

# NECA 2016 Annual Report: Planning for the Future

Each year, NECA creates a report to share information regarding the association's progress throughout the year. The report will also be available on the web in January at [www.necanet.org](http://www.necanet.org).

## A LETTER FROM NECA PRESIDENT DAVID A. HARDT

Another year—my second as NECA President—has passed, and our association remains in a strong position. I want to start with remarks I made at the IBEW Convention earlier this year:

*"It's important to remember that the tools, technologies and techniques that once built our country and our industry are no longer building our future. We cannot refuse to change and expect the owners to use us. We cannot refuse to change and still expect to grow. NECA is proud of the fact that we have been partners with the IBEW for well over a hundred years now, and I see us continuing that partnership. But we can only be partners if we can each individually survive and grow. And the best way for us to individually survive and grow is to do it together."*

Looking back at the past twelve months—and forward to the year ahead—highlights the importance of change. The business of electrical contracting is changing rapidly. It's imperative to utilize every tool at your disposal to move you and your business forward. And NECA is here to help.

NECA is committed to representing the interests of the broad electrical contracting industry. We are dedicated to enhancing the industry through research, performance standards, progressive labor relations, and workforce recruiting and training. NECA offers comprehensive management training as well as the industry's premiere trade show. NECA also publishes this magazine, the industry's top source of information on electrical construction.

NECA contractors set industry standards for traditional electrical systems as well as newer integrated systems. Developing engineered solutions to meet existing and emerging customer needs and leading the industry in the practical application of new technologies remains a hallmark of our association. We are here to serve you.

  
David A. Hardt  
NECA President

## A LETTER FROM NECA CEO JOHN M. GRAU

NECA has made a lot of important strides in the past 12 months. Like any association, we are continually adapting to change and taking steps to ensure we're ready to embrace the future, which, at the moment, looks bright.

One example is the expansion of our online training capabilities. Online training is becoming a necessity in many areas, both due to time and geographic constraints, and is often demanded by a younger generation accustomed to using online resources. NECA's movement toward online training is an exciting step forward that will serve our membership for many years to come.

NECA is poised to be at the forefront of electrical construction when it comes to spotting emerging technologies and trends. The Disruptive Technology Booth at NECA 2016 Boston, which created a platform for new and exciting technologies affecting the industry, was one of our innovative ideas. The booth was a major success and inspired attendees to incorporate new ideas into their work.

Finally, NECA is up to the challenge of finding and growing a talented workforce. There has been an increase in the number of apprentices, which is a positive sign, but many more workers will be needed to maintain or increase our current market share. Joint IBEW-NECA job fairs are being used in many areas to attract and hire new workers. We also have been implementing programs to educate students in high school on opportunities in the construction trades.

It is clear to me NECA is headed in the right direction. My staff and I remain committed to serving you and, in the process, finding ways to lift the electrical construction industry to new heights.

  
John M. Grau  
NECA CEO

## DISRUPTIVE TECHNOLOGY

NECA is dedicated to providing top-quality education on the topics members need most. Innovations in the way we deliver training will expand our reach to further assist members.

The construction industry has crucial societal, economic and environmental relevance. And within the construction industry, it can be argued that the electrical industry powers it all. Emerging technologies are disrupting the way people build, work and live as well as the way they impact future generations with a legacy of health and sustainability.

This year, NECA created a platform for research and discovery of disruptive technologies, making the decision to lead the electrical construction industry into the future. Dr. Joey Shorter, NECA Director of Research, has already begun to guide and inform processes and methods for construction. That process includes:

- Researching disruptive technologies and their impact
- Creating “Pardon the Disruption,” a weekly blog
- Informing NECA membership of evolving and improving technologies with informative presentations at various regional and national forums
- Interfacing with ELECTRI and Program Review Committee for future topics
- Researching new developments shaping the future of electrical construction
- Formulating processes for collecting and interpreting electrical construction’s “big data” for “big ideas”

Among firsts in 2016 include establishing the Disruptive Technology booth at NECA 2016 Boston, which showcased emergent and innovative technologies impacting the electrical construction industry. The booth was a popular stop on the Show floor which drew a variety of members, highlighting the importance of staying engaged and focusing the ways new technologies will impact the industry.



WINDFARM PHOTO COURTESY OF ROSENDIN ELECTRIC

## WORKFORCE DEVELOPMENT

NECA understands that a skilled workforce is the cornerstone of our industry. Together with our partners, we are committed to finding and maintaining the most highly skilled workforce in the specialty contracting industries.

NECA’s workforce development efforts are attempting to address a national workforce shortage and to close the skills gap. NECA, working in conjunction with the IBEW membership development department and supported by the National Labor Management Cooperation Committee (NLMCC), is working with contractors and chapters to increase the effectiveness of their engagement.

NECA is incorporating technology into its searches to support these campaigns, utilizing social media and data mining processes to widen the net cast in support of these efforts and meeting members of the younger generation where they live and learn. Evolving processes, such as geo-fencing— a way to send targeted push notifications directly to people in a defined geographic area— are being reviewed and evaluated in numerous areas of the country, and they are being brought to the national stage.

Through involvement with Helmets to Hardhats and the Department of Labor-supported ApprenticeshipUSA, NECA has been able to reach out and connect with underrepresented populations, targeting specific groups including minorities, veterans and women.

Finding the technology and people to lead the industry into the future is not only important for short-term survival, but is critical to long-term success. NECA continues to value its workforce by providing clear career paths and investing in the development of skills, and by positioning the industry as one that provides successful careers as opposed to the alternative to one.

The NLMCC supported 35 job fairs in 2016, and has nearly a dozen in the scheduling process for 2017. More than 3,000 candidates have attended the various events, meeting with more than 250 NECA contractors. Many skilled journeymen have been directly hired on the nights of the events, with many additional apprentices and CW/CE's gaining employment. Additionally, hundreds of industry employees have been hired over a period of months following the job fairs, with many jurisdictions placing attendees into the employ of members on an ongoing basis.



## ENERGY STORAGE AND MICROGRIDS

The energy storage landscape is changing and expanding. NECA involvement in standard development will position members as the go-to sources for these new technologies.

Recent initiatives by the federal government on reducing energy use and subsequent mandates by the Department of Energy are shaping and expanding business opportunities for electrical contractors. The need for energy storage systems to supplement alternative energy sources and to help with an aging transmission and distribution network has driven increased focus on deployment of energy storage systems and active AC and DC microgrids. Energy storage systems and microgrids will be keys to implementing load leveling and handling demand response as the electrical grid becomes smarter. Energy storage is not new to the electrical industry, and it is definitely an integral part of electrical division scope in the Construction Specification Institute's formal specification system format. Once again, NECA members are poised to be the experts in design, installation and maintenance of these installations and systems.

Energy storage systems may consist of multiple battery technologies, capacitors, and kinetic energy devices such as flywheels and compressed air. Some new energy storage technologies that are currently being evaluated include superconducting magnetic energy storage systems. Another significant opportunity for NECA members exists in the expanding maintenance requirements for such systems. These installations require monitoring and regular maintenance. NECA's comprehensive *National Electrical Installation Standard (NEIS)* on commissioning building electrical systems includes recommended energy storage systems startup and commissioning procedures. The *NEIS* program provides NECA and the industry



with ANSI-approved workmanship standards to apply to emerging technologies, whether through design or owner specifications.

The National Electrical Code (NEC) is evolving and expanding to include rules that apply to energy storage systems and microgrid installations of any scale. NECA plays an important role in the development of NEC requirements for these trends as the association has active representation on the technical committees where the rules are made. As the NEC and NFPA standards evolve, so do *NEIS*. NECA is developing two new quality and performance workmanship standards that can be applied to these systems. NECA 416 (Energy Storage) and NECA 417 (Microgrids) are in development. Other safety standards such as UL product standards are evolving in this space. NECA provides valuable input on the UL Electrical Council, so field concerns are incorporated into product standards development.

The need for large scale photovoltaic systems and wind power systems are also providing many opportunities for NECA members' expertise. With these technologies emerging in the electrical industry marketplace, there comes the need for strengthened expertise, expanded education, training, and certification. NECA, IBEW, and the *electrical training ALLIANCE* have responded proactively by partnering with Penn State University in developing a world-class training and certification program on energy storage and microgrids. These systems require more specific technical and safety training and expertise at the design and installation levels and for effective, safe commissioning, maintenance and control of these systems.

The energy storage landscape is changing and expanding. NECA meets the necessary qualification and expertise demands for managing electrical work related to the rapidly expanding development and growth in these areas of the electrical industry.

## CLOSING

NECA continues to be the leading voice of the electrical construction industry that brings power, light, and communication technology to buildings and communities across the U.S. Dedicated to enhancing the industry through innovative research, performance standards, progressive labor relations, and workforce recruiting and training, NECA is in a strong position to tackle the myriad challenges facing the industry in the years ahead.