

CPO Design— Western's in-house engineering resource

by **Mike Cowan**

Over the past four years, the Chief Program Office Design organization has been reorganized, transformed, downsized and realigned to better fit Western's present need for engineering services. While these changes have been tough on people, they were necessary and resulted in a streamlined organization with valuable technical expertise that can be tapped by all Western offices.

Significant process improvements and innovative services were also implemented to increase the value of CPO Design. While staffing levels have been reduced from 202 Federal and contract full-time equivalents in 1994 to 83 FTE in 1998 and will be further reduced to 62 FTE by December 1999, nearly the full range of engineering and technical services available in the past are available today.

The workload for this smaller engineering resource center has also changed. Back in 1994, when Western had a \$106 million construction program, most of the work was in support of construction. Today, and for the foreseeable future, work for CPO Design is only 26 percent construction related, with the remainder supporting equipment replacement, operations, maintenance and other non-design engineering services.

The new CPO Design is a technical services extension for all Western's regional offices. There are distinct and important benefits associated with such a core technical services group. These benefits include:

- Providing the best use of resources by leveling engineering workload across Western and minimizing unnecessary redundancy of staff;
- Retaining and using specialized technical knowledge and experience valuable to Western;
- Exposing the core technical services group to a diversity of design and other technical issues broadens the expertise base available for all of Western;
- Providing a pool of technical experts for detail assignments to supplement field forces where a dedicated FTE is not justified; and,
- Providing a resource for facilitating and coordinating various Westernwide technical issues.

An April 1997 benchmarking of Western's design process against other companies identified a number of observations and conclusions, including:

- A centralized/core design function was universal for all companies interviewed;
- Surveyed companies' design organizations supported both new construction as well as maintenance and replacement programs;
- Utility companies surveyed agreed that architectural/engineering consultants were more costly when internal costs for design preparation, review and administrative costs were included;
- Use of A/E consultants for high workload periods was advantageous over hiring more staff during peak workload periods; and,
- Western's design efficiencies compared very well to utility companies surveyed. Based on interviews, the overall time for pre-design planning, design and construction of a typical substation ranges from 18 months to 24 months for other utility companies. With a number of design process improvements implemented, Western's time frame for completing similar work is 12 to 18 months.

Western's senior managers established a set of key guiding principles for CPO Design—Western's core engineering organization. These are:

- Western will maintain a centralized core of engineering expertise;
- Western will staff CPO Design and the regions to the numbers identified in the Oct. 23, 1997 Engineering and Construction Review Study and annually update the workload analysis to assure that the expertise in CPO Design will support Western's needs;
- Western will not staff for trust work. However, trust work will be performed if it is within Western's authority, does not negatively impact internal work and does not require increased Federal staffing beyond what is required for Western's core work; and,
- Western's regional offices will budget for required CPO Design support. If a project is delayed or canceled, the regional office will work with CPO Design and other regions to arrange for replacement work to keep CPO Design's indirect expenses down.

CPO Design knows the work won't keep coming unless they can do the job better, faster and at a lower cost than the regions' alternatives. It's committed to providing Western with outstanding technical services and contributing toward Western being a premier power marketing organization.