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ComEd Visits Lazy Q

In February 2017, MJE’s Tom Nagy, John Holtz, and Joe Mahoney hosted nine executives and leaders from ComEd at Quanta Services’ Lazy Q Ranch to visit its world-class training facility located near LaGrange Texas. Guests from ComEd included Michelle Blaise (Senior VP of Engineering and Project Management), Michele Dybel and Mike Great (Project Management), Dan Brea (Substation Construction), Mark Baranek (Transmission Construction) and other ComEd attendees from construction, project management and training. The group received a full tour of the facility including the underground splicing training center currently under construction and the lineman training school that is in the process of becoming certified with Sam Houston State University. The purpose of the visit was to discuss and witness the extensive effort and the high standards that Quanta places on safety and training, particularly the energized services training. To demonstrate the energized services equipment and methods, most attendees suited up and ‘bonded on’ to the energized 345 kV line in the training yard. The ComEd participants were able to experience the deliberate and rigorous process the energized crews use for every task. As a result, a greater appreciation for the commitment to safety during energized work was obtained.

In 2016, M. J. Electric had the opportunity to perform energized repair tasks for ComEd for overheated line splices, an overheated generating station disconnect switch, and a broken 34 kV bus in a substation. Due to their visit to Lazy Q, new perspectives were gained on how energized methods can successfully be applied to non-emergent projects through coordinated planning using a cost effective approach. Currently, ComEd and M. J. Electric are in the process of working on an energized solution for installation of some suspended dead ends for a NERC Clearance project.

The John R. Colson Training Center was designed, built, and developed by John Colson, one of the founders of Quanta Services. John’s initial thought was to provide the best hands-on training facility for use by all Quanta Operating Companies to maintain and hone the skills and methods required for Quanta’s industry leading Energized Services program.

The facility has grown and expanded beyond John’s impressive original vision. Completed in July 2015, the John R. Colson Training Center provides advanced skills training and certifications for Quanta employees in electric power and pipeline construction. The hands-on facility features world-class curricula for the respective areas of specialty which are administered through partnership with local education institutions. Quanta also hosts industry “Best Practice” sessions with customer groups.

M. J. Electric is grateful for the hospitality of John Colson and the rest of the staff at the Lazy Q who made the experience very worthwhile for our ComEd guests. MJE intends to have more customers visit Lazy Q in the future.
MJE NEWS

QA/QC Non-Conformance Reporting

As a part of our ever-growing quality initiative, M. J. Electric (MJE) has implemented a Non-Conformance Report (NCR). Non-conformance reporting identifies potential quality issues and results in a corrective action plan to prevent the situation from reoccurring. MJE shares the plan with the appropriate project crews as well as all MJE divisions to use as a lessons learned. The goal of non-conformance reporting is to understand what happened and how to correct the situation which helps everyone become more successful.

The NCR is a major part of MJE’s Quality Management System. MJE is committed to strengthen quality at every level. We hold fast to our beliefs and operating principles to continually raise our industry’s expectation. MJE’s goal is to meet or exceed project quality requirements and always “build it right the first time”. It’s MJE’s policy to meet this goal through quality work plans, with quality workmanship, products, and services; we monitor our performance against these objectives.

New Joliet Office

MJE recently opened an office location near Joliet, Illinois. This office location provides the Industrial Power & Controls Division an opportunity to expand its presence in that region providing services for Oil, Gas, and Steel Markets, Light Industrial, Service Work, and Power Generation. Contact information for the Joliet Office can be found at www.mjelectric.com/location or call 224.777.4027.

Polar Plunge

Lake Michigan can be a wonderful place to cool down on a warm summer day. On the other hand in March, with a water temperature of 39 degrees Fahrenheit, there aren’t many who want to brave the frigid waters. Yet the Commonwealth Edison (ComEd) Coolers Team bravely took the Polar Plunge to raise money for Special Olympics.

On March 5, 2017 the entire ComEd team, made up of multiple companies including M. J. Electric, enthusiastically ran into the water. Last year, Joe Mahoney’s team from MJE’s Midwest Region Office raised over $8,000 and increased this year’s goal to $10,000. The Coolers Team bypassed this goal and ended up raising $11,001 making them the 4th highest fundraiser! Of all the companies that competed, ComEd lead the fundraising efforts raising a total of $270,000 for Special Olympics. MJE is proud to be part of such a worthy cause.

Employee Returns from Iraq

MJE is proud to welcome back Field Safety and Health Coordinator Harold Ramirez from his deployment to Iraq as an US Army Reserve Combat Engineer. Specialist Ramirez was deployed in support of Operation Inherent Resolve, a multi-national coalition, and volunteered to serve with the 863rd Combat Engineer Battalion providing security and support to operations in Iraq. He was greeted by his family at a small ceremony held at Midway Airport in February where he stood front and center in the battalion formation carrying the unit’s flag. He and his father Jason work out of the Crown Point, Indiana office as Field Safety and Health Coordinators.

M. J. Electric would like to thank all our veteran employees and all veterans of the U.S. military for your sacrifice and your continued service.
El Cabo Wind Farm Underground Collection System

PAR Electric awarded M. J. Electric the El Cabo Wind Farm Underground Collection System project in Encino, New Mexico. Comprised of more than 243,000 feet of underground collection through rocky terrain, El Cabo Wind Farm has challenged MJE Renewables to redefine methods of trenching while ensuring both quality and safe production methods remain paramount. Trencher 1360 trenchers tear through rocky terrain and are followed by Ozzie’s Padders, which screen and backfill native material into the trench. Through GPS guidance, MJE cable plow will make the final pass while installing collection cable into the existing trench. Last year, MJE teamed with PAR and Avangrid (formerly Iberdrola) to construct Desert Wind in Hertford, NC. A combination of quality work and safety by MJE and PAR Electric has led both Quanta Services companies back to complete El Cabo Wind Farm. This 298 MW wind project consists of 142 Gamesa turbines, each rated at 2.1 MW and is scheduled for completion Fall 2017.

Marengo Battery Storage Project

M. J. Electric (MJE) has subcontracted Dashiell and Electric Power Engineers (EPE) to provide the geotech analysis/design and balance of plant design for the installation of the 20 MW Marengo Battery Storage Facility in north central Illinois. The project includes foundations, grounding, below ground and above ground raceway, cable, control house, electrical, protection, and SCADA. The substation contains nine 2.6 MVA battery banks and is connected to an adjacent utility substation via a 4,000 foot underground 34.5 kV tie line. The owner is providing the integration software and programmable logic controller to control all of the equipment at the site as well as the designs for the battery enclosures and control building. MJE is leading the team for Leclanche, the overall EPC provider who will provide the batteries. Based in Switzerland, this will be Leclanche’s first U.S. storage project. This facility, owned by Swiss Green Electricity Management Group, will deliver 10 megawatt-hours of energy to provide PJM real-time frequency response.

MJE DRILLING

Reynolds to Topeka Foundations

MJE Drilling was requested by PAR Electric to supplement their subcontracted crews in constructing drilled pier and direct burial foundations for a hundred mile stretch of transmission line between Reynolds and Topeka, Indiana. MJE Drilling will be installing 32 drilled piers and 19 direct burials. The drilled piers are 8-12 feet in diameter and 30-58 feet deep and the direct burial excavations are 8-9 feet in diameter. Crews are also setting the direct burial pole base and backfilling with concrete.
8th Street Substation and Distribution EPC

MJE was awarded an engineering, procurement, and construction agreement to construct a new 138/12 kV substation located in Lehigh County, Pennsylvania. The substation consists of one Powell type switchgear building, two 138 kV transformer circuit breakers, two 138 kV line breakers, and two 138 kV – 12 kV 34 MVA load tap changing transformers. The switchgear building contains cubicles to hold six 12 kV feeder circuits in a double breaker double bus and two 12 kV main circuit breakers from the load side of the 138 kV – 12 kV transformers for a total of fourteen 12 kV breaker positions. The switchgear building shall house relay panels for 138 kV line protection, 138 kV transformer protection, and communications. In addition, construction included six 12 kV distribution lines from the 8th Street 138/12 kV Substation to multiple lines, as well as manholes and conduit. The six distribution lines are designed to meet a minimum summer normal ampacity of 500 A. The project began late 2016 and will be complete by the end of 2017.

Distribution Osmoses Pole Replacement

M. J. Electric is now entering the third year of a five-year distribution agreement with Xcel Energy. Under the scope of this agreement, M. J. Electric’s Minnesota Office is currently conducting Xcel Energy’s yearly pole replacement program in the Twin Cities metro region. Over the course of this agreement, additional scopes of work have included providing distribution maintenance, repairs, upgrades, new installations, and storm restoration. MJE furnishes services to Xcel Energy throughout their service territory in Minnesota, North Dakota, South Dakota, and Wisconsin. MJE crews working on this contract are committed to safety and reliability. A strong working relationship between Xcel and MJE has resulted in progressively improving performance over the course of the alliance.

Fox Lake to Rutland Transmission Line

The 161 kV circuit of International Transmission Company’s Fox Lake to Rutland 345/161 kV Transmission Line is now complete. Fox Lake to Rutland, located in Martin County (MN), is approximately 14 miles of double-circuit line and is one of three line segments which will connect the existing ITC Lakefield Substation to the new ITC Huntley Substation. The majority of the new line follows an existing 161 kV transmission line. The 345 kV circuit started in June 2016 and finished in January 2017. The 345 kV circuit of the line is still under construction.

Chariton to Corydon Transmission Line

In February, MJE completed the Chariton to Corydon Transmission Line project in Wayne County, Iowa. Construction included approximately 18 miles of new single-circuit 69 kV transmission line with T2-Penguin 2-4/0 ACSR, and DNO-6071 OPGW fiber optic static wire. The scope of work also included the retirement of 18 miles of existing 69 kV single-circuit monopole wood structures.
Gemma Power Systems awarded M. J. Electric, LLC (MJE) and Process Controls & Instrumentation (PCI) the above ground and instrumentation construction for the Middletown Energy Center located in Butler County, Ohio. The 470 MW natural gas-fired power plant will be equipped with a Mitsubishi Hitachi Power Systems Americas M501GAC combustion turbine generator, along with a VOGT Power International supplementary-fired heat recovery steam generator, combined with a Toshiba America Energy Systems steam turbine generator.

Construction includes cooling tower, water treatment, and electric building cable tray installation. Installation of cable tray in Trencha system, equipment grounds, and lighting fixtures. Crews are providing installation and termination of cabling, LV power, communication, and instrumentation wire and cables. Lastly, MJE and PCI will perform equipment setting, chemical feed, water treatment, and commissioning support. The project is scheduled for completion in late September. MJE is using Electricians from Local Union 648 and Pipefitters from UA 392.
Dubuque 8th Street to Salem Substation

International Transmission Company awarded M. J. Electric, LLC (MJE) the construction of the Dubuque 8th Street to Salem Transmission Line project in Dubuque County, Iowa. This project is split into two phases.

Phase one will replace approximately 7 miles of 3/8" EHS shield wire with DNO-6389 OPGW shield wire on an existing 161 kV transmission line from Dubuque 8th Street Substation to Salem Substation. The existing line has wood H-frame structures, tubular steel structures, and lattice towers. Four steel structures will be installed at the Dubuque 8th Street Substation.

Phase two involves construction of three new transmission lines:

- A new double-circuit 161 kV / 69 kV transmission line on eight steel monopole steel structures between Str. 28 and Str. 3.
- A new single-circuit 161 kV transmission line on twenty six steel monopole structures between Str. 35 and Salem Substation.
- A new single-circuit 69 kV transmission line on three monopole steel structures between Str. 35 and Str. MC-39.

The 69 kV lines will use T2-4/0 conductor with 3/8 EHS shield wire and the 161 kV line will use T2-795 Drake conductor with OPGW shield wire. The top phase of conductor will be E3X coated. MJE Drilling recently completed the foundation portion of this project installing three direct imbeds and four drilled pier foundations. The project is scheduled for completion in March 2017.

Cricket Valley Transmission Line and Reconductor EPC

M. J. Electric, LLC entered into an engineering, procurement, and construction (EPC) agreement to construct a new 345 kV overhead transmission line parallel to Consolidated Edison’s (Con Ed) existing 345 kV Transmission Line 398. The line spans approximately 14 miles from the Cricket Valley Switchyard to ConEd’s Pleasant Valley Substation in Dutchess County, New York. The new circuit will use steel monopole structures with bundled 795 Aluminum Conductor Steel Supported (ACSS) Mallard conductors, a single 7 #5 shield wire, and a single AFL AlumaCore Optical Ground Wire (OPGW) AC-102/691 wire cable with 72 fibers. The project also includes reconductoring approximately 3 miles of the existing 345 kV Transmission Line 398. Engineering began mid-December 2016 and the project will be complete in January 2018.
Holland Energy Center

M. J. Electric, LLC (MJE) and Process Controls & Instrumentation, a division of MJE, have completed construction on the Holland Energy Center located in Holland, Michigan. The 125 MW 2x1 combined-cycle plant is owned and operated by the Holland Board of Public Works. MJE was contracted by Barton Malow, the EPC contractor for the project.

Phillips 66 Refinery

M. J. Electric, LLC (MJE) has completed work at the Phillips 66 Refinery located in Yellowstone County, Montana. Crews from the Industrial, Power & Controls Division and Process Controls & Instrumentation have been on site since June 2016. Scope included raceway installation, cable/wire pulling, cable/wire terminations, equipment setting, grounding, lighting system, instrumentation install, air piping & tubing install, and the testing/check out of installations.

Lordstown Energy Center

Kokosing Industrial, Inc. awarded M. J. Electric’s Industrial, Power & Controls Division the iso phase construction scope for the Lordstown Energy Center (LEC) located in Trumbell County, Ohio. The iso phase scope for the new 940 MW natural gas-fired combined cycle power plant includes installation of STG and CTG1 Iso Phase Bus, GSU and UAT installation, and CTG & STG Terminal Bushing Installation.

In addition, other MJE divisions have been involved with construction at the LEC project. MJE Utility Division crews have been on site as part of an engineering, procurement, and construction (EPC) contract for the construction of two 345 kV switchyards and an interconnecting transmission line between the two facilities. MJE Drilling recently completed 226 drilled pier foundations with five breaker pads in the switchyard and 165 drilled pier foundations with four breaker pads in the collector yard and is currently demobilizing from the site.

Tallgrass Energy Stations

Completed stations are located in South Central Ohio in Fayette Counties.
Shakopee Distributed Generation Facility

Process Controls & Instrumentation (PCI), a division of M. J. Electric, LLC, completed the instrumentation installation on five Wartsila reciprocating engines at the Shakopee Distributed Generation Facility located in Scott County, Minnesota. Construction began October and completed in December 2016.

Marquette Energy Center

PCI is performing the instrumentation installation for three Wartsila 50DF dual fuel engines at the Marquette Energy Center located in Marquette County, Michigan. Construction began in late January and will be complete mid-April.

Oregon Clean Energy Center Instrumentation Complete

PCI completed the instrumentation work at the Oregon Clean Energy Center (OCEC) in Lucas County, Ohio. PCI was contracted by Black & Veatch to perform the calibration, installation of instruments, air supplies, process, sample, and chemical injection tubing at OCEC. The overall project is set for completion in July 2017. Once complete, the 869 MW facility will provide electricity for growing manufacturing and residential use. OCEC will replace generation due to the retirement of several aging coal-fired power plants in the region.

St. Clair Compressor Station

Last year, PCI was awarded the instrumentation portion of Consumer Energy’s St. Clair Compressor Station (Plant 1 and 2) project in St. Clair County, Michigan. Construction included the addition of four new reciprocating engines/compressors which were installed in a new facility referred to as Plant 3. Plants 1 and 2 are fully integrated with Plant 3 allowing complete operational flexibility from any of the three plants to any of the six St. Clair injection fields or gas pipelines. In addition, controls and valves were updated enabling either plant operation on site or remote operation from the control facility located in Jackson County, Michigan. Construction began May 2016 and crews will demobilize later this Spring.

Process Controls & Instrumentation

PCI provides complete installation services for any instrumentation and control project in the heavy industrial, refinery, mining, and pulp and paper markets. We provide a full range of technical and project management services to assist our customers in instrumentation design, configuration, calibration, and installation for new construction, upgrades, or maintenance.
Oak Grove Substation

In February 2017, Aldridge Electric contracted MJE for electrical remediation work on PEPCO’s Oak Grove Substation in Upper Marlboro, Maryland. Due to clearance issues, 69 kV and 13 kV circuits had to be moved and altered due to the installation of a taller security fence around the entire substation. Work included removal and reconstruction of old conductor, installation of new poles, conductor, underground bus modifications, and terminations.

Robison Park 345/138 kV Substation and Foundations

The Robison Park Substation project is energized. M. J. Electric, LLC (MJE) completed this project for American Electric Power located in Fort Wayne, Indiana. The project consisted of over 100,000 man-hours and 24 outages over the course of 30 months to completely rebuild and energize the stations. The scope included installing a new eight bay 138 kV station, two 12 kV distribution stations, one 69 kV feeder station, and modifying the existing 34 kV and 69 kV stations. After completing the first station, the crew moved to the 345 kV yard and added two bays, rebuilt one bay, replaced the 345 kV transformer, and removed the remaining old bay. MJE transmission line crews installed all new entrance spans into both stations. Crews are currently removing the old 138 kV station and all crews will be demobilized in May 2017.

MJE completed construction on the Osborn Collection Substation and Ketchum Switchyard in DeKalb, Missouri. Both the switchyard and substation are a part of NextEra’s 200 MW Osborn Wind Farm.
Commitment Coin

A Quanta Commitment Coin has been awarded to IBEW Local Union 876 member and MJE Substation General Foreman, Christopher Comps, for his dedication to safety. While working on an MJE project, he discovered that several outgoing line disconnect switches at the substation were tagged but left unlocked. Chris took the initiative to notify the power company of his concern and locks were installed.

Chris believes it is very important that potential safety hazards like these are discovered and communicated to everyone. He has certainly learned from other good catch reports and hopes this catch can help others learn as well. If not for Chris’ focus on safety, someone could have been seriously or fatally injured. His leadership and dedication are a testament to both him and his commitment to safety.

Perfect Record Award

Congratulations to MJE Leasing and Iron Mountain’s Tool Control for achieving the National Safety Council’s Perfect Record Award. This award was given for operating 561,444 employee hours without an occupational injury or illness involving days away from work from June 13, 2012 to January 23, 2017.

CPR and First Aid Training

MJE offered CPR and First Aid training on February 1-2, 2017 in Iron Mountain.