## David:

Please excuse this late comment. I was in California for a family funeral last week, and could not get this comment to you in a timely fashion.

I suggest that NYSERDA add to its research agenda a very promising oil heating technology for residential and small business applications. Bear with me, because the story may seem a bit odd. Twenty-six years ago, I did a research project for Volkswagenwerk AG, the parent company of car manufacturer Volkswagen. The project was to develop a marketing plan for an oil-fired heat pump designed for hydronic heating systems. VW had produced a hundred or so prototype units and installed them in Germany and Austria, where they reduced oil consumption about 70%, without waste heat recovery. When we looked at the US market, we determined that the unit first cost (about \$8,000) was too high and that the oil heat industry was not equipped to install and service the units, which were essentially Rabbit diesel engines driving compressors. So VW abandoned the project to import the units into the US.

It may be worth trying to find out what happened to this technology at a time when New York and other Northeastern states are beginning large-scale programs to make oil heated homes and businesses more energy efficient. The objections from twenty-six years ago may be less relevant in an era when residential and small business customers are making significant investments in energy technologies, such as renewables and CHP, that require sophisticated installation and maintenance capabilities. If the VW technology can be made workable in the US, it would be a huge step forward in oil heating efficiency.

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