

**DON PEDRO HYDROELECTRIC PROJECT
FERC NO. 2299**

FINAL LICENSE APPLICATION

**EXHIBIT C – CONSTRUCTION HISTORY AND PROPOSED
CONSTRUCTION SCHEDULE**



Prepared by:
Turlock Irrigation District
P.O. Box 949
Turlock, CA 95381

and

Modesto Irrigation District
P.O. Box 4060
Modesto, CA 95352

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EXHIBIT C - CONSTRUCTION HISTORY AND PROPOSED CONSTRUCTION SCHEDULE

The following excerpt from the Code of Federal Regulations (CFR) at 18 CFR § 4.51 (d) describes the required content of this Exhibit.

Exhibit C is a construction history and proposed construction schedule for the project. The construction history and schedules must contain:

- (1) If the application is for an initial license, a tabulated chronology of construction for the existing projects structures and facilities described under paragraph (b) of this section (Exhibit A), specifying for each structure or facility, to the extent possible, the actual or approximate dates (approximate dates must be identified as such) of:
 - (i) Commencement and completion of construction or installation;*
 - (ii) Commencement of commercial operation; and*
 - (iii) Any additions or modifications other than routine maintenance; and**
- (2) If any new development is proposed, a proposed schedule describing the necessary work and specifying the intervals following issuance of a license when the work would be commenced and completed.*

PREFACE

The Don Pedro Project provides water storage for irrigation and municipal and industrial (M&I) use, flood control, hydroelectric generation, recreation, and natural resource protection (hereinafter, the “Don Pedro Project”). The Don Pedro Project was originally conceived as a water supply project. The Don Pedro Project was constructed for the following primary purposes: (1) to provide water supply for the co-licensees, Turlock Irrigation District (TID) and Modesto Irrigation District (MID) (collectively, the Districts), for irrigation of over 200,000 acres (ac) of Central Valley farmland and for M&I use, (2) to provide flood control benefits along the Tuolumne and San Joaquin rivers, and (3) to provide a water banking arrangement for the benefit of the City and County of San Francisco (CCSF) and its 2.6 million Bay Area water customers. The original license was issued in 1966. In 1995, the Districts entered into an agreement with a number of parties which resulted in greater flows to the lower Tuolumne River for the protection of aquatic resources.

Hydroelectric generation is a secondary purpose of the Don Pedro Project. Hereinafter, the hydroelectric generation facilities and operations will be referred to as the “Don Pedro Hydroelectric Project”, or the “Project”. With this license application to FERC, the Districts are seeking a new license to continue generating hydroelectric power. Based on the information contained in this application, and other sources of information on the record, FERC will consider whether, and under what conditions, to issue a new license for the continued generation of hydropower at the Districts’ Don Pedro Project. The Districts are providing a complete description of the facilities and operation of the Don Pedro Project so the effects of the operation and maintenance of the Don Pedro hydroelectric facilities can be distinguished from the effects of the operation and maintenance activities of the overall Don Pedro Project’s flood control and water supply/consumptive use purposes.

Being able to differentiate the effects of the hydropower operations from the effects of the flood control and consumptive use purposes and needs of the Don Pedro Project will aid in defining the scope and substance of reasonable protection, mitigation, and enhancement (PM&E) alternatives to be considered in relicensing. As FERC states in Scoping Document 2 in a discussion related to alternative project operation scenarios: “...alternatives that address the consumptive use of water in the Tuolumne River through construction of new structures or methods designed to alter or reduce consumptive use of water are...alternative mitigation strategies that could not replace the Don Pedro *hydroelectric* project [emphasis added]. As such, these recommended alternatives do not satisfy the NEPA purpose and need for the proposed action and are not reasonable alternatives for the NEPA analysis.”

1.0 CONSTRUCTION HISTORY

Because 18 CFR § 4.51 (d)(1) requires a construction history only for applications for an initial license, a construction history is not required for this application for a new license for the Don Pedro Hydroelectric Project. For general information, however, it is useful to summarize that the construction of the new Don Pedro Project commenced in October 1967, reservoir filling began in November 1970, power generation commenced in early 1971, and the Don Pedro Project was

formally dedicated in May 1971. It was not until March 1974 that the reservoir first filled to the beginning of the flood storage space of 801.9 ft.

In January 1985, the Districts filed an amendment with the Federal Energy Regulatory Commission (FERC) to add the fourth generating unit. FERC amended the license to authorize the construction of the fourth unit on February 2, 1987 (38 FERC ¶61,097). Construction of the fourth unit was completed in April 1989. Numerous capital improvements have occurred at the Project since commencement of operations, many of which involve improvements to the recreation facilities located on Don Pedro Reservoir. These are generally considered minor compared to the original construction and addition of the 4th Unit. The more recent of these capital improvements are discussed in Exhibit H of this license application.

2.0 PROPOSED CONSTRUCTION SCHEDULE

The Districts are proposing three new capital projects as part of this final license application as follows:

- Improvements to whitewater boating river-egress at the Ward's Ferry Bridge,
- Cultural resource education projects to be located adjacent to the Don Pedro Reservoir, and
- Upgrade of the existing turbines and generators.

Schedules for these capital improvement projects are summarized below.

2.1 Ward's Ferry Take-Out Improvement Project

Design and construction of this project is estimated to cost \$1.1 million (2014 dollars). The consultation and design process will commence within one year of the Districts' acceptance of the new license and construction will be completed within three years. Consultation with agencies and interested parties is expected to require six months; design is expected to require eight months including survey and geotechnical work; and approval by FERC, three months. Bidding, bid evaluation, and contracting will require four months and construction is anticipated to require six months. Construction may be limited by water levels; and therefore, actual completion may be delayed due to access issues.

2.2 Cultural Resources Education Exhibits

The Districts, in coordination with Tribal groups, will design and construct two education exhibits at the Don Pedro Project, one to be located in the Don Pedro Recreation Agency Visitor Center and one to be located at the Blue Oaks Campground. These exhibits will highlight the cultural history of the area. Design and construction will be closely coordinated with interested tribes. The estimated construction cost is \$0.3 million (2014 dollars). Consultation with Tribes and design will commence within six months of the Districts' acceptance of the new license, take eight months to complete assuming close coordination with Tribal groups, and the construction will be completed within thirty months of license issuance, assuming completion of Tribal review occurs within six months of design completion.

2.3 Turbine-Generator Upgrade

The Districts are proposing to replace and upgrade the existing Units 1, 2, and 3 turbine-generator equipment as described in Exhibit B of this application. Within two years of the Districts' acceptance of the new license, the Districts will complete a final financial feasibility study using the best available information at the time related to equipment costs and value of electricity, including any renewable credits that may be available. If the upgrade continues to appear feasible, the Districts will proceed with final design, equipment specifications, model testing, manufacture, and installation of units. The complete upgrade will take five years once the final design is commenced. The upgrade is currently estimated to cost \$46 million (2014 dollars).

As described in the Executive Summary to this license application, a number of important environmental resource studies are continuing, the schedules for which are included in the Executive Summary. The Districts are not able to fully evaluate alternative scenarios or propose resource enhancements related to the resources of the lower Tuolumne River until these studies have been completed. Upon completion of the remaining studies and evaluations, the Districts may propose additional resource enhancements and associated capital projects. The schedule for these evaluations and filing any appropriate changes to this application is provided in Exhibit E of this application.