Forbes http://onforb.es/1JTS9fY

Joel Moser Contributor

I cover investment in energy and infrastructure.

Opinions expressed by Forbes Contributors are their own.

ENERGY 5/08/2015 @ 10:32AM | 1,685 views

Energy Investors Should Follow Elon Musk (Almost) Anywhere

The world now knows. The future will be powered by batteries. The recent announcement by Elon Musk of his Tesla Motors' Tesla Powerwall has begun to focus attention on the potential of this technology to combine with distributed solar power generation, among other renewable technologies, to allow a carbon-less, or at least a less-carbon energy future, with not only Teslas on the road but also cars by Apple and Google.

Musk and his tech colleagues think big and think disruption, so don't be surprised if this bet pays early and often. So, no surprise, I would put a buy and hold recommendation on Tesla, plus a basket of the other companies developing energy storage solutions. Not only is this the next big thing, it will likely be a lasting thing.

Not that oil is now over. Oil will be with us for a very long time. I "called the bottom" of the great over-hyped plunge of 2014/2015 and also predicted the current point of the recovery in this column. But we are at the dawn of Elon Musk's future, so investors should follow his process.

What else besides batteries and electric cars? While you could consider following Musk's "in real life" escape velocity play in SpaceX–with ethicists considering the moral implications of copulation on a permanent Mars base–a more down to earth investment strategy may be to simply follow the logical extension of the Powerwall business model. Battery storage will never reach its full potential until another technological innovation is widely adopted: smart grids.

There is nothing new about smart grids, which brings digital technology to the analog grid for real time controls of this now antiquated infrastructure, allowing for robust responses to changes in demand and supply resulting from both normal use patterns, as well as events such as outages from natural or unnatural disasters.

But the other thing that smart grids can do, and indeed are needed for, is to provide for the efficient management of a transmission system that allows for energy to flow in multiple directions, from and to points of use and generation, like a home or business that both consumes *and* produces energy by hosting rooftop solar panels. And does that without line loss that frustrates the point of the distributed generation. So Elon Musk's batteries will not be saving the planet any time soon unless many of the largest global economies also start to build out smart grid systems.

We've been hearing about smart grid since the dawn of the Obama administration and the stimulus package. That was where some of that "shovel ready" money was supposed to go. The problem was the smart credit wasn't quite yet shovel ready and much of the national grid is owned by private companies. But smart grid hasn't gone away, and companies like Siemens, Qualcomm and Verizon have been working away at it.

But here's the most interesting thing about smart grid as an investment now. Its growth does not depend upon the success of battery storage. It makes sense in and of itself. Smart grid technology makes existing transmission systems more efficient, with less line loss and greater resiliency. It's gaining acceptance and growing as a business model entirely independent of the potential for the wide use of distributed battery storage.

So there's a current business model for smart grid and you don't have to depend upon Elon Musk saving the world for this to make investment sense. The distributed energy/distributed battery storage homerun model for smart grid is layered on top of the base case for smart grid. It's an investment in the present and the future.

Besides large-cap companies that are in this, there are quite a few others which industry insiders are betting on. Here's a pick: EnerNOC, a software company that bought Pulse Energy late last year and is partnering with Tesla this year on storage systems. Just keep following Elon Musk, but maybe not to Mars quite yet.

(My fund Aquamarine Investment Partners is a real asset fund and does not trade in liquid securities so we do not have a position in these stocks, and I generally avoid investing in individual stocks in my personal portfolio to avoid any possible conflict with our investors.)

Space X's Falcon 9 rocket launches on January 10, 2015 as it heads to space from pad 40 at Cape Canaveral, Florida, carrying the Dragon CRS5 spacecraft on a resupply mision to the International Space Station (ISS). The Dragon cargo vessel should arrive at the space station at 6:12 am (1112 GMT) on January 12, NASA said. The cargo ship is carrying more than 5,000 pounds (2,268 kilograms) of supplies to the astronauts living in orbit. AFP PHOTO/BRUCE WEAVER (Photo credit should read BRUCE WEAVER/AFP/Getty Images)