Clean energy is closer than you think!

In 5.7 hours the areas in the Sunbelt of the earth receive as much energy as the whole world uses in a year. The potential of solar energy is several hundred times the amount of energy we will ever need. All of the fossil fuel reserves that we know of, which are dirty and are going to run out, have the same energy as the sun provides us in 50 days.

The sun is the solution to our power woes, even right here in New England. It is the sun that drives the ocean currents, and makes the winds blow. The sun provides energy for photosynthesis to grow our food, feed our livestock, and grow forest. It is the sun that provides light and heat that drive the ocean currents, causes evaporation and all atmospheric conditions; rain, snow and clouds.

Right now, the PV (photo-voltaic) solar technology is progressing rapidly and production is ramping up. The cost per watt is between $4.50 and $4.85 - while this might seem like more than oil or gas, PV energy is clean. With mass production, the cost is expected to fall below $2.00 per watt. Besides, the cost of oil does not include the follow-up costs of climate change, pollution and all of its devastating health effects, so solar energy is really already competitive compared to fossil fuels.

You have to remember, coal is cheap because the coal industry does not pay for clean up or mercury pollution or mud slides, to name a few "externalities". But, they do put a lot of money into politics. Oil is cheap because your taxes are paying for 3 fleets in the Arabian Sea. PV is much cheaper than either because there are no hidden costs only benefits. No wars will be fought over solar power.

Yes, our power grid is over burdened, and the way we use and generate electricity requires a change. However no infrastructure improvements that we can make will address the issue of stability or capacity for more than twenty years. All projections for growth are based on twenty to twenty five year cycles, building our way out of this mess with more power plants and bigger wires in insane. The power grid is not the problem; our centralized power production is the problem.

If every big box store, warehouse roof, large parking lot, home and school (with a sunny exposure), were to add PV generation arrays, we would have in place a distributed generation resource that could eliminate the need for new power plants, and makes us more secure from acts of terrorism or mother nature.

This resource would produce electricity for free (minus investment) every sunny day for over 50 years. PVs produce no green house gas, no pollution, no radiation, are very quiet and have no moving parts. They are most efficient on clear cold days, producing the most electricity when the sun is highest (mid-day) which will offset the peak (air conditioning) needs of our region.

Adding to the mix of power production should be a healthy amount of solar domestic hot water, space heating and day lighting. Day lighting is a technology that lets sun light in to the indoor space, to offset the electrical needs of interior lighting.

While were at it, let us bring back another Vermont tradition – Hydro Power. At one time Vermont was almost entirely run on hydropower. Bringing back some of the offline hydro plants and creating new hydro plants will round out our energy portfolio. All of these mature technologies will offset the electrical demands in our area, and eliminate the need for more power plants or bigger wires while providing really exciting jobs that will boost our economy by keeping money in Vermont.

Green Power from Vermont could be a hot commodity, as we become a net energy producer for New England. Exporting electricity out of state rather than struggling to keep up with demand.

Lets face it the energy we are using now is far beyond what our planet can sustain. This issue is not just about changing light bulbs, but also about a commitment to a new future of responsible and sustainable energy usage.

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