



O'Connell Electric Company

A Hundred Years of Industry Leadership and Innovation

Legacy

In 1968, Walter T. Parkes purchased O'Connell Electric, determined to pursue unique, challenging projects. His philosophy for calculated risk-taking laid the foundation for the diversified company we are today, fostering a corporate culture that supports innovative thinking and strategic action. Our progressive approach differentiates us from the competition.

"We love to tackle the most challenging jobs. Although there are greater risks, there are also greater rewards, if you do them properly."
—Vic Salerno, CEO

Leadership

O'Connell's pursuit of innovation puts us at the forefront of renewable and alternative energy technologies—nuclear in the '70s, hydro generation plants through the '80s, Landfill Gas to Energy (LFGTE) since the mid '90s, and now wind and solar. In fact, we are a leading solar energy solutions provider in the northeast.

Experience

O'Connell is no stranger to industry firsts—bringing wind-generated power to the grid is no exception. We started in the late '90s with the first three commercial wind farms

in New York. In 2007, we installed and tested the first commercial application of Clipper 2.5 MW Liberty wind turbines in the U.S. To date, we've applied and refined our diverse expertise at 14 wind farms containing 775 turbines, generating up to 1250 MW of power.

Diversified

O'Connell's strength as a full-service electrical contractor is rooted in the diversity of our services. For wind farm construction, this translates into turnkey solutions which span substation construction, testing and commissioning, collection and transmission systems construction, fiber optics installation, and tower wiring. O'Connell is uniquely efficient at point of interconnect resolution. Our people are highly skilled in complex areas. Our tooling and equipment are second to none. Even our competitors call on us for our specialized work.

Stability

O'Connell has weathered tough business climates before. Our corporate bonding capacity now exceeds \$180 million. In the last 40 years, O'Connell has provided more than \$1 billion of electrical services to its customers and today we are ranked among the top 50 largest electrical contractors in the nation.

Tower Wiring & Fiber Optics

Completing O'Connell's turnkey solution package for wind farm electrical construction are the wind turbines.

Electrification

O'Connell boasts nearly 100 years experience electrifying structures of all kinds—industrial, commercial, institutions, airports, and bridges—from the service bus to all electrical fixtures, switches, instrumentation, and machinery. Our wind turbine tower wiring experience dates back to the first wind farms in New York State.

Communications

Turbine performance and weather data are critical to operating, maintaining, and managing a successful wind farm. Our fiber optic expertise has enabled us to accomplish successful communications installations at a variety of wind farm projects—miles of cable with thousands of terminations. Our technicians and managers are dedicated communications professionals.



Safety on The Job

At O'Connell, safety is job one. We continue to be leaders for change affecting the safety culture within the electrical construction industry. Our Safety Managers execute in-house training programs, develop site-specific safety plans, and conduct regular inspections at all project locations. They also work in conjunction with other site contractors to ensure that consistent safety practices are being followed throughout. As a member of the National Electrical Contractors Association, O'Connell leverages NECA's tried and true electrical safety processes and extensive resources to even better protect project workers, users, and occupants.

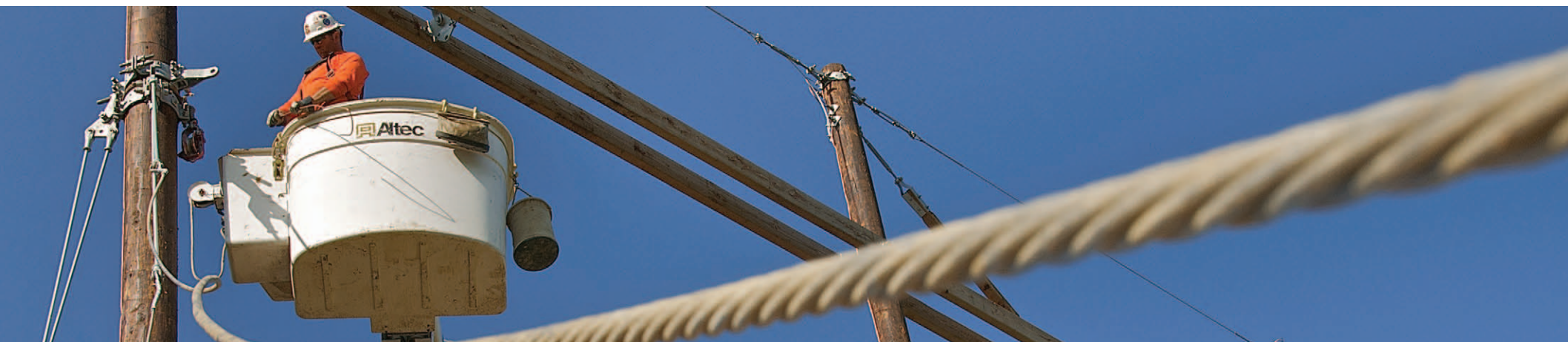
Contact O'Connell Electric

Renewable Energy Division—Wind
Mike Nowicki, Business Development Manager
Direct: [585] 704-4548
Email: Mike.Nowicki@OConnellElectric.com

**Technical Services Division—Testing/Commissioning/
Maintenance/Emergency Response**
Joe Leggo, General Manager
Direct: [585] 370-8194
Email: Joe.Leggo@OConnellElectric.com

1 [800] 343-2176
www.OConnellElectric.com





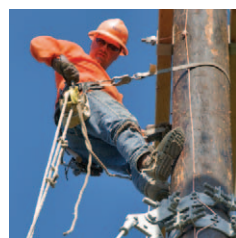
Power Collection Systems, Transmission & Distribution



Services

O'Connell's power line services are impressive—medium to high voltage, overhead/underground, collection, transmission, and distribution systems construction. In the field, that translates to site clearing and development, pole setting and framing, wire-stringing and cable-pulling, conduit and manhole systems, splicing and terminations. Combine that with our substation/switchyard construction and testing/commissioning capabilities and you have a fully integrated, end-to-end solutions provider.

Experience



O'Connell recently concluded a \$115 million design/build EPC transmission/substation joint venture partnership project in Upstate New York. The project included construction of 34.5KV and 115KV transmission lines (50 circuit miles of underground and 40 of overhead), nine substation upgrades, and the construction of two new substations. On a Westchester County project for NYSEG, O'Connell

constructed six miles of overhead 46KV lashed aerial cable transmission line and an open wire construction across New York City commuter traffic on Interstate 684.

Performance

O'Connell installed the overhead collection systems for Cohocton's 50-turbine, 180 MW wind farm project in New York's Finger Lakes Region. Additionally, we constructed the site's two transmission substations, POI switchyard, and nine miles of overhead transmission line that connects them. O'Connell's extensive fleet of all-terrain track vehicles and custom equipment made navigating the region's challenging landscape manageable.

Engineer Procure Construct

We provide turnkey solutions for large transmission and distribution projects. O'Connell's project management applications across diverse electrical disciplines, combined with our breadth of general contracting experience, sets the stage for our managed EPC approach. Add to the mix our established relationships with engineering and supply integrators, and our EPC process is guaranteed to keep your project on schedule, on budget, and safe.



Acceptance Testing, Commissioning & Preventative Maintenance

Services

O'Connell's Technical Services Division applies their expertise to all aspects of the wind farm electrical system—point of interconnect, collection systems, substations, transformers, and tower wiring. They provide engineering design, reliability analysis, functional testing, acceptance testing, start-up/commissioning, preventative maintenance, and emergency service. The result is always an efficient, safe, reliable system completed on schedule and within budget.

As a Doble Engineering client, we have access to the industry's most sophisticated diagnostic test equipment as well as 25 million test results on over 100,000 types of apparatus. O'Connell is also a member of TEGG, an international network of electrical contractors. This assures that our technicians and management teams are current on the latest preventative maintenance training, certifications, and equipment necessary to maintain the highest level of electrical systems reliability. With O'Connell, you'll never be left in the dark. Our emergency response team stands ready 24 hours a day, 7 days a week.

Experience

As part of a large power generation decommissioning project, O'Connell was contracted to perform testing and commissioning at eleven active substations. Utilizing Doble 3-phase power simulator, satellite, and GPS technology, we synchronized and simultaneously tested substations across the region while maintaining power at all times. O'Connell also performed acceptance

testing across 50 circuit miles of underground 34.5KV cable for the project.

Performance

O'Connell tested and commissioned all 230KV ring bus substation protective, control, and supervisory equipment at the 84-turbine Wethersfield wind farm to ensure it met design and system requirements. Our complete functional testing of the substation included end-to-end line testing back to the wind farm's collection substation. Our commissioning team identified potential substation design errors that were corrected in time to protect the schedule to bring the system online.

Value

What started as a small condition assessment job on a retired substation led to full electrical construction services on Steel Winds, a wind farm now standing on the abandoned brown-field site of a large steel mill. O'Connell's diagnostic results, along with substation design/modification recommendations, convinced developers we were the right company for the job. We repaired and modified the existing substation to accept power generated by the wind turbines, installed the underground collection systems and overhead transmission lines, wired the towers for power, and ran fiber optics for all data communications. Then, O'Connell wrapped up the project right where it all began—at the substation—by providing final systems acceptance testing and commissioning. Today, we provide preventative maintenance services to the new site owners.

Substations, Switchyards & Point of Interconnect (POI)

Services

O'Connell's substation and switchyard construction services form the foundation of power generation and transmission connectivity for distributed generation wind farm projects. Our breadth of experience working with public utilities and municipalities uniquely qualifies us to meet the challenges that can derail a wind project, including the critical point of interconnect (POI).



Experience

Our substation work dates back to 1932 when the Winter Olympics first came to Lake Placid. In 1980, we were back as prime contractor, re-energizing the entire village and all sports venues for their second Olympics. We built two new 115KV substations and upgraded the existing systems while our power line group took on the rugged terrain and steep granite faces of Whiteface Mountain. Today, our substation/switchyard projects number in the hundreds, spanning diverse applications across public utilities and private interests, including 14 commercial wind farms in New York, Pennsylvania, and West Virginia.

Performance



For the 75-turbine Sheldon wind farm project in Upstate New York, we delivered on our promise to the developer and gave them point of interconnect functionality within ten months—that was four months less than the competition was selling. Part of our success rests in the speed with which we can obtain utility approval.

Engineer-Procure-Construct

O'Connell provides professionally managed turnkey operations for wind farm substation and switchyard facility installations: design/build, obtaining required approvals, site development, foundations and structural steel, control house construction, equipment procurement and installation, grounding systems, power generation and transmission connectivity, and testing/commissioning. Our experience and capabilities ensure your project will meet all schedule, cost, and performance requirements.

