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COMMENTARY

Why Smart Grid?

Smart grid continues to be a topic of interest in our industry. Many standards activities are working toward a new way of doing things. Within ASHRAE, SPC 201P is generating a standard for modeling building energy and energy infrastructure data. SSPC 135 is using that model to extend BACnet to support smart grid initiatives.

The principles behind a smart grid—collecting energy usage data, acquiring real-time pricing, managing peak demand, providing load forecasts, feeding back generated power—are not new, so what is all the fuss about?

All of these activities have been happening for years. Granted they are not all commonly performed, but some advanced or large customers have been cooperating with utilities for decades.

So, why is smart grid so important? If we can already do these things, why is it that we need to figure it out?

One of the largest obstacles in wider adoption of smart grid activities is the lack of standards. Without standards it is more expensive to implement solutions, as each solution is unique, or at least unique to a region. Standardization will help create economies of scale to allow companies to provide cost-effective solutions.

With cost-effective solutions, more installations will be able to take advantage of the technologies and open up the communication with utilities. This will open up opportunities for installations to take advantage of better pricing, help the grid work through times of over-demand, and should result in much more data being collected about an installation's power usage. More data means more opportunities for better understanding of a building's actual performance. And better understanding leads to opportunities for performance improvements.

We already see products on the market based on some of the initial smart grid standards. OASIS's OpenADR recently released a new version and they are working on spreading the word and getting more regions to use its standard for connecting the building to the utility.

As more smart grid standards are developed, such as those being worked on by SPC 201P and SSPC 135, we should see products that dig deeper into building automation to better connect buildings to utilities through standards such as OpenADR, bringing the promise of better management of electrical usage, better building performance, and hopefully, lower electrical bills.

In this edition of BACnet Today, we have articles related to smart grid and building automation, from submetering and micro-grids to how smart grid might impact building owners.

On top of that, we have an article on why you should secure your building automation network (and how to do it!). And then, to help you stay informed about the world of BACnet, we have articles that dig into the basics of BACnet and recent developments in the BACnet standard.



Neilson

Carl Neilson, Chair,
Standing Standards Project Committee 135