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Last month's column discussed the Rainsuit Theory of grid modernization. This is third in a series of discussions on how different mindsets look at grid modernization. One of my past bosses used to share humorous theories of organizational change management from a college professor, McAdams, worthy of the great philosopher, Yogi Berra.

The McAdams Theory of Grid Modernization

While this column normally focuses on grid issues, generation counts. The grid is after all an energy system which includes generation, delivery, and load. So, a modern grid has a substantial partnership role with the future generation portfolio of the nation. The grid, generation, and load are not separable variables in the modern electric system.

McAdams Theorem #1: Once things change, everything will be different afterwards. This theorem reflects both reality and fear. As we move to a modern grid, we cannot tell exactly what the aftermath of the transition will be. This is reality, and from this, we sense risk. And, risk generates fear in an industry that is not rewarded for taking risks.

For example, we don't know the true burden of a renewable portfolio standard (RPS) in the future. While we know that the benefits of renewables will be an important part of our future energy security picture, we choose not to move in that direction with the latest Energy Bill for a lack of exploring options. This clouds the path we take to modernizing the grid.

A renewables-rich future could shift the power (and influence) within the industry to a more diverse portfolio. This non-traditional future could add risk and upset traditional business models. So what. McAdams Theorem #1 does not support averting risk and maintaining status quo as a goal, but rather recognizes the industry will change, and we must be in the process of preparation for the change. It is important to remember that risk aversion is not risk management. Traditionally, we avert risk, but tomorrow calls for managing the inevitably more risky future.

McAdams Theorem #2: Nothing is impossible which is currently taking place. One reality in the US electric industry is that we fail to look outside our borders to see if there are good examples of innovation in the industry. As an industry, we look at the guy next to us (operating under the very same premise) for innovation, or lack thereof, and declare adequate progress with the status quo. It is a question of sample size.

There are regions of the world with less capable wind and solar zones than the Eastern US, yet they are meeting or will meet a substantial RPS. We must also remember that, while popular in discussion, wind and solar are not the only renewable resources.

As an industry, we have failed to educate Congress on all the generation and grid options for the future. We share a very limited view of the future with the policymakers, serving a traditional risk averse path.

How would McAdams view the US grid modernization progress?

While many aspects of the Energy Bill signed by the President on 19 December are very helpful, it pulled back from two major pieces that would advance the modernization of the electric system; renewable portfolio standards and long-term tax credits for renewables development. I think professor McAdams would see our industry in violation of his theorems.

The next step for energy independence is crucial, and I fear it will be years before we revisit the important renewables aspects of energy policy in the US. The year 2020 might find Europe meeting a 20% renewable energy goal, and the Eastern US still arguing the existence of renewable resources. Maybe Yogi Berra said it best, “If you don't know where you are going, you might wind up someplace else.” Where is the electric half of the US energy picture headed? The same cloudy path to modernization? Maybe the Smart Grid Advisory Committee (section 1303 of the Energy Bill) will figure this out for the rest of us “gridders”.

The McAdams Theory suggests the energy industry (utilities and oil companies) has not given the policymakers the complete story. The discussion about renewables limitations in the Eastern US focused on wind resources (a clear

challenge in the East). The remaining renewable sources, which can play a significant role in the East, were not part of the argument. Is this to serve self interests or is it from an ignorance of these changes already taking place elsewhere? Either way, the result is a tradition-seeking path.

The Bottom Line

The industry has changed its lexicon from "energy independence" to "energy security". In theory there is no difference. In practice, this move enables a continued supply-side approach to the future with a better secured dependency on foreign sources of energy. This is not moving toward energy independence or modernization of the electric system. Again, according to Yogi Berra, "In theory there is no difference between theory and practice. In practice there is."

Next month, we will take a look at the GenX Theory of Grid Modernization.

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Steve's previous column