

Providing engineering and infrastructure support services to the utility industry...

### on budget, on demand, and on time.



- > Distribution Design
- > Electric Distribution Design
- > Gas Main & Service Design
- > Storm Hardening Design
- > Electric Transmission & Distribution Inspection
- > Gas Main & Service Inspection
- > Storm Damage Assessment
- Software Apps field asset inspection, construction inspection & line design
- > Work Orders
- > Estimating



# Who We Are

Since 1995, Wagner Technical Services Inc. has been providing quality-assured support services to serve the needs of the utility industry, both utilities and contractors. Our clients include Northeast Utilities, Orange & Rockland Utilities, Central Hudson Gas & Electric Corporation, United Illuminating, and New York Power Authority.

With our experienced staff, advanced in-house technology, deadline and detail dependability, we are a smart choice for utilities looking to outsource technical projects. We have effectively completed thousands of projects, large and small, including electric and gas distribution design work orders, inspections, and software applications for the utility clients and industry contractors, for whom we are privileged to serve.

Our mission is to provide our clients with cost-effective, reliable, and high quality alternatives to performing work in-house by deploying our experience, expertise, and "own the project" commitment, so as to meet or exceed their expectations.

### What We Do

- > Work Order Packages for Electric Distribution Projects
- > Storm Hardening
- > Gas Distribution Design and Inspection
- > Cable TV and Fiber Make-Ready Design
- > New Services, Overhead and Underground
- > Storm Damage Assessment
- > Underground Residential Distribution (URD) Design & Inspection
- > Electric Transmission Inspection
- > Plant Relocations for State, County, and Municipal Projects
- > Electric Underground and Networks

NOTE: Please visit our website (www.wagnertech.com) to learn more about our services.

#### **Electric Transmission Inspection**

In addition, we perform ground based visual inspections, ground resistance testing, and stray voltage testing with four-wheel drive ATVs. Our inspectors are trained in the latest equipment, including the Fluke ScopeMeter, Fluke Multimeter, and Earth Ground Meter. They utilize NextGrid<sup>™</sup> Asset Inspector, our proprietary software package, that tracks defects found and provides online asset mapping and reporting for management and regulatory compliance.





Our sister company provides oversight of field construction, including gas mains, distribution improvement projects, cast iron main replacements and services. We ensure that work is done in full compliance with the owner's standards, contract specifications, and any permit stipulations that may apply.

All Wagner inspectors have passed operator qualification testing by the Northeast Gas Association and are certified plastic fusion inspectors. We ensure that excavators comply with Protection of Underground Facilities requirements. We use NextGrid<sup>™</sup> Field Inspector to track inspections and make reporting available online.





This sister company is our software development division. We have developed and field-tested the NextGrid<sup>™</sup> work management system to ease and expedite labor and materials estimates. It includes NextGrid<sup>™</sup> Field Inspector (user-friendly record keeping); NextGrid<sup>™</sup> Infrastructure (for ongoing inspections of plant assets); and NextGrid<sup>™</sup> Line Designer (an electric distribution design tool, scheduled for release in 4Q, 2014).



# **PROJECT PROFILES**

## What We've Done

#### **Storm Hardening**

A client with a number of distribution circuits, that were particularly vulnerable to storms, engaged Wagner Technical to evaluate the circuits and design a rebuild. Our detailed field analysis discovered such issues as inadequate fuse and recloser protection, over-length spans, under-classed poles, inadequate guying, potentially hazardous tree conditions, inadequate lightning protection, many defective poles, and a generally outdated plant. We redesigned the lines and prepared work orders and drawings to rebuild the circuits to current standards. *BENEFIT: A substantially more resilient system*.

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#### System Wide Electric Distribution Improvement

Seeking to improve service reliability, a utility wanted to begin a large scale distribution improvement program. Lacking adequate in-house resources to prepare work orders on schedule, they contracted Wagner Technical to perform the work. Projects included reconductoring, recloser installation, conversions, and switch installations.

BENEFIT: The five-year program was a success, and the utility effectively met its construction goals.

#### **Gas Main Expansion Design and Inspection**

A client was expanding its natural gas distribution system at a rapid pace. They had a large number of contractors installing new mains and services and did not have adequate inspectors to assure that the new plant was being built to their standards and that tests were being properly performed. Wagner Technical was hired to design the expansion project, including drawing, bill of materials, and estimates. Our sister company Wagner Energy Services Corp. provided inspectors utilizing the NextGrid\* Field Inspection application for online reporting and issue tracking.

BENEFIT: We provided the inspection personnel as needed, thus averting costly delays or staff additions.

### Large Scale Distribution Voltage Conversion

A large electric utility was eliminating a medium-sized 4.8kV substation and resupplying the area with new circuits from an existing 13.8kV substation. Wagner Technical assigned four technicians to the job which involved reconductoring, new switchgear, transformer replacement, and over 800 poles. The client's engineering department gave us the scope of the project, and we performed the pole-by-pole detailed design work.

BENEFIT: We completed the work order packages for the construction crews in time to meet our client's construction schedule.

### **Stray Voltage Data Management**

A New York-based utility wanted to implement a stray voltage testing program to comply with new public service commission regulations. They were under a tight deadline and there was no commercial solution available. We developed a custom software package using mobile devices to collect inspection data and GPS coordinates. We then managed the data and provided the utility with reports and mapping to satisfy their internal requirements, as well as the public service commission's reporting requirements. *BENEFIT: Compliance achieved via a customized software solution*.

#### **Storm Damage Assessment**

After a major storm, our client hired us to help assess the storm damage. Since our technicians are experienced in design, they were able to recognize problems and create material lists and detailed descriptions of what caused the outage, so that line crews could later go to the area with the proper equipment to restore power to their customers.

BENEFIT: We enabled our client to restore service more quickly.

#### **Underground Network Rebuild**

A rapidly expanding downtown area was taxing our client's underground electrical network. Our challenge: to design a new network to meet the demand. At the same time, the city was updating their infrastructure. We worked with city engineers and engineering staff from other utilities to help completely rebuild the city's infrastructure.

BENEFIT: This major rebuilding project was completed as budgeted and scheduled.

Please visit our website www.wagnertech.com for more details.



# Since 1995, Wagner Technical has:

- > Prepared work orders for more than 60,000 distribution poles
- > Performed more than 40,000 transmission structure inspections
- > Inspected more than 500,000 distribution structures
- > Developed custom software to automate work order creation
- > Developed custom software to interface with our clients' work management systems









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