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**Colorado River Commission
Power Facilities Division**

Facilities Overview

The Colorado River Commission (CRC) on behalf of the State of Nevada owns, operates and maintains seventeen high-voltage substations, thirty-two miles of 230-kV overhead transmission lines, four miles of 69-kV overhead transmission lines and eleven miles of 69-kV underground transmission lines all of which are located in southern Nevada. Substation voltages include 230-kV and 69-kV primary voltages and 14.4-kV, 13.8-kV, and 4.16-kV secondary voltages. In support of this electric system, CRC owns, operates and maintains a communication network including three microwave radio sites and fifty-eight miles of fiber optic cable. These facilities are used by CRC to provide electric service to the Southern Nevada Water Authority's (SNWA's) water pumping and treatment facilities and to the six industrial customers comprising the Basic Industrial Complex in Henderson, Nevada.

CRC's electric system, valued at \$120,000,000 before depreciation, contains approximately 1,800 megawatts of transformer capacity. As a result, it is the third largest transmission and distribution system within the state of Nevada on both a dollar value and on a capacity basis. In addition, it contains some of the newest equipment in southern Nevada, having been constructed from 1996 to the present. The \$600,000 supervisory control and data acquisition system used to operate the electric system is state of the art within the industry and has been showcased at national conventions and trade shows.

In addition to operating and maintaining its own equipment, CRC also operates and maintains seven additional substations owned by the SNWA. Operation and maintenance support is further extended to the City of Boulder City pursuant to a mutual assistance agreement among the parties.

Power Facilities Division Staff

To operate and maintain CRC's high-voltage transmission and distribution facilities, CRC has established a Power Facilities Division. The Power Facilities Division staff reports to the Newport Substation complex in Henderson, Nevada. This location contains a small office complex, warehousing facilities and the control center for the system. The complex is centrally located allowing personnel to be dispatched to any of CRC's substations within twenty minutes.

The Power Facilities Division staff includes an Assistant Director for Engineering and Operations, a Senior Electrical Engineer, a Communications Supervisor, a Power Facilities Manager, a Senior Substation Electrician and a Substation Electrician. The responsibilities for each of these positions are summarized as follows.

The Assistant Director for Engineering and Operations (ADEO) reports to the Executive Director of CRC and is the individual with overall responsibility for the development, operation, and maintenance of CRC's high-voltage transmission and distribution system. The ADEO is also responsible for operation and maintenance of any CRC customer facilities pursuant to contracts between CRC and its customers. The ADEO is the individual primarily responsible for the safety of Power Facilities Division personnel and for the reliable delivery of energy to CRC's customers.

The Power Facilities Engineer (PFE) reports to the Assistant Director of Engineering and Operations. The PFE is responsible for the development, operation, and maintenance of the metering, controls, protection, and supervisory control and data acquisition (SCADA) systems for CRC's high-voltage transmission and distribution system. The PFE prepares studies, reports, and designs in support of the on-going development, operation, and maintenance of CRC's transmission and distribution system.

The Power Facilities Communications Technician (PFCT) reports to the Assistant Director of Engineering and Operations. The PFCT is responsible for the development, operation, and maintenance of the microwave, fiber optic, local area network, and telephonic systems used to support CRC's high-voltage transmission and distribution system. The PFCT also prepares studies, reports, and designs in support of the on-going development, operation, and maintenance of CRC's transmission and distribution system.

The Power Facilities Manager (PFM) reports to the Assistant Director of Engineering and Operations. The PFM is responsible for the implementation of CRC's program for operation and maintenance of its high-voltage transmission and distribution system. The PFM is responsible for the effective and timely implementation of standard operating procedures and maintenance practices. The PFM is responsible to ensure work and work practices are performed in strict compliance with CRC's adopted safety policy and guidelines. The PFM prepares and carries out high-voltage switching programs. The PFM is a working supervisory position, performing personnel and facility management functions as well as hands-on craftwork.

The Power Facilities Senior Electrician (PFSE) reports to the Power Facilities Manager. Under the direction of the Power Facilities Manager, the PFSE performs operation and maintenance tasks related to CRC's high-voltage transmission and distribution system. The PFSE performs high voltage switching. The PFSE is expected to perform at an experienced journeyman level, capable of completing complex electrical and substation maintenance tasks with little direct supervision.

The Power Facilities Electrician (PFE) reports to the Power Facilities Manager. Under the direction of the Power Facilities Manager, the PFE performs operation and maintenance tasks related to CRC's high-voltage transmission and distribution system. The PFE is expected to perform at a journeyman level, capable of completing routine electrical and substation maintenance tasks with moderate direct supervision. The PFE performs high-voltage switching. The PFE is expected to work independently on routine

tasks and in conjunction with the Power Facilities Manager and/or the Power Facilities Senior Electrician on complex tasks.

In addition to its maintenance vehicles and mobile equipment, the Power Facilities Division maintains in excess of \$300,000 in specialized high-voltage tools and test equipment in order to carryout its functions. Power Facilities Division personnel are supported by various maintenance support contracts including a contract with Energized Substation Services, Inc. to perform pressurized washing of insulators and bushings at various substations.

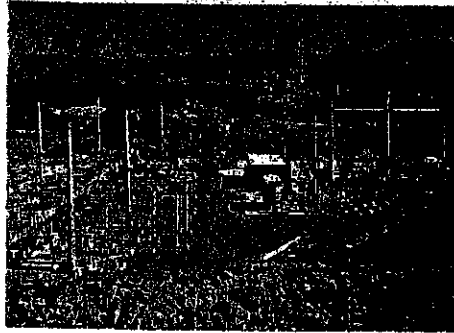
The direct annual operation and maintenance budget for CRC's high-voltage transmission and distribution system is \$2,200,000.

Capital Projects

Over the past seven years, CRC has carried out an extensive capital development program in order to develop the base infrastructure to serve its customers. This base infrastructure is now largely complete. One remaining infrastructure project to be completed is the new RMPS-B Substation. This substation will be constructed by CRC to serve the SNWA's River Mountain Pumping Station B, currently under construction. The RMPS-B Substation will cost \$2,200,000 to develop and will include two 69/4.16-kV transformers with associated 69-kV breakers, switches, neutral grounding resistors, lightning arresters and controls. On site construction will commence August 1, 2003, and be completed by the end of the year. Funding for the project will be provided by bonds previously issued by CRC.

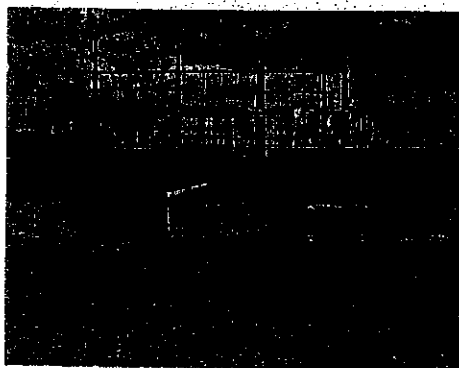
Projects in the future will focus primarily on improvements to the existing system and replacements as facilities and equipment age. Although no such improvements or replacements projects are currently being planned or designed, CRC expects to add additional warehouse space and to make minor substation yard improvements at the Newport Substation complex in 2004 at an estimated cost of \$200,000.

Eastside Transmission Substation



Eastside Transmission Substation is one of two 230-kV Substations. Eastside was constructed as part of Phase one which was completed in July 1998. Construction of our facilities has been designed to minimize the visual impact to the surrounding area. The C.R.C. has worked with local governments in addressing their concerns. Currently, Eastside feeds eight distribution substations.

Newport Distribution Substation



Newport Distribution Substation is the the second 230-69/kV Substations that was built under Phase I. Currently Newport serves five 69-kV Distribution Substations.

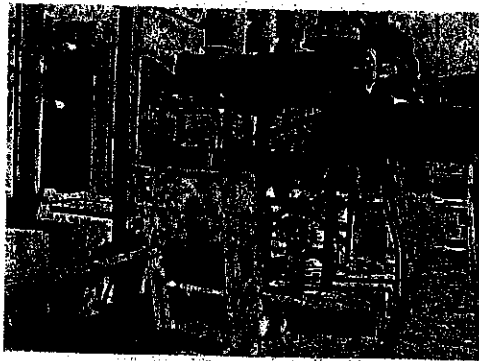
The Newport building complex will house the Power Facilities operations center. The office expansion was completion in March 2001.

Power Delivery Staff



Power Delivery crews retrofitting a 69KV circuit breaker with an additional set of CT's for the Foothills Turbine Project.

Foothills Substation



Example of CRC's test equipment.