Looking Forward To It: What 2017 Has in Store for Technology

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It’s hard to predict precisely what electrical contractors will face in 2017, because many things will influence the landscape where they work. However, there’s every reason to believe that new and emerging technology in a changing digital world should bring opportunity and optimism.

The inauguration of the new U.S. president is likely to shape the industry and present challenges and opportunities for ECs. Uncertainty exists with regard to stimulus spending on infrastructure and expansionary projects of industrial firms as well as sustainable programs that have catalyzed solar projects, fuel cells on the grid, renewables and other energy-saving technology.

Still, renewable-power sources are on an upsurge, overtaking coal last year as the largest source of installed power capacity. There are, and probably always will be, opportunities in renewable power and other automated technology.

For this reason, ECs should keep a watchful eye on several developing technologies. Doing so will help them approach projects with confidence and fidelity as well as shape their workforce and skill sets to meet industry demands.

According to Van D. Wilkins, national accounts manager with New York-based research firm ABM, new and developing technological innovation will be used in concert with the Internet of Things (IoT) and network technology. Such integration still has a ways to go, but whatever the technology, it is likely to feed into the IoT and ethernet.
This stands to change the dynamic for ECs. On top of traditional conduit, equipment and cabling, there will be a focus on more advanced distribution systems that are part of control systems used in many industries, including power generation and electrical distribution.

“There is a push to develop more products that work off PoE [power over ethernet], which can be installed by nonelectricians, and therefore, firms that are not in the electrical contracting business are entering the traditional contractors’ space,” Wilkins said. “PoE and fiber optic lighting are two examples. Additionally, more integrated switchgear, transformer and panels are being connected to control systems for demand management using battery storage and renewables. Customers will be expecting their contractors to have more engineering capability and to quickly provide budgets to capture changing requirements from a regulatory, tax and utility marketplace that are seeing rapid change.”

Other growth areas include solar technology (about 500,000 solar panels were installed per day in the past year on average) and advanced lighting systems.

“The ability to meet demand and keep up with the pace at which the solar market is expanding,” said Tim McDuffie, chief engineer, CalCom Solar, Visalia, Calif. “The products themselves are useful, but, in many instances, they are undermined by poor logistical support from the supplier. The sheer volume of purchases and the pace at which it’s happening tends to overwhelm vendors that lack logistical infrastructure.

“The very first question asked after price is ‘What guarantees will you provide with regards to meeting deliverable timelines?’ The vendor that develops and maintains the logistical support needed to reliably move product to increasing rural areas will hold an advantage on their competitors,” McDuffie said.

Bill O’Connell, technical sales manager, LEDvance, Wilmington, Mass., discussed the EC’s role in lighting systems.

“From a lighting point of view, a top challenge for electrical contractors and equipment manufacturers at the end of 2016 is creating lighting systems where all of the components—from the controls to the light sources, power supplies and ballasts—can operate as a seamless system,” he said.

Building owners are driving toward improved energy efficiency, and networks may play a critical role. Property owners are also pursuing increased sustainability and greater connectivity, especially as the IoT becomes more prevalent.

“The desire to have a smart building that responds to occupant activities and other data inputs will drive this focus on connected equipment and devices,” O’Connell said. “This will drive electrical contractors to become more IT savvy to be able to service their clients well.”

Business will improve for ECs if they approach these technologies with an open mind and embrace rather than resist them. They should understand the technology and how it merges with other technologies to manage their businesses efficiently.

“For contractors, the top challenges are maximizing productivity and margins, especially for smaller companies,” said Aviram Hinenzon, senior vice president of marketing at Minneapolis-based Verisae. “In terms of electrical equipment the top challenge is pressure on product margins from competition and the need to use service as a differentiator.”

ECs should approach 2017 with optimism and seek to find their niche within the brave new world that awaits them. With the right ingredients—smart leadership, curiosity, understanding and observation—they can successfully lead the hearts and minds of their workers and customers into a very good 2017 for all.