The Utility Industry Can Survive the Energy Transition—It’s Leading It

A response to a recent GTM article on disruption in the utility industry—by the author of the cited report.

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Editor’s note: This is Peter Kind’s response to Chris Nelder’s article of April 9, 2013.

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Chris Nelder’s April 9 article “Can the Utility Industry Survive the Energy Transition?” is based on my recent report, Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business. My paper was commissioned by the Edison Electric Institute (EEI), which asked me to explain the financial risks of disruptive challenges as well as the investor implications and expectations to utility plans going forward.
A few important points were missing from Mr. Nelder’s piece, which I believe are critical to understanding the energy transition that he outlines in his article, as well as the role that electric utilities are playing in that transformation. Mr. Nelder is correct in outlining that the electric power sector is facing “disruptive challenges,” a mix of transformative technological and economic changes, as well as regulatory constructs, that could challenge and transform the electric utility industry. The financial risks created by these challenges include declining utility revenues and increasing costs. This is not new. However, what could be new, for some at least, is that these challenges not only affect the utilities and their shareholders, as suggested by Mr. Nelder, but, first and foremost, they also affect their customers.

I believe that electric utilities fully support distributed generation (DG) and other distributed energy resources. They recognize the value that some of these resources can bring and, therefore, are leaders in deploying them and in adapting the electric grid to better integrate them. The challenge does not lie in the rapid deployment of distributed energy resources per se, but in aligning the regulatory structures that govern the industry with the changes in technological and economic conditions in which it operates.

For the most part, despite significant cost reductions, distributed energy resources are still only deployed because they enjoy significant support in the form of financial incentives. Because of existing (and probably outdated) regulatory structures and cost-recovery mechanisms, these incentives, net metering in particular, are benefiting a minority of consumers (those who install DG systems on their property) to the detriment of the majority (those who do not). This is what needs to be fixed. It is the uneven treatment of customers that makes disruptive challenges unsustainable.

Through net metering, for instance, DG is compensated by the utility at a subsidized rate that usually does not include all of the
system’s costs. The costs that are not paid by the DG customer are covered by the others, who end up paying more than their fair share and, in effect, subsidizing the consumers with DG. To be clear, some incentive mechanisms are better than others at finding the appropriate rate at which to compensate DG. There are also many efforts by the utility industry to evaluate what that “right” level is, a level that takes into account both costs and benefits.

However, because of the traditional electric rate structure, even if the right compensation level is applied, rates based on volumetric cost recovery (those with proportionally higher electric consumption pay a bigger share of fixed costs) will make it so that, once again, non-DG customers will pay more than DG customers for the only reason that other customers in the system have installed distributed applications. Through this double mechanism, some incentive programs in place shift costs from consumers who deploy DG to those who don’t, who end up with a bigger share of a bigger pie.

This is well explained by Mr. Nelder, who understands the impact on the electric industry. But, his conclusion fails to recognize the impact on consumers as well. In order for renewable energy and DG applications to thrive and be sustainable, all consumers -- the ultimate users of electric products and services -- must be charged a fair price for their use of the grid. If subsidies are kept, they should be fair to all consumers, transparent, and easily modifiable to adapt to rapidly changing market conditions.

Here is where regulators, consumer advocates, and Wall Street all play a role. They each provide different, but complementary, checks and balances to the utility companies that ultimately ensure that consumers always come first.

The solution to cost-shifting and cross-subsidization is not necessarily difficult. The first step to finding a solution is recognizing that there is a problem, and EEI is proactively working with consumer advocates and state regulators to
advance the conversation in a productive way. The industry and its stakeholders must then proactively assess the impacts and alternatives available to address new technologies in a timely manner.

In my paper, I proposed different available options that I thought could help mitigate the problem in the short run. None of those proposals was prescriptive, and each company, with its regulators, will likely find a unique solution that will ensure that DG thrives and that the grid becomes greener, more resilient, and still affordable for all.

Let me finish with one additional thought. Responding strategically to this changing business environment is also important because utilities need to continue to have access to capital. Maintaining low capital costs is critically important to keep electric rates low and reliability high. The U.S. power grid is not “old [and] creaky” and has not suffered from “decades of deferred maintenance,” as Mr. Nelder so strongly states. Just the opposite. The power sector has invested more than $670 billion during the last decade, with more than $90 billion spent in 2012 alone, on enhancements to the generation, transmission, and distribution systems. What’s more, the industry’s capital expenditures are expected to average $80 billion during each of the next few years. The utility sector is, in fact, the most capital-intensive industry in the country and the one that invests the most in relative and absolute terms.

I am confident that the electric utility industry can and will survive the energy transition, because it is leading it. However, to ensure effective and long-lasting change, all industry stakeholders must understand that the transformation starts with ensuring that all consumers are treated fairly, that costs and benefits are thoroughly analyzed and evaluated, and that the rate structures and incentive mechanisms are revised as necessary.

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