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August 31, 2022

Development of Post-2026 Colorado River Reservoir Operational Strategies

Via Email: CRB-info@usbr.gov

Ms. Carly Jerla
US Bureau of Reclamation
1777 Exposition Dr. Suite 113
421 UCB
Boulder, CO 80301-2628

Ms. Jerla,

Please find below, Arizona Power Authority's (APA) comments and feedback in response to Reclamation's request for input dated June 24, 2022 (87 FR 37884). These comments largely mirror those submitted by the Colorado River Energy Distributors Associations, to which we are a member as well.

Introduction

The Arizona Power Authority is a state agency established in 1944 to manage Arizona's allocation of hydroelectric power generated from Hoover Dam (Dam) (approximately 19% of all power generated). The power generated is delivered to several western states, including Arizona. In Arizona, this power is delivered to 63 different electrical districts, irrigation districts, co-ops, tribes, and municipalities serving irrigation, agricultural, commercial, and residential loads. The Boulder Canyon Project Act (BCP) authorized the construction of Hoover Dam to control the Colorado River floods, provide storage and delivery of stored water among western states, and to generate electricity as a means to provide a source of funding for the project.

Hydropower Impacts

The generation of hydropower at Hoover Dam is one of the fundamental and most important purposes of the BCP, because revenues from the hydropower generation produced and sold are used to operate and maintain Hoover Dam and surrounding infrastructure.¹ Revenues are collected through long-term electric service contracts administered by the Western Area Power Administration (WAPA). These revenues are deposited into the Colorado River Dam Fund (Fund), which the Bureau of

¹ Boulder Canyon Project Act of 1928, 43 U.S.C 617.

Reclamation (Reclamation) uses to oversee all facets of Dam operations. Revenues are used for repayment of Dam and Visitor Center capital costs, operation and maintenance, environmental program costs, as well as other necessary expenses. All electric service contract revenues are collected from not-for-profit entities, many of whom are small rural and tribal entities without the resources to overcome the challenges facing hydropower generation in the coming years.

Even with a basic understanding of science, the certain impacts of lower water levels in Lake Mead are easy to be identified. The two available operational strategies of either holding water in the lake or releasing it through the dam will both, at the current water levels, have negative impacts on hydropower generation. Allowing more water to flow through the dam brings lower lake elevations and head pressure resulting in less efficient hydropower generation. While conserving water in the lake results in less water to turn the turbines, therefore, reduced hydropower generation. Under either scenario, management and operational decisions will have significant impacts on hydropower generation. Even more ominous is the prospect that mismanagement and risky operational decisions could drop Lake Mead below the lake elevation where hydropower generation becomes impossible. Such a condition would have dire consequences for the entities, across the region, currently holding contracts for the hydropower generated. Such a situation should be guarded against

Unfortunately, the impact of the lower lake levels at Lake Mead are already being felt by the not-for-profit entities. Some of the ways these entities continue to be affected include 1) rate increases to cover existing capital costs, operation and maintenance, and environmental program costs, 2) replacement power in a highly competitive and resource constrained marketplace to replace the reduced power output, and 3) the loss of clean reliable generation that has been used to meet an RPS or provide for grid ancillary services. The APA welcomes the continued federal recognition of the impacts on many vulnerable and underserved not-for-profit entities because of the lower lake level and its negative impact on hydropower generation.

Federal Response

Federal recognition of hydropower generation's critical role is vital to the continued operation of Hoover Dam. Assembling the right management team with the necessary authority and experience is required to navigate these troubling times. Reclamation, as well as WAPA, because of their unique but essential roles should share responsibilities in the federal response to the issues at Lake Mead. WAPA's expertise and experience in modeling and impact assessments should be part of developing any operational or management strategy or plan.

Additionally, the APA and its customers should play a meaningful role in developing future operation and management plans for the Colorado River. Any future operational or management plan will need to go through the NEPA process. A NEPA process ran well, is built on meaningful participation by those parties with a reasonable interest and relevant experience. The APA and its customers are such parties and should play a role in shaping the future operation and management plans. Similarly, and related, any process undertaken to address low-reservoir conditions, where near-term actions to protect against a complete system failure, should also include meaningful participation by the APA and its customers.

Lastly, the drought impacts described above are likely to persist for years to come. Revenues from hydropower generation are going to be significantly impaired for the foreseeable future. Reclamation, WAPA, and contract holders of hydroelectric generation should immediately undertake a process to address the role of hydropower generation as being the primary source of revenue for

operating and maintaining dam infrastructure. Addressing the issues related to costs and the need for affordable replacement power should quickly become a priority.

Please reach out if I can be of any further assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jordy Fuentes", with a long horizontal flourish extending to the right.

Jordy Fuentes

Executive Director
Arizona Power Authority