> However the reports still provides some data for the GC3 to consider.

The reports emphasize that existing inefficient electric and fuel oil systems are the least economical and most polluting heating options in Connecticut, and customers with those systems should be particularly encouraged to convert to efficient heat pumps. Second, there may be an opportunity to drive change through building codes and other standards. Finally, the analysis

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<sup>1</sup> [http://www.ct.gov/deep/lib/deep/climatechange/gc3/gc3\\_mitigationwedges\\_09\\_08\\_2016.pdf](http://www.ct.gov/deep/lib/deep/climatechange/gc3/gc3_mitigationwedges_09_08_2016.pdf)

<sup>2</sup> <http://cbey.yale.edu/programs-research/feasibility-of-renewable-thermal-technologies-in-connecticut>

<sup>3</sup> [http://www.neep.org/sites/default/files/NEEP\\_ASHP\\_2016MTStrategy\\_Report\\_FINAL.pdf](http://www.neep.org/sites/default/files/NEEP_ASHP_2016MTStrategy_Report_FINAL.pdf)

<sup>4</sup> [http://aceee.org/files/proceedings/2016/data/papers/1\\_700.pdf](http://aceee.org/files/proceedings/2016/data/papers/1_700.pdf)

demonstrates that additional incentives, including rebates for heat pumps and pricing carbon pollution from heating fuels, are likely needed to fully realize the potential and necessary level of conversions to reach Connecticut's climate goals. The GC3 should therefore recommend such programs, noting that pricing carbon pollution could provide a revenue stream for incentives.

**The GC3 should recommend that DEEP and the Public Utilities Regulatory Authority (PURA) end utility programs to subsidize gas conversions**

Since it is clear from the modeling shared with the GC3 that renewable thermal technologies such as heat pumps must ultimately replace gas for heating needs as well, any money spent by Connecticut ratepayers to convert heating systems to gas at this point is wasteful. Any programs going forward, including those recommended by the forthcoming Comprehensive Energy Strategy (CES) should instead focus on energy efficiency and renewable thermal technologies. Connecticut's electric companies should be allowed and encouraged to offer incentives to switch to high efficiency heat pumps and other renewable thermal technologies, using a broad social benefits test when looking at the cost effectiveness of such programs.

Thank you for your consideration.

Respectfully submitted,



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