

Subject: Underground Transmission Turnkey Project

Customer Category: Major cable manufacturer

G&W Products: 230kV Cable Terminations

Issue: An exclusive country club and golf course exists in a high altitude, mountain community. Plans for the addition of luxury housing led to the decision to move existing overhead 115kV transmission lines underground away from the golf course fairway for safety and aesthetic reasons. With approval by the state regulatory commission, the developer was referred to Kerite Cable Services out of Connecticut for assistance with cable selection and accessories. Application concerns included the high elevation and isolated location of the installation site and the wide temperature range of -40°F to +90°F.

Solution: To accommodate the unique environmental requirements, Kerite's single Permashield®, EPR insulated cable was selected. This cable was selected because it utilized a solid insulation (no gas or fluid required), offered a time-proven insulation to accommo-

date extreme temperature fluctuations and was easier to install compared to other cable systems.

Due to the low temperatures during the winter and the high elevation of the location, cable terminations with extra creepage insulators were required. Even though the system voltage was rated at 115kV, the cable was insulated at 138kV and the terminations needed to be rated 230kV to accommodate the environmental factors. Additionally, access to the community was limited and required crossing a bridge with extremely stringent weight restrictions. To accommodate this, lightweight composite insulators were specified in stead of porcelain to minimize the weight of the terminations. The terminations of choice were G&W's PAT 160 style. Kerite provided a turnkey solution including all cable, accessories and installation services. G&W terminations were selected because they met the system requirements, had a long history of time-proven reliability and were system qualified on the specific Kerite cable used for this installation.

For more information contact your G&W representative, or visit us at www.gwelec.com. G&W has been a quality supplier of cable accessories worldwide for over 100 years.

G&W 230kV terminations with composite insulators installed on Kerite EPR insulated cable.

