

Composite Poles Withstand Texas Tornado

Resin Systems Inc. (www.grouprsi.com), a manufacturer of advanced composite products for infrastructure markets, announces that its RStandard poles have withstood an important field test in Lajitas, Texas—a direct hit by a tornado. In spite of high winds and swirling debris, the RStandard poles demonstrated their worth and capability in hardening the Rio Grande Electric Cooperative Inc. (RGEN; Brackettville, Texas, U.S.) grid. RGEN maintains over 9400 miles (15,178 km) of distribution line and 143 miles (230 km) of transmission line in west Texas and southern New Mexico comprising an area over 27,000 sq miles (69,930 sq km).

Dan Laws, general manager and CEO for RGEN, stated, “A tornado touched down in Lajitas on Oct. 7. Several homes in the area had roofs ripped completely

off. We had padmounted transformers and junction boxes swept completely off their pads. We lost eight 40-ft (12-m) Class 3 wooden poles on our brand new Study Butte-Lajitas 34.5-kV 3Ø line. These were snapped off like toothpicks 2 ft (0.6 m) above the ground. RGEN Operations reported that the RStandard composite poles that we installed in this area ‘did not budge at all.’”

Even before the tornado struck, RGEN was already considering the purchase of additional RStandard poles for several projects because of their favorable previous experience installing RStandard poles. Obviously, the RGEN is now even more impressed with RStandard composite pole technology.

“If we could afford to replace all our poles tomorrow with the RStandard pole, we would do it given the increased



Rio Grande crews installing a large diameter three-module RStandard pole that obviates the need for guy wires. Note the relatively small equipment needed for the direct bury installation. (Photo by Patrick Harris, RS Technologies.)

strength, durability and reliability that we believe these poles would provide,” said Larry T. Powell, director of engineering for RGEN.

Public Service Company of New Mexico Builds a Reliable Network with AutoCAD

Software from Autodesk Inc. (www.autodesk.com) is helping the Public Service Company of New Mexico (PNM) provide reliable electric service to the citizens of New Mexico. PNM relies on the 3D capabilities of AutoCAD software and custom applications built on AutoCAD to update and retrofit existing power infrastructure, and create 3D visualizations to educate the community about upcoming projects.

PNM is the largest investor-owned electric utility in New Mexico and serves 498,700 customers across the state. PNM has been supplying power to the Southwest since 1917 and currently serves more than 3635 sq miles (9415 sq km). Because of the vast size and consistent growth of PNM’s network, engineers are consistently adding new and upgrading existing infrastructure.

“The type of engineering we do is very complicated and specific. To do that work efficiently and accurately, we need a design tool that enables us to work in 3D, while also being flexible and customizable,” said Gathen Garcia, technical systems manager, PNM. “We have used AutoCAD since 1982, and we have created several applications on top of it that enable us to work smarter and faster, while letting our engineers focus on the design process.”

PNM has developed an application specific to the electric utilities industry, 3D-DASL. This purpose-built application builds on existing AutoCAD 3D capabilities and adds customized standards for substations and switch stations so that PNM engineers can focus more on the design process and less on mundane details. With 3D-DASL, engineers can update legacy drawings using the 3D capabilities of AutoCAD to give construction crews a clearer picture of the new design in relation to the existing structure. Since engineers are adding to an existing design, there is no need to recreate the project in 3D, improving efficiencies—time and money—for PNM and construction crews.

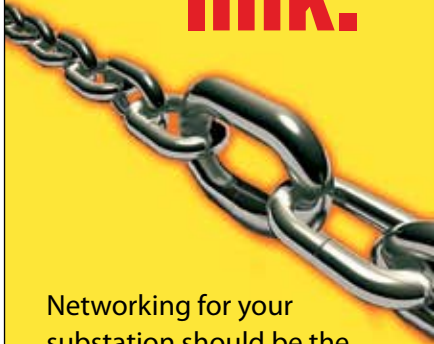
Siemens to Expand HVDC Link in New Zealand

Siemens Energy (www.siemens.com) has received an order from Wellington-based Transpower New Zealand Ltd., the national grid operator, to modernize and increase the capacity of the existing high-voltage direct-current (HVDC) link between the country’s North and South Island.

For the “Inter Island Connector Pole 3” HVDC project Siemens will supply two 700-MW turnkey converter stations and replace the aging converters with advanced light-triggered thyristor valves. The overall project investment is 327 million euros. Siemens’ share accounts for approximately half.

The aim is to raise the capacity of the existing HVDC system in increments over the next few years from 700 MW to 1400 MW. This is intended to ensure reliable power supply with minimal losses and to further stabilize New Zealand’s grid. Siemens will complete modernization and expansion of the system by late 2013.

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TECHNOLOGY Updates

» NRTC Supports Electric Cooperative Members by Adding Clevest Solutions

The National Rural Telecommunications Cooperative (www.nrtc.coop) has signed an agreement with Clevest Solutions Inc. (www.clevest.com) to offer the company's products and services to its rural utility members. Through this agreement, NRTC members will have access to Clevest's Mobile Field Force solutions and smart grid deployment software.

"NRTC's electric cooperative members are continually looking for ways to improve operational efficiency," said NRTC Vice President of Utility Solutions Edward S. Drew. "NRTC selected Clevest's Mobile Field Force and smart grid deployment solutions because they help improve the efficiency of utility operations and integrate well with a wide range of existing technologies. No matter what you have deployed, you can integrate it with a Clevest solution to improve operating efficiency."

The Mobile Field Force Optimization Solution enables field forces to interact with dispatchers and in-office systems on a real-time basis, streamlining work processes and reducing the time required for scheduling work and dispatching crews. The application can improve productivity through automatic vehicle location, scheduling and dispatch as well as reporting. NRTC members can purchase the modules separately or combined, based on need and budget.

Clevest's smart grid deployment software improves the efficiency, speed and safety of advanced metering infrastructure deployments. The software reduces customer dispute billing caused by meter changeout and helps to ensure the safety of staff when working with live meters.

"The Clevest product line complements NRTC's mission to strengthen business operations and its long-time focus on helping cooperatives operate more efficiently," said Drew.

» Berkeley Labs Partners with UISOL in OpenADR Smart Grid Solution Development

Utility Integration Solutions (www.uisol.com) has entered into an agreement with the U.S. Department of Energy's Lawrence Berkeley National Laboratory (Berkeley Labs; Berkeley, California, U.S.) to develop the Open Automated Demand Response (OpenADR) specification into an open-source platform for use in smart grid applications.

The current OpenADR specification defines a communications interface protocol that can allow utilities to automate management of end-use energy loads or demand response. Berkeley Labs has conducted OpenADR research for more than five years through its Demand Response Research Center. The joint project with UISOL is being administered by its Environmental Energy Technology and Computing Research divisions. The California Energy Commission and UISOL are co-funding the project.

The project is intended to transition OpenADR from its current published specification version 1.0 status to an open-source implementation that can be offered in the public domain for further research, development and distribution in the utility, controls and buildings industries.

» KEMA Opens High Voltage Laboratory

KEMA (www.kema.com) has officially opened the doors to its new High Voltage Laboratory in Arnhem, the Netherlands. The new High Voltage Laboratory will function as an independent laboratory for testing and certification of high- and medium-voltage components used in electrical infrastructure. From the lab, KEMA will issue Type Test Certificates and Test Reports for tests on cables, cable accessories, insulators, power transformers, instrument transformers, GIS, switchgear, panels and other components. TDW