

Project Experience

Microwave Study

Los Alamos County, Los Alamos, NM

The County of Los Alamos, Department of Public Utilities identified a need to replace the existing 2 GHz microwave system used to support data telemetry for its electric utility Supervisory Control and Data Acquisition (SCADA) system. The 2 GHz microwave system utilizes radios that are now obsolete and no longer supported by the manufacturer. In addition, the Federal Communications Commission allocated the frequency band used by the County system for use by emerging technology services including Mobile-Satellite Service (MSS). The County anticipates that they may be required to vacate their 2 GHz frequency band in favor of a new emerging technologies user. To limit the disruption associated with replacing the radio system, the County elected to begin the process of vacating the 2 GHz band voluntarily.



Based upon past project performance, the Department of Public Utilities called upon Timberline Engineering to perform an engineering study to determine the most suitable telemetry configuration that would meet the needs of the electric utility SCADA system. In fulfillment of that requirement, Timberline performed a study that documented the current microwave system configuration, telemetry system requirements, and cutover issues; provided an estimate of performance for the current and alternative systems; outlined a conceptual system configuration that would meet the electric utility SCADA system telemetry requirements; defined system engineering and integration requirements to accomplish replacement of the microwave system; provided an opinion of the probable engineering design and construction costs for implementing the recommended configuration; described an implementation plan based on the County's technical and fiscal requirements and constraints and on constraints placed by the FCC on construction timing; and summarized the rules established by the FCC regarding reimbursement of relocation costs. As a result of Timberline's efforts, the County has a clear plan of attack. It is anticipated that design of the replacement system will begin very shortly.

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