

Grid reliability metrics are hurting utility C&I customers

BY JERRY YAKEL | 6.26.19

There is a growing gap between measured actual grid reliability and customer perceptions and experiences of grid reliability. Industry standard reliability metrics provide a historical look at what has already happened, but with many filters, including weather exemptions, defining what counts. Reliability in this day and age ought to mean: how well are utilities delivering their energy product every day?

When it comes to reliability expectations: the impact of an outage varies between residential loads and commercial & industrial (C&I) customers.

When residential customers lose power, they want their internet connection, televisions, air conditioners, etc., back on now to get back to their standard of living. C&I customers have much greater concerns. When their power goes out, manufacturing stops, grocery store registers can't process purchases, websites and Internet access goes down, and the list goes on. Any of these delays can cost a business thousands of dollars.

C&I companies can measure how outages affect them from a financial perspective, but how does the electric-utility industry measure them? The fact of the matter is, many times it doesn't.

Often, insights on customer satisfaction about reliability are buried within traditional CSAT measurements. However, these measurement techniques mask grid reliability among dozens of other performance factors, including call-center efficiency and website functionality. True power-reliability effects remain invisible in utility performance reports, but they aren't going unnoticed by utility customers.

It's time for the industry to stop seeing customer satisfaction as a soft measurement and start viewing at it as a tool to really tackle reliability improvements.

Regulatory changes pertaining to reliability have been popping up over the last few years in response to the reporting inefficiencies and are expected to continue. A regulatory trend we are seeing involves performance-based incentives to drive utility improvement.

The best place to get a leading indication of reliability is to look at performance at the C&I level. While a utility may have more residential customers than C&I customers, C&I customers consume more total power and have the most to lose in the face of an outage.

In a recent study focused on reviewing how outages are affecting these customers; the findings were



startling. Despite reliability being a hot-button topic, large U.S. C&I customers aren't seeing positive change in their power reliability. In fact, the report found that 22% more outages were reported in 2018 than in 2017. Moreover, there was a 71% increase in momentary outages across the board, and we found that 1 out of 5 C&I customers experienced monthly outages. No matter the length of an outage, C&I customers remembered them.

And it doesn't stop there. In the digital age, C&I companies depend on reliable power now more than ever, and they are willing to take matters into their own hands to support their reliable-power needs. In fact, 1 in 4 companies doubt their utility can support their long-term growth, and 84% want utilities to continually improve their services. Of those that had purchased their own alternative energy solutions, 72% cited improved reliability as the primary reason.

As more and more C&I customers look to solutions they can implement themselves, the grid will see significant impact from the complication of dispersed generation appearing and disappearing because of upline outages. It is like traditional generation today where it is unacceptable to drop a generator off line, distributed generation sources are most effective if they stay connected.

Most of the grid-modernization plans in effect assume the existing state of the grid is good enough and that distributed generation can simply build on what already exists. But the reality is, modernizing on an unreliable grid base makes matters worse. The real challenge is, the grid as it currently stands is not good enough. Grid modernization must occur at a deeper level.

Incremental work that changes a portion of the system won't bring about the impact needed. Reliability improvements must be developed on a systemwide scale and become central to any modernization strategy.

Full findings of this report can be found [here](#).

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