

CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

This report has addressed the three principal requirements of Section 1809 of the Grand Canyon Protection Act of 1992. Western, acting on behalf of the Secretary of Energy, has:

- identified feasible methods of replacing power made unavailable at Glen Canyon Dam;
- included an investigation of the methods to identify modifications or additions to the transmission system that may be required to acquire and deliver replacement power; and
- included an investigation of the feasibility of integrating operations at Hoover Dam and Glen Canyon Dam to replace all or part of such lost capacity.
- developed this report in consultation with agencies of the Department of the Interior, representatives of CRSP power customers, environmental organizations, and the Colorado River Basin States.

7.2 FEASIBLE METHODS

This Methods Report identifies the economically and technically feasible methods that Western will use to evaluate and select resources to replace capacity made unavailable (or "lost"), due to changes in operational criteria at Glen Canyon and other SLCA Integrated Projects sites. The methods are consistent with established Western resource acquisition policies, such as Western's Principles of IRP. The methods also reflect consideration of provisions of the SLCA/IP Contract Amendment; the Record of Decision in Western's Energy Planning and Management Program EIS; considerations related to Western's Electric Power Marketing EIS and Reclamation's Glen Canyon Dam EIS;

pertinent FERC orders; and laws affecting the DOE, Western, and the Colorado River Storage Project.

Western intends to use the methods outlined in this report to replace lost generation to meet resource needs. Western's firm-power customers will periodically inform Western of the amount and term of replacement resource acquisitions to be made on their behalf, which Western will then acquire and deliver to them. Western will evaluate and select resources based on the methodology and criteria explained in this Methods Report, and generally follow a least-cost strategy. Western will also investigate and apply energy efficiency measures when cost effective.

Western will use a screening tool and a detailed computer-based economic dispatch and production cost model to evaluate resource offers from potential suppliers. This Methods Report details how these evaluation tools can be used to evaluate resource acquisitions options. Greater public involvement and more complex evaluation procedures and acquisition methods will be used for long-term acquisitions than for short-term or seasonal acquisitions.

This report also includes a "proof-of-concept" analysis demonstrating use of the evaluation tools and procedures on five hypothetical replacement resource alternatives with varying degrees of complexity. The proof-of-concept analysis was limited to hypothetical resource alternatives involving power purchases. By evaluating diverse power acquisition alternatives and considering transmission system constraints and possible mitigation measures, the analysis illustrates the ability of the screening and evaluation tools to be flexible enough to handle a "real world" resource acquisition process. The proof-of-concept analysis demonstrates that the acquisition methods and evaluation tools identified in the Methods Report provide an economically and technically feasible methodology for Western to use in selecting replacement power resources to offer to firm-power customers.

7.3 TRANSMISSION SYSTEM MODIFICATIONS

Western has identified transmission system constraints that could affect the acquisition of power to replace lost Glen

Canyon capacity. This Methods Report did not investigate or attempt to identify transmission system modifications associated with any specific acquisition, since no specific long-term acquisition has yet been identified.

Western will continue to study potential future CRSP transmission system modifications that could yield needed improvements in system reliability and increased transfer capability. Additionally, Western will supplement its studies of potential transmission system modifications whenever it identifies a specific resource that it expects would result in a least-cost replacement for Western and its firm-power customers. If cost-effective transmission projects are identified, Western will seek the authorization and appropriations required to construct (or participate in construction of) such projects.

7.4 ADJUSTING HOOVER POWER PLANT OPERATIONS

Western has investigated the feasibility of adjusting operation at Hoover Power Plant to replace all or part of the lost capacity at Glen Canyon. All Hoover capacity and energy currently available is allocated to Hoover contractors. Previous work done by the Bureau of Reclamation and Western suggests that small efficiency improvements (roughly a few percent) are possible from integrating operations at Glen Canyon and Hoover. However, efficiency improvements would result mainly in additional energy, rather than the capacity that is needed to replace lost capacity at Glen Canyon.

Physical and institutional barriers would make efficiency improvements difficult to realize, since Hoover and CRSP customers have widely varying interests and physical locations. Allocating efficiency gains among the contractors would be a complex undertaking. Additionally, transmission system use and losses would increase, negating some benefits of integration. Complicated and expensive changes to Western and Reclamation control and communications systems would also be required to integrate the two power plants.

At this time, Western has concluded that adjusting operations at Hoover Power Plant is not a feasible method

of replacing lost Glen Canyon capacity. However, Western will continue to monitor and participate (when appropriate) in any of Reclamation's future investigations of power plant integration.

7.5 ADDITIONS TO LEGAL AUTHORITIES

The methods outlined in this Methods Report can be accomplished within Western's existing authorities to purchase or exchange power on the regional power market. This will be adequate for resource acquisitions in the near term, while regional surplus power is assumed to be inexpensive and readily available, and may also be adequate over the longer term.

Western is not currently proposing acquisitions that would require new legal authorities, so implementing draft legislation is not needed at this time. Should regional power surpluses be exhausted and power purchase costs increase, it could become feasible for Western to participate in or acquire power generation resources. If this is determined to be more cost effective than other replacement power alternatives, Western will request from Congress any additional required legal