

Senate Committee on Natural Resources and Energy

April 6, 2022

Dear Senators,

I am writing as an economist with more than a decade of international policy experience in more than a dozen countries, and a D.Phil. in economics from Oxford University (UK). I also founded a solar company in Vermont 15 years ago, and was born and raised in Rutland, VT.

I have a keen concern about the future of our climate, and that is the entire reason that I started a solar company. However, as an economist, I strongly object to the Clean Heat Standard as proposed. One of the primary outcomes will be widespread adoption of heat pumps. In the long run, we will need to electrify thermal and transportation needs. However, given current Vermont policy towards the electric sector, an installation of the most efficient heat pump will, at best, cut carbon emissions by 18% compared to burning propane for heat at a house in Vermont, and for less efficient heat pumps (including many of the popular mini-split systems) the carbon emissions will actually increase by up to 36%. The actual impact upon the atmosphere is likely even worse than this. I am submitting a detailed and technical spreadsheet and White Paper explaining these calculations and the logic behind them.

As a strong climate advocate, I urge you to vote against the Clean Heat Standard. Instead, we need to stop pretending that 20<sup>th</sup> century generation (for Green Mountain Power, 50 year old nuclear plants and 40 plus year old hydro facilities comprise 97% of their energy portfolio) changes anything for the climate. If nothing new is built, nothing changes. Vermont needs to accept that we need to build a massive quantity of solar and wind. Hydro-Quebec is not a solution, nor is off-shore wind a solution. Doing anything less dooms our children and grandchildren to a challenging future.

Best regards,

Bill

Bill Bender  
President  
Solaflect Energy  
bbender@solaflect.com