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Subject: : Conservation

Topic: : WIND

Re: WIND

Author: : pcray1231

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URL:

biker,

As far as streamside generators, without a dam, yes, you could still make power, like a water wheel. But the power needed to manufacture the generator would be more than the generator would ever produce. To make the efficiency high enough that its worthwhile, you have to have enough potential energy, and divert a certain percentage of the water so that it has to go through the turbine (can't give it much room to go around the blades, cause it will). No, they need dams.

However, there are a number of existing dams that don't have hydro generators attached, and even on many that do, you can add more capacity. I suppose the issue here is simply cost, it is expensive to modify dams. Most view the hydro industry as important and big, but saturated. Of course, throwin enough money at it could change that.

Solar is certainly worthwhile, but at least so far, it's only worthwhile on an industrial/generation scale in areas that see a lot of sun, like Arizona. Again, if the efficiency is too low, it will take as much or more energy to make and service them than what they will ever produce. However, from a home economics perspective, with the subsidies in place to lower the cost of solar panels, even if they're not ultimately energy efficient, they certainly can be cost efficient on a home use scale in many areas. i.e. if you put them on your roof in PA, you may not be saving the world the way you think you are. Just instead of you using power from the electric company, you're asking the solar panel manufacturers to use it instead, and they're happy to oblige since Uncle Sam helps cover their costs. But you might be saving yourself money, and in the process you'd be diverting more money into research to make more efficient solar panels, which would make them worthwhile in more areas, so in that sense you'd be helping the industry.

What's my plan? Well, thats why its a problem, there is no "good" solution, every source has negatives. If there were a perfect solution, we'd have done it long ago. Currently, I think, nuclear is the best. It has the least problems per GWhr produced, and those problems SHOULD be even less if we were smarter about how we go about it. I do favor using as much wind and solar as possible in the places they are currently energy efficient, and keeping the research going to expand those areas. Geothermal holds promise, especially on the west coast for electric generation but even here on a household scale for heat pumps. Those are all better options than gas, coal, and oil. However, if forced to choose from those 3, I'll take gas over coal or oil. It's cleaner (though PA is ground zero for the problems it does have) and safer than coal, and unlike oil, we have it here.