

Meanwhile Back in the Jungle
December 2013

Photosynthesis produces green plants, the food we eat and long ago the coal, oil and gas we burn.

One hundred and thirty years ago we discovered photovoltaics, electricity from sunshine, and in the last decades have advanced the manufacturing of clean, odorless, silent, ageless panels. Conversion of the sun is at least ten times as efficient as photosynthesis, a panel casting the same shadow as a man produces more power. Costs have plummeted and these 100 watts cost less than 100 dollars! Despite the wonders of photovoltaic electricity. There are problems with storage. Electricity from photovoltaics wants to go to work immediately it can not wait as does organic matter from photosynthesis. To use photovoltaics effectively wire it to tasks when the sun shines, reduce the need for batteries. We are accustomed to photosynthesis which banks energy as the food we eat at our leisure or the coal, oil or gas burned on our schedule in power plants. Photovoltaics, unless their electricity is expensively stored in batteries can't wait, it has different manners. This is inherent to photovoltaics. People, indulged by our grid are accustomed to immediate service, they can't wait to receive. Photovoltaics can't wait to give and we have been trained to not wait to receive, yet there is no fit! This mismatch, like cultures at odds over manners can cause havoc. Can't something be worked out? Can't we realize that PV is not intentionally rude; photovoltaics are delightful if you don't ask them to wait. Unfortunately a ruse is promoted to avoid conflict in schedules an expensive self serving trick the smart grid to raise prices and serve the status quo. This struggle is familiar to anyone seeking freedom from an oppressive "protector." The

answer, going off grid and vastly reducing electric consumption is a set back for the utilities but not for their customers. The grid would even remain, if somewhat reduced. Many uses of the sun, often non-electric are amenable to its intermittency, heat can be stored for days in well insulated tanks of solar water heaters. Likewise heat for buildings, passive solar has been used throughout history by the aware.

These non-electric examples of the disregarded give an idea of our past acquiescence to a vigorous electric lobby. Photovoltaics without batteries pump water stored in a tank when the sun shines. Refrigeration is well suited to bypass expensive batteries for we can make ice endlessly. Air conditioning can likewise make ice when the sun shines. Drying can be done when the sun shines on the familiar but now forgotten clothesline. Washing machine, electric tools and other significant loads can wait for the sun. Nighttime electric lights, computers, TV and other small loads can easily be fed by batteries.

Electric usage has ballooned until our average American house consumes 30kwh of electricity a day, which would take at least 30 men on treadmills to produce. We have become electricals rather than mere mammals, refrigerators, television, washing machines and other uses of electricity are central to our lives. An odd sidelight is that as we use more we need less since electric devices have become more efficient. Most defeat this savings by buying more extravagant appliances. Can gluttony, be transformed into, wide spread satisfaction? The recent development of the inexpensive PV panel, one of mankind's greatest achievements, suggests it could.

Converting passive, indulged, consumers of the grid into thoughtful, self-reliant off grid citizens is an inevitable consequence of expanded awareness, it can be delayed but probably not prevented. Our energy use is complicated, controversial and different in different places. If going “off grid” is hampered in “developed” grid riddled America we need only remember this could happen elsewhere as in a line from a long ago song “meanwhile back in the jungle”, for the first may be last and last first in this energy transformation. South America, Africa and Asia will be powered by off grid solar. Europe and North America may cling to the grid. Americans with their independent traditions could best lead the way off grid even separating from the tangles of our grid. Adept at off road vehicles we could be equally successful with off grid power and we need the business! We must discuss this, not relegate methods to experts at the department of energy. (See their grotesque electric dominated Solar Decathlon!) Off grid houses can exploit non-electric traditional solar ways such as daylight and clothes lines.

We only notice solar where it impersonates fossil fuels, this misunderstanding is confused with progress. An equally peculiar modern habit is “pathological altruism” where a successful group miss directs effort best spent on itself to “helping” others. Life’s relationship to machinery may be similar and misunderstandings are equally destructive. How can we believe that world over we run on coal, oil, gas and a mere trace of solar where it impersonates fossil fuels? We notice energy only where it torques, burns or sparks. What about life? We forget life. As the altruist forgets himself.

If our future is to stretch ahead as our past does behind the extravagant burning of fossil fuels won't do. Go off grid to see how little electricity needs to be stored and how flexible working hours are. Instead of ignoring non-electric uses of the sun extend them! Rather than demanding the grid supply electricity day or night for our indulgence we see that heat, cool, dryness, ice, pumped water all can be stored from power generated by PV as the sun shines. We can be smart ourselves rather than wired to a smart grid.

The grid indulged surrender to convenience and proceed to become environmental scolds. Instead of joining the innovative and daring who experiment with new ways, as the better use of PV, they demand the difficult of others. Even though our CO₂ may be all that prevents an ice age they hang their nagging on its measurement. "Maybe a rise of 1°C in a century" while certainly our sun lifts us 290°C above zero. This is of little interest.

Could we not endure adding or subtracting 10°C? Should we not anticipate this? We already survived ice ages, ocean voyages, domesticated the camel, invented the atom bomb, once we were daring now we are to only be cautious? The naggers scold on and on about our atmosphere, 350 parts per million of CO₂. Tut Tut. Be glad for the 200,000 parts per million of O₂ that keeps us alive.

Better to worry about the treachery of the Patriot Act and Homeland Security than Global Warming. To slow the domination of a dangerous elite be thoughtful about use of our world changing PV panels. Think utopia, daring transformations of man.

This precious solar electricity must be guided by us not by them, by man, by our tribe not by others. We Americans have learned to not trust the state, its Solar Institute, its Department of Energy who enslave our best minds. Solar electricity is ours not theirs. The grid and utility proclaim familiar "revolutionary" Socialist propaganda, green, free,

renewable resource, smart grid, but the bills go up and up. In contrast competing off grid companies say the dull, conventional, private property, free enterprise clothes lines, solar water heaters, passive solar, save money and the bills don't go up.

We want electricity, refrigerators, washing machines, TV's, lights, microwaves, and computers. We are new; we are electricals, humans that use electricity. Our new ways don't grow on grids or power plants, they cling to us as we embrace our art, poetry, music, mathematics and now electricity. What is more secure many separate PV systems operated and defended by families and neighbors or a utility grid with giant wind farms, power lines and solar power plants guarded by our military as Don Rumsfeld guarded the Pentagon on 9-11?

The most important consequence of going off grid is replacing many convenient but unnecessary uses of electricity. These were earlier usurped by electric utilities squandering our precious coal, oil and gas. The propaganda of the renewable energy grid might promise the continued use of your clothes dryer but off grid who would increase his panels, batteries and inverter to avoid the shame of a clothesline? Who would omit windows to use PV panels and wires for light. Solar lighting, drying, water heating space heating can be supplied without tax credits and without research.

Unfortunately many poor but "revolutionary" ideas attract adherents. Discussion of off grid vs. grid tie is badly needed.

Our dogs, solar powered like us by food, are off grid, scattered among families, guarding homes and children, free of control by a K-9 Institute.