

Has solar power reached cost parity with other sources of electrical energy?

M. Simon, Technical Contributor



The solar-cell pushers have been touting for quite some time the fact that the costs of solar cells have now nearly [reached capital-cost parity](#) [1] with other sources of electrical energy. Parity is assumed to be a dollar a peak watt of capacity or thereabouts. But is that really true?

A natural gas-fired electrical-generation plant can produce electrical power on schedule for twenty-four hours a day for weeks on end. The same is roughly true for coal and nuclear plants. It is also true for hydro facilities when there is water behind the dam. Let us set aside the intermittency caused by rain and clouds on solar-cell output for now. Let us just look at those peak watts. You get those watts only for about four hours a day. Declining rapidly when the sun is not at its maximum elevation. We can be generous and say you average six hours a day of peak energy equivalent from a solar installation. Well, there are 24 hours in a day. Accounting for the fact that electrical energy use goes down at night, to reach actual grid parity the solar installation has to produce energy for one half to one third the capital cost of a natural gas plant or less. For real parity. And that includes the supporting structure, the cost of installing the cells, as well as the cost of the cells.

And that doesn't even account for the cost of storage, which will further lower the price at which parity will be reached. Without storage, you need to keep conventional plants on hot standby to make up for dips caused by clouds and rain storms. And note I didn't even bring up winter snows in addition to dust accumulating on the cells which has to be washed off to keep the cells at peak capacity.

Until solar installations get down well below thirty cents a peak watt (and maybe as low as ten cents a peak watt installed to account for the added cost of storage), the "grid parity" so widely touted these days is just smoke, mirrors, and lies. And given the subsidies involved in addition to the capital costs, what the whole solar boondoggle represents is the poor paying for the toys of the rich. This offends my capitalist sensibilities. In fact, it is difficult to understand how communists could go for such a deal. At least openly.

Has solar power reached cost parity with other sources of electrical energy

Published on Electronic Component News (<http://www.ecnmag.com>)

M. Simon's e-mail can be found on the sidebar at [Space-Time Productions](#) [2].

Engineering is the art of making what you want from what you can get at a profit.

Source URL (retrieved on 04/24/2014 - 11:26am):

<http://www.ecnmag.com/blogs/2013/07/has-solar-power-reached-cost-parity-other-sources-electrical-energy>

Links:

[1] <http://www.treehugger.com/slideshows/renewable-energy/important-graph-cost-solar-headed-parity-coal-and-gas/>

[2] <http://spacetimepro.blogspot.com/>