

Subject: : Conservation

Topic: : We won't see profits from Shale Gas.

Re: We won't see profits from Shale Gas.

Author: : BrentL

Date: : 2013/11/1 12:01:56

URL:

Pcray, I've seen many of your posts on other topics and you are usually very well informed, but you've got this all wrong. First of all, let's go back to your example regarding demand growth vs. solar supply growth. Ok, so the first year's increase in solar doesn't even match your estimate of 3% increase in demand. However, by continuing to use your figures of 3% annual increase for demand vs. 100% annual increase for solar, solar power would be providing 100% of demand in just 8 years. Using a more conservative number of 25% annual growth of solar and it would provide all our supply in 28 years. That's how exponential growth works.

And the assumption of a 3% annual increase in demand is high, though a pretty decent guess considering you were just making it up. But a difference of 1 or 2 percent makes a big difference taken over the course of a few years. From 1997 to 2007 (just before the economic collapse) the total electricity demand increased from 3,302 to 3,890 billion kW-hrs., or 18% over ten years. Since that time it's been flat.

Germany, a country significantly further north than Pennsylvania, provides 5% of their electricity from solar. This is up from zero (or perhaps "fractions of a percent") ten years ago. And assuming Germany began this effort about ten years ago, the technology has already progressed significantly beyond what it was when they started. Also, the United States includes large areas in the Southwest and Southeast that have significantly more sunlight than Pennsylvania. Improvements to the grid can be made to take advantage of these conditions to provide power in PA, and I fail to believe that it would take anywhere near 100 years to do so.

In fact, the large size and geographic diversity of the U.S. mean that we are well positioned for renewables. I don't believe we would use solar alone. We would use a combination of wind, solar, hydro, geothermal, and other renewable sources. By tying together a large grid that uses a wide variety of these sources, a constant supply of electricity is assured.