CASE STUDY: Los Angeles Department of Water and Power (LADWP)

The “Go Anywhere” Osprey PowerPlatform®

Nuance Energy Group, Inc., manufacturer of the patent-pending Osprey PowerPlatform®, provides products and training to many organizations, such as the LADWP (www.LADWP.com). LADWP supplies more than 26 million megawatt-hours (MWh) of electricity annually to 1.4 million homes and businesses throughout the City of Los Angeles.

Like all electric utilities in California, the agency must meet the Renewable Portfolio Standard (RPS) required by state law and the California Energy Commission. As of mid-2017, the utility’s aggressive program reached approximately 2,550 MW of renewable generating capacity, putting it just shy of the 2020 RPS goal of 33 percent. LADWP intends to remain ahead of RPS goals with its own, more aggressive targets of 50 percent by 2025, 55 percent by 2030 and 65 percent by 2036.

The commitment to renewable energy is embodied in the utility’s mission: Providing clean, reliable water and power, and excellent customer service in a safe, environmentally responsible and cost-effective manner. In sunny Southern California, solar energy is
a critically important part of LADWP’s renewable energy portfolio, of course. But another aspect of its mission is equally important: implementing renewable energy as cost-effectively as possible to maximize the benefit to ratepayers.

According to Francisco Fernandez, the lead electrical engineer in LADWP’s Solar Power Engineering Department, “Our strategy for keeping costs low is to deploy solar arrays along existing transmission lines, where we already have rights of way, and to handle the installations entirely ourselves with our own crews.” With a total of 3,500 miles of transmission lines spanning five Western states, the potential for solar energy deployments in this unused space is virtually unlimited.

This strategy imposed two special requirements on the ground mount solar solution LADWP would need. One is being able to remove the entire solar array when necessary to effect repairs or upgrades to the overhead transmission lines. The other involves the ease of installation (and potential removal), preferably by small crews without any need for heavy equipment.

To evaluate available solutions, LADWP issued a request for proposal and Nuance Energy was selected among the competitive bidders. To prepare for the pilot, a crew of five attended a half-day on-site training course to learn how to assemble, install and test the system. The course focused on installing the Osprey’s patent-pending, earth anchor foundation system. Topics included setting the earth anchors using an electric or pneumatic hammer-drill, performing a real-time test to verify every anchor’s holding strength, and securing each anchor’s rod or cable to the anchor stand. Attendees also learned about ways to handle challenging conditions and soil types, ranging from sites with limited access and/or sloped terrain to those with sandy or loose soils, or underground obstacles, such as rocks or buried services.

The Solar Power Engineering Group under the Power Engineering Division is in the process of formulating plans for production deployments along transmission lines and at other facilities where LADWP has existing rights. The utility is also evaluating the use of battery storage systems to support a variety of applications for stabilizing the grid, especially during periods of peak demand.

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The Osprey PowerPlatform® opens up unprecedented opportunities to install ground mount systems in areas that were previously off limits. If you’d like to learn more about this revolutionary solar racking technology, contact Nuance Energy today for a free consultation.