**Dear Climate Council, RE: The Importance of Negative Carbon Emissions**

One way to help make America great again is to create green jobs for all kinds of Americans, including immigrants. We are a nation of immigrants and their children after all. The other way is to stand up for free and fair elections. Civil rights and climate justice will only come hand in hand.

Vermont’s GWS Act is all about reducing CO2 emissions but deliberately avoids active removal of CO2 from air, perhaps because it is considered too costly and other misapprehensions cited below. Ideally though, CO2 reduction should come hand in hand with active removal of CO2 from the sky simultaneously and profitably. Reports from the IPCC and COP26 suggest that reduction without removal is like digging a hole in the sky and filling it again. The missing ingredient that Gov. Scott and local utilities can bring to the table is a profitable plan for CO2 removal. Central plants can now be transformed in two stages into negative emission, power & storage stations that reuse CO2 for supplemental fuel and make other synfuels and products, i.e. plastic, concrete, graphene and carbon fiber. Besides, central storage is vital to back up the rapid growth of intermittent distributed renewables and electric cars.

Unfortunately, many environmentalists have thrown the green baby out with the green washing. Progressives and Democrats alike do not trust ‘CO2 Capture’ scenarios to save climate for fear of green washing by fossil companies who make no secret they want to capture CO2 emission to frack for natural gas or for enhanced oil recovery (EOR). Greens view EOR as evil, oily and regressive, as do I. Wouldn’t it be all too convenient to claim carbon offsets while pushing more oil & gas out of the ground and more CO2 into the atmosphere?

Obviously, we should reject the misuse of CO2 chemistry to green wash EOR and fracking by oil & gas companies. Instead, let’s apply the new chemistry by design to reduce CO2 emission and remove CO2 from air simultaneously. In a similar vein, the diesel engine was invented to run on peanut oil and other biofuels including hemp biodiesel. Think what a different world it would be if that had become the norm. Both Ford and Diesel liked industrial hemp to make biofuels, car parts and other products before a flood of cheap oil washed over them.

This essay covers main points from a ‘CO2 Reuse’ research summary written for the Renewable Nations Institute (RNI), posted under ‘Comments’ on the Council website. It advocates for the profitable renovation of central plants - including VT’s wood plants and Vermont Yankee - to make them ‘carbon neutral’ first and then ‘carbon negative’ in two stages within ten years. Over sixty articles, lab reports and links are cited on a) how best to capture CO2 and b) how best to catalyze CO2 into synthetic fuels and feedstocks. If said fuels and feedstocks are responsibly utilized, then negative emissions can be actuated, monitored and validated at utility scale. The overall plan is to replace fossil fuels with a mix of efficiency, wind, solar, storage, synthetic fuels made from CO2 and biofuels made from industrial hemp and other, sustainably cultivated biomass. VT farmers and most farmers need new cash crops.

To sum, recent advances in chemistry and agriculture can now be harnessed for large-scale, sustainable agriculture for food and fuel crops and to replace fossil fuels completely. Likewise, new ways to irrigate deserts beacon to us. Greening deserts is essential to cool climate and feed the world. Monoculture agribusiness can give way to highly diversified farming interspersed with wilderness reserves that nurture birds and bees. Let Einstein’s warning about the bees be our guide. Imagine if Monsanto were a benevolent company that actually supported diversity and sustainability instead of championing their own maniacal, monopolistic, monoculture plot to corner the world wheat market. It remains to be seen that Bayer, their new owner, will set a new course.

To close, here is some good news on the cost of CO2 Capture from DOE’s Pacific Northwest National Laboratory. In a new study published last March, reviewed by Robert Service in Science Magazine, the PNNL team reported that their new EEMP solvent can absorb CO2 from flue gas and release it as pure CO2 for as little as $47.10. That number brings us within arm’s reach of cost effective CO2 Capture. Governor Scott and The VT Climate Council should be actively investigating these matters with an eye toward repurposing VY and VT’s two wood plants into negative emission plants. Though small, 30 & 50 MWs, these two wood plants put out over 600,000 metric tons of CO2 per year. Or they can be profitably retrofitted to remove most of that amount from the sky, thereby making a combined difference, for the good, of over one million metric tons or over one tenth of VT’s yearly CO2 emission.

COP 26 is in trouble. The Council needs help. Governor Scott should come to the rescue with a profitable plan to remove CO2 from the sky and to set a good example to the nation, the world and Joe Biden too.

 By Jim Hurt, Woodstock, 11/16/21