

 CASE STUDY NV ENERGY

To support rapid growth at the Tahoe Reno Industrial Center (TRIC), NV Energy upgraded key transmission lines and constructed new tie lines using the ACCC® Lapwing Conductor. This Advanced Conductor Technology enabled efficient, reliable, and scalable power delivery to major customers - including Tesla, Google, and Switch - while reducing infrastructure strain and accelerating deployment timelines.

Objectives

- Meet surging energy demand driven by large-scale industrial and data center expansion
- Upgrade existing T&D infrastructure rapidly and cost-effectively to accommodate increasing load
- Deploy high-capacity lines using existing structures and rights-of-way
- Improve efficiency and resilience under high-temperature and extreme weather conditions

Solution

NV Energy selected the 1949 kcmil Lapwing size ACCC® Conductor for several 120 kV projects serving TRIC and surrounding areas. Its high ampacity, reduced thermal sag, and lightweight composite core made it ideal for reusing existing structures and achieving longer spans with fewer new poles.

NV Energy has completed over 30 ACCC® Conductor projects statewide, covering voltages from 69 to 230 kV and totaling more than 600 circuit miles of installed conductor. These projects include connections to critical substations like Chukar and Greenlink, serving the growing power demands of Nevada's industrial corridor.

Key Results

01 Transmission Line Upgrades

In 2020, NV Energy completed its 16th ACCC® Conductor installation in Nevada, installing the 1949 kcmil Lapwing ACCC® Conductor along the Wild Horse—Comstock Meadows 120 kV line to support the Tahoe Reno Industrial Center.

02 Enhanced Capacity with Onsite Generation

The Lapwing-size ACCC® Conductor has been used to link five on-site power plants to deliver a combined capacity of over 900 MW, supplying heavy industrial and data center loads directly.

03 Statewide Scalability

With nearly 30 projects completed, ACCC® Conductor has become a cornerstone of NV Energy’s grid modernization strategy, enabling fast and flexible capacity increases across Nevada.

Performance & Benefits

900+ MW Delivered	Supported significant new generation and industrial load at TRIC.
Improved Efficiency	Lowered line losses, reducing O&M costs and energy waste.
Fast Deployment	Enabled longer spans and avoided costly tower replacements.
Cost Reduction	Fewer structures and shorter construction timelines reduced total costs.



Conclusion

NV Energy's use of ACDC® Conductor exemplifies how modern grid infrastructure can be rapidly scaled to meet accelerating demand - without major structural overhauls. This solution increased transmission capacity, improved operational efficiency, and boosted resilience under extreme environmental conditions. As energy demand surges across Nevada's industrial corridor, ACDC® Conductors remain a cost-effective, future-ready solution for scalable grid expansion.