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ASK THE PROFESSIONALS

SDSIC: Improving the Way Substations Are Designed Through Connections and Collaboration

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Electrical substations are critical to the safe, reliable and controlled delivery of power to consumers across the country. Engineering design of substation equipment requires a broad understanding of power industry infrastructure and ways to deliver intelligent solutions.

A collective goal to share that knowledge and communicate substation design best practices is what led to the creation of the Substation Design Solution Industry Consortium (SDSIC). The organization's first in-person gathering was in Nashville, Tennessee, in 2014, and consisted of just a handful of industry leaders. Since then, membership has grown to more than 1,400 professionals made up of member utilities and contract design/engineering firms who meet regularly to discuss substation design and evolving technology needs, establish common part and workflow standards, and address other related topics.

Audrey Marich, consortium chair; **Mark Nelson**, consortium vice chair; and **Mark Tablante**, consortium member; share additional details about SDSIC.

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Q: The SDSIC is a non-profit made up of more than 1,400 volunteers and growing. For anyone involved in substation design, what are the benefits of joining the organization?

The objective of the SDSIC is important: to collaborate with substation design partners and peers, which include utilities, contract design/engineering firms, consultants and vendors. We really want to achieve shared design practices. This helps our vendors and it helps us. That's our goal—to share information and not reinvent the wheel independently.

The SDSIC's key objectives include focusing on the best practices for the industry, adopting common part standards, and providing feedback and input about products to software developers.

Q: How is the SDSIC helping to improve substation design workflow?

Utility companies can sometimes work in silos and we believe that should change. SDSIC members talk with each other frequently about lessons learned so we can avoid experiencing the same pain points.

When you have like-minded individuals who are designing and building the exact same thing as you, they are the best problem-solvers to help address certain issues. This shared knowledge is especially helpful to anyone new to substation design. Such newcomers are not reliant upon a single manager telling them how something is done; rather, they are dependent upon the industry itself. It can best be described as free consulting from peers for the betterment of the industry.

Q: Members of the five SDSIC committees meet regularly. What are some of the topics committee members recently discussed?

The SDSIC has five committees that meet every month: electrical, physical, civil-structural, technology and business strategy. The chairs of those committees are all utility members and only utility members are allowed to vote. The co-chairs can be utility or non-utility members. We'll often conduct panel discussions about the things our members are worried about, or what has changed with utility regulations that we need to focus on and address, such as security problems, how to attack the cloud and incorporate those sorts of things with collaboration.

Another topic often discussed is how our members collaborate with our contract firms to get our designs to and from them securely. It's a shared security concern and technical workflow challenge.

Q: What is the SDSIC's relationship with software developers that provide the suite of applications you use for substation design?

The SDSIC works directly with software developers—such as AutoDesk and SBS Substation Design Suite software products—to improve their tools for utility industry use. Since many of these tools were initially developed for the manufacturing industry, they needed some tweaking for our industry. In addition to talking directly with software developers, consortium members often will be asked to test a product before it goes live.

Not all utilities are Autodesk clients and instead use different software. As members of the consortium, software agnostic utility companies often chat regularly about design concerns or some of the pitfalls they've experienced. These conversations and subsequent feedback put pressure on the vendors to provide a more sustainable, efficient product.

Q: Due to the pandemic, SDSIC members have been meeting virtually, but you plan to hold your annual conference in-person this fall. Where will it be and who can attend?

The 2022 annual meeting will be held in-person Oct. 31-Nov. 3 at Burns & McDonnell headquarters in Kansas City, Missouri. We are really excited to be able to meet face-to-face with both new and established members to network and infuse some energy back into the consortium. Anyone who would like to attend our meeting in Kansas City must be an SDSIC member; however, membership is free.

Every year the consortium gains new members and while we all work in some way in substation design, we hold different roles at different levels of our career development. That is helpful because our seasoned professionals can provide feedback and guidance to the newer members, all to improve substation design and make sure power is getting to the people who need it.

To learn more, please visit **sdsconsortium.com**