

Should Utilities Shift Rate Structures – and Customer Communications – to Meet Industry Changes Like Distributed Generation?

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By Richard Huntley



Is residential **distributed generation** an idea whose time has finally come? Solar panel pricing appears to be dropping; feed in tariffs are starting to appear; and in some areas, utility-led financing can sweeten the pot even more. In addition to the cost benefits, the idea of being more self sufficient and “green” is appealing to many consumers.

The positive effects of this are generally clear. However, a question is looming on the horizon that needs to be considered. Is the structure of utility rates fundamentally inadequate to deal with this? Even as decoupling and the possibility of allowing utilities to earn a rate of return on avoided consumption take hold, most distribution assets are billed on a method largely based on volumetric consumption.

As I look out of the window from my office in Vermont, I notice several poles and the accompanying wires that deliver electricity to my house. My local utility does an excellent job of maintaining this infrastructure, including trimming the surrounding trees. They are compensated for this work by a per KWH charge for distribution that I pay. This is supplemented by a typically modest customer charge.

However, what happens if photovoltaic (PV) solar, possibly coupled with affordable batteries, becomes an attractive option to me? Will I, in effect, be able to take myself mostly off the grid for a large portion of time? Under the current rate structure, if I do this, the amount my utility will bill me drops significantly. In essence, my utility company is providing me with a backup service that I use as needed. Will they still be able to maintain the infrastructure specific to my location under this scenario?

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Logic Doesn't Always Win

I hear the cries that distributed generation penetration will be such a small amount in the foreseeable future that these scenarios will be covered similar to the current variations in consumptions that occur. However, as we have seen with press coverage of smart meter deployments in California and Texas, logic does not always triumph.

- What happens when a member of the media decides to do a story mentioning that Mr. and Mrs. Big-House-On-The-Hill with PV, six poles and 500 yards of wire are paying only perhaps \$25 per month for the utility to be there in times of need?
- Even more sensational, what if the view is taken that this customer is being subsidized by those customers that rely on the utility for everything and live closely together in more efficiently serviced areas?

This could create a situation perceived as the less well off subsidizing the more affluent. A public outcry causing a resulting change in the billing structure is reasonable to expect. But do you want to let it get this far?

As these contrasts in the cost to serve compared to the revenue earned become incrementally larger in certain circumstances, will pressure increase to develop rates that truly reflect these new models? Should the person using the utility just as occasional backup have to start paying for the cost to do this? Perhaps what is needed is a customer charge that better reflects the right to use and a consumption charge that reflects what is used.

There is no clear answer at this point, but it is certainly something utilities need to be thinking about now as the industry enters this time of significant change. Further, it reinforces the need for utilities to shift behaviors to become more proactive when it comes to customer communications and care.

Communicating any changes clearly and proactively, before concerns are raised, can help to reduce the potential negative impact of these changes – both to the customers and the utilities.

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