

Energized Services

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ENERGIZED SERVICES



Looking for a single company equipped to handle virtually any specialty contracting need in the electric power, telecommunications, broadband cable and gas pipeline industries? Need a company that can design, install, repair and maintain infrastructure across the country in any ONE or all 50 states and Canada? Quanta Services delivers the Power of ONE. That is the collective expertise and pooled resources it takes to serve as a one-stop shop for even the most complex project needs.

ENERGIZED TOOLS & TECHNIQUES ELIMINATE SERVICE INTERRUPTIONS

Quanta Services' energized division follows a simple motto: maintain... upgrade... rebuild... any voltage, any facility, any terrain, any time without interruption of service. Through use of energized techniques and proprietary equipment, Quanta Services' crews are able to increase the capacity of electrical lines, repair equipment, upgrade structures and maximize use of rights of way. All the while, power continues to flow to homes, schools and businesses.

Quanta employees performing energized services are hand-selected, experienced journeymen. Each team member completes more than 120 hours of training and annual, recurrent training to be "energized certified." This intense course of training focuses on the safety of crews, the mastery of skills and the work procedures required of energized service technicians in the field. From replacement of cross arms to insulators and hardware, energized services reduce the total cost and provide the best value by keeping the customer in service and eliminating the need for grounding and switching related to the traditional approach.

LineMaster™ — Quanta is the only licensed operator of the LineMaster™ robotic arm. This proprietary equipment separates energized lines from poles and allows for safer, more efficient repair, replacement or upgrade of transmission and distribution lines and eliminates the need for maintenance-based service outages. For example, a client in a large metropolitan area contracted with Quanta to utilize the LineMaster™ robotic arm to keep the electricity flowing while workers replaced lattice steel towers with single pole steel structures. The energized work not only saved the customer 50 percent on labor costs, but also avoided inconveniencing power consumers with an outage during the hottest months of summer.

Hotstick and Barehand — Like the LineMaster™ robotic arm, barehand and hotstick techniques enable crews to work on lines without interrupting the customers' power supply.

Quanta utilizes the hotstick to move conductors, install fuses and open and close switches. For more intricate repairs, workers use the barehand maintenance method in which live-line workers wear specially designed protective gear that enables them to work at the same electrical potential as the line. Barehand crews can safely handle and efficiently repair live lines up to 765 kV. In fact, barehand techniques enabled Quanta crews to repair a nuclear plant's 345 kV substation switches in one day without shutting down the reactor. As a result, the utility saved an estimated \$10 million – the cost associated with shutting down the reactor, making repairs, returning it to operation and making spot market power purchases during the down time.



ONE COMPANY, MANY BENEFITS

Quanta has the people, expertise and tools necessary to meet any power-related infrastructure need. The energized scope of services is a particularly strong example of a Quanta innovation that truly benefits the direct customer and the end user. After all, turning the power off costs Quanta's clients money and inconveniences their customers. Energized services completely eliminate those costs and inconveniences. That is the Power of ONE.

CASE STUDY | QUANTA COMPLETES PROJECT IN RECORD TIME AND SAVES THE CLIENT MONEY

When a New England client had to replace 384 wood cross arms and 80 wood poles on 37 miles of a 345 kV transmission line, they knew to call Quanta. Using a combination of energized services including the LineMaster™ and barehand techniques, Quanta finished the project in less time than possible with traditional methods. Utilization of energized services increased the client's bottom line and reliability. Also, this unique capability allowed electric service and power production to continue as work progressed. Another day, another satisfied customer for Quanta.



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