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Oil Prices Are Rebounding Now, But A Permanent Plunge May Be Coming

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The recent fall in oil prices has received so much coverage that its recent recovery is almost unnoticed by the wider market. And yet oil has recovered exactly as predicted and to the point generally predicted by most experts, high enough to support the continued flow of much of the unconventional oil which the market was consuming before the price spike led to temporary excess capacity. The drop was self-correcting.

The sell off in energy stocks triggered by this market event was indiscriminate. Even SolarCity wasn't immune, though it is quite hard to make a case that it's current business model is threatened by cheap oil. But will that always be the case? With [Elon Musk's](#) Tesla Powerwall introducing home and business energy storage solutions last week, we may be seeing the outline for a long-term renewable based power grid. Combine that with Tesla Motors's autos, or next generation electric cars, perhaps designed by Apple , perhaps driverless from Google, and a carbon-less energy future starts to look possible.



Elon Musk, CEO of Tesla, unveils a home battery named Powerwall and large utility pack called Powerpack April 30 at Tesla's design studio in Hawthorne, Calif. (Photo by Kevork Djansezian/Getty Images)

Even today, experts like Jason Bordoff of the Columbia Global Energy Policy Center are asking whether we are seeing a global peak in oil demand, a far cry from the peak oil concerns of a few years ago.

Oil and gas will likely be with us for centuries to come as the stuff that makes products from plastics to petroleum jelly. But better batteries could lead to the end of oil and gas for much of its current uses—transportation and power. When that starts to occur, oil and gas prices will certainly slide, past the cost point for unconventional oil production, and then some. What happens to renewables when oil becomes that cheap?

A look at the fall in natural gas prices may provide a clue. Despite the ridiculously low price of natural gas in North America as a result of the rise of unconventional production, the conversion to gas has been slow, with much gas flared in the Bakken and left underground in Marcellus. Why? It's about the infrastructure. Gas can't move around on rail cars like oil, and the pipelines, LNG and GTL plants that are required to make commercial use of this resource are capital intensive, and complicated and time consuming to site and permit. Many factors are necessary to make gas work, such as risk capital, long-term off-takers and government approvals. It's not so easy make this all happen, even in an environment in this country in which there is huge pressure to shut down coal-fired plants and a willingness to permit LNG export facilities.

The use of natural gas continues to rise in the United States but the low price alone isn't driving this trend. What about oil? Oil production is much more responsive to price. We now see that unconventional, despite its higher production price point, is perhaps a flexible form of production, at least for the moment, easier to start and stop, less about exploration and more about extraction. Nevertheless, the only place we saw lower oil prices driving increased use is in motor fuel due to lower pump prices.

Several solar projects in Mexico were temporarily shelved in favor of continued use of diesel at the lower prices. But falling oil didn't slow the growth of distributed solar power in the United States nor really otherwise impact demand, beyond driving habits, for the same reason that we all aren't already using natural gas for all our power needs: the infrastructure.

Installed capacity, whether gas or renewable, can't be changed to cheap oil with the flip of a switch. Neither can a nuclear power point be taken off line the moment that oil prices fall. While energy source costs are certainly a factor, real long term energy use is equally driven by the infrastructure, including transmission and power production, which will never be fast paced assets.

Back to batteries: if this Tesla Powerwall thing, or the next generation, or its competition, delivers—whether in years or decades—and the infrastructure to support it is ultimately built, smart grids and enough renewable generation,

oil prices will certainly fall, and when that happens, the drop won't be self-correcting.