

**The Electric Leaf**  
**Sat 21 Dec 2013**

One hundred years ago photovoltaics were a curiosity, 30 years ago a specialty energy source for space satellites, remote telecommunications sites and irrigation pumps for dope growers. Today the panels are common inexpensive and made by the millions. The electric leaf's arrival is more than noteworthy, it will prove cataclysmic for it promises to change the world.

Anticipation of this solar power source has been so acute the influential have crowded out those who understand, such powerful interests have thoughtlessly installed their prototypes in fields, misguided, solar versions of their fossil fuel power plants.

This is typical, we do everything like that. First serve goes to those who won the last game, not to those who will win this one. Charles Lindbergh crossed the Atlantic in his airplane in 1927. Today, anticipating new heroes we expect another machine from the sky but instead get these silent, motionless, odorless, ageless, electric panels which can't even burn or explode! Last time a man at the controls of a gas powered machine flew over the ocean. This time nothing arrives to bounce on the runway, silent electricity from the sun is already here. When a society demands an "Energy Policy" it is too late, you can guess that whatever is not the way. Those humble enough to admit they don't know make way, when they don't adjust all is lost.

Everything in the past has been different, to control, dominate, centralize concentrate then distribute but not this. Diffuse, common silent non-flammable, ageless our winners from yesterday could not be more puzzled. Straining from their box seats they see nothing, the game goes on elsewhere. Electricity from nuclear energy? Yes, fusion no

less but the reactor is ninety three million miles away. Grids are to distribute but the sun already did that.

The military prepares to fight the last war, not the next, and so it is with Power when we ask for a national policy. What if we skip a war and a policy and go off grid? Off grid we can have many answers. Some might work. The grid has one shot and it is aimed at an old target.

Why does the USA use so much electricity? 30 kwhr per day for the average household. (We use about 6.) How can 30 kwhr per day fit with going off grid? It doesn't. We must use non-electric solar. Passive heating and cooling of the house, a solar water heater, a clothesline a well-insulated refrigerator, daylighting. Is going off grid un-American? Off grid, both making and using the power skips so much of our economy, marketing. Omitting marketing would be interesting.