

Do You Really Want What You Want?

I had a great time last week. I was one of 100 experts from a wide variety of fields invited to gather for the Conference of World Affairs at Colorado University - Boulder to spend the week talking with each other and presenting our thoughts to large audiences of "regular" folks (free to attend) who wanted to hear what we had to say.

When I say wide variety, I mean wide. One of my fellow speakers was the co-creator of the Daily Show. Another one has been in space and is getting ready to go again. One created Ms. Marvel, the Pakistani-American Hijab-Wearing Superhero in the Marvel franchise. Another was an recognized expert on the sharing economy. I was on a panel with an expert on breast cancer, an expert on China and the Editor of ProPublica. I was considered by them and the other speakers to be the "energy and climate" guy.

One aspect of my participation at the event is worth noting as it hits home for those of us living in these interesting times in the electricity industry. As you may remember reading somewhere, the City of Boulder has been for several years trying to detach from its utility (Xcel) to become a Municipal utility. Last week, once anyone from Boulder, be it university staff, audience members, members of the community, etc., found out what my area of expertise is, they immediately wanted to know what I thought about the "municipalization". Some were staunch supporters (and opponents of Xcel) and wanted to vent about how long it was taking. Others were asking me if I thought it was a good idea. It was the latter camp that most of them fell into.

My comments on whether or not Boulder should become a municipal utility were usually in a sequence of three:

1. I don't know, because I don't have enough information on the specific situation and the current proposal.
2. I am not clear what the city wants out of becoming a municipal
3. Does the city recognize that the electricity/utility industry is rapidly changing? Does it know what it would be getting into?

It is the second and third items above that are important for not just Boulderites to be asking. They are key questions for any party who is trying to plan something or make a future-oriented decision that involves electricity/utilities. That is because if one analyzes a situation and makes a decision on that analysis, and the situation analyzed is one that is about to be significantly modified, then it is easy to end up with an outcome that doesn't make sense based on the future situation.

I am not just talking about just technology and operational changes. I am also thinking of changes to regulatory and business models. On the "Sharing

Economy" panel that I was a speaker on last week, I brought up the fact that in cities where cabs were driver-owned, those drivers had purchased one of the limited number of licenses (known as Medallions in NYC) that exist under a total cap. They made this six-figure-plus purchase thinking that they had a long-term asset that they could eventually "flip" to someone else, and use the proceeds for their kids' education, retirement or something similar. But then came Uber and Lyft, and there went the value of the Medallions.

The similar example in the electric utility industry is an investment in power plants that might be stranded because they have been rendered uneconomic or otherwise unusable due to DER and other changes.

So any decision that is being made using the electricity industry as it exists today needs to be carefully made. The citizens of Boulder need to be sure that they want to own and operate a system where there

will be many more resources "pluggin' and playing", and where there will be many more choices that their customers want and demand. They need to make sure that they are ready for a more dynamic, transactive distribution system, and ready to ready to manage new responsibilities for cyber security and reliability/resilience. It could be that they still see a green light after considering all of that, but at least they will have thought about the right things before taking the leap.

There are similar questions in our industry today. Does a utility really want to own large plants in what will be a DER world? Does a utility really want to build some type of capability for itself, or should it consider cloud-based external services that provide it with greater flexibility and lower costs. Does an electricity customer really want to own solar panels or should they just become a member of a solar "garden"? Does a building or facility really need to think about being able to "island"

itself when necessary or can it look at being part of a bigger island such as a microgrid?

If you asked me any of these questions, I would have a similar sequence to my response to folks in Boulder. It depends. That is why it is more important than ever to really think through a decision before making it, with the goal of future-proofing what you do to the extent possible. I don't mean future-proofing technology selection. That is a trap that you can fall into that leads to analysis paralysis and loss of benefits that you can have had. (example: waiting for the best phone to come along until you get your first one). I mean the decisions that could be impacted by the restructuring and massive transformation going on in our industry. That is not easy as there are a lot of moving parts right now. But you have to try anyway. And most of all - don't get sentimental. Just because you have done something for a long time doesn't mean you still should do it. And

just because you have always wanted something, doesn't mean you should still want it. But it could also mean that you have reason to now want it more. That is the kind of wild, wild world that our industry is today. Full of opportunity, full of questions and full of possibilities. But be careful out there. As the ancient crusader said to Indiana Jones: choose wisely.

Dan