VISTA TO MERCURY 138 KV TRANSMISSION PROJECT

VALLEY ELECTRIC ASSOCIATION
PAHRUMP, NEVADA
MR. J.W. (BILL) MATHESON, P.E., MANAGER ENGINEERING

PROJECT COST: $5,300,000
COMPLETION DATE: 2003
PHONE: (702) 727-5312

Project Experience Resume

KEY FACTS & HIGHLIGHTS

- **ECI RESPONSIBILITIES INCLUDED FIELD ROUTING, FOUR ROUTE ALTERNATIVES FOR BLM PROCESS & FIELD SURVEY**
- **TOPOGRAPHIC SURVEY & MAPPING OF 24 MILES, 954 KCM AAC CORTEN STEEL TRANSMISSION LINE**
- **ECI AUTHORED LOAD FLOW STUDIES IDENTIFYING THE PROJECT TO MEET EXTREMELY HIGH LOAD GROWTH RATE OF 15%**
- **HANDLED COMPLETE EA PROCESS & BLM COORDINATION MEETINGS**

PROJECT DESCRIPTION

Planning Phase

Valley Electric Association's Vista to Mercury 138 kV Transmission Facilities Project includes a major addition to VEA Vista 138-24.94 kV Substation, located in Pahrump, Nevada, as well as a new transmission line generally following an existing 138 kV H-frame corridor for approximately 9 miles and then continued northwest through the Spring Mountain Range, near Mount Shader, for approximately 15 miles. Termination of the 138 kV transmission facilities requires design and construction of a new 138 kV ring bus switchyard near Mercury, Nevada.

ECI's responsibilities included in-depth modeling and load flow studies to determine the most cost effective and feasible long range plans to meet the extremely high growth rate of 15% currently realized by Valley Electric Association. The Vista to Mercury line was designed to ultimately be converted to 230 kV operating voltage.

Project Experience Resume

"Engineering with Distinction"

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Environmental Assessment & Right-of-Way Phase

Routing alternatives developed by ECI in conjunction with the Bureau of Land Management (BLM) involved two primary routes, each having a potential crossover, for a total of four alternatives. All of these alternatives involved routing of the first nine miles of line in an existing 138 kV transmission corridor. From this point, two alternatives involve crossing a pass having considerable relief (direct route), while other alternatives involved routing of the line around the west side of the mountain range adjacent to the existing highway. The preferred route selected through the EA process was the direct routing alternative.

Right-of-way procurement for this line section required negotiations with the Bureau of Land Management for "use" charges, planned access roads and redefinition of an existing prescriptive easement held by Valley Electric Association.

ECI's responsibilities included complete preparation of an Environmental Assessment and coordination with the Bureau of Land Management for right-of-way procurement for the entire transmission line and new substation facility. Although the route was predominantly sited on BLM land, approximately 20 private parcels were identified that required title research to locate owners. Many of these parcels were undeveloped desert land that had been sold to unsuspecting parties who believed land was located adjacent to basic utilities that would allow development into home sites. Consequently, a number of the owners of these parcels could not be located, and a permit was granted through the decree of abandonment. The direct transmission line route traversed patented mining claims, which required negotiations with landowners and ultimately condemnation of a short section of transmission right-of-way.

ECI's team members responsible for the environmental assessment process included Mr. Bob Scott and Mr. Dale Broveak. Complete cultural, biological and threatened & endangered species studies were conducted to thoroughly investigate project impacts and support the successful EA process. The project was protested by an owner of a patented mining claim on BLM land through the Internal Bureau of Land Affairs that is responsible for federal land issues. Although this complaint process delayed the completion of the environmental assessment, other factors have subsequently delayed the need for construction until the probable start after year 2004.