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State of Vermont  
Department of Public Service

I recommend that you explore what it means to convert to Computational Energy.

As I recently posted to Facebook:

We are on the verge of a new model for energy: computational energy.

“The battery can be connected to Wi-Fi to get access to the cloud algorithm that provides the optimal discharge strategy to maximize savings and earnings from dynamic energy contracts,” Nagel said. “It considers solar radiation and consumption forecast, as well as electricity prices, in order to calculate the optimum time to charge and discharge.”

Further, given smart local storage, whether stationary or mobile, we need to ask a few new questions:

- 1) How do we optimize the system composed of renewable wind and solar + smart storage + grid services?
- 2) Is it best to maximize the amount of time off grid? Run on batteries and local generation as much as possible?
- 3) Minimize the amount of energy taken from the grid?
- 4) Maximize the amount of energy sent to the grid?

Additionally, we would do well to establish at least four new goals:

- 5] Reduce the cost of per installed watt of PV on residential properties to less than \$1.50
- 6] Establish a goal of 200 MW of new renewables per year for the next 15 -20 years. See Cadmus report on this topic.
- 7] Establish a goal to reduce the price of a kWh below 6 cents - certainly below the cost of transmission. Why pay for transmission if we can eliminate, or at least sharply curtail, the need for it? Why should citizens pay more than they need to?
- 8] Establish a state office that proactively supports and facilitates new renewable energy projects - especially community solar projects.

All of the above items will require that policies, incentives and codes be in alignment with these goals. This is not currently the case. Limiting a master electrician to just one apprentice,

for example, will make it nearly impossible to create the work force required to install 200 MW NEW renewable energy sources per year. So how do we change code to create the supply of electricians the new paradigm will require?

I note that the cross subsidy argument is false as it selectively ignores many other cross subsidies and externalities throughout the conventional grid system.

In a word, we need a NEW energy paradigm for our new century with its climate emergency. The conventional grid will, for purely economic reasons, go the way of conventional dairy farming in VT.

We can fight these changes and insure the collapse of a reasonable environment or we can embrace these changes to create exciting new opportunities on many levels across the state.

Regards,

Jock

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Electrify & Decarbonize Everything!