



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Helgeson, Brown, Mital, Simpson and Carlson
FROM: Mike McCann, Interim Chief Energy Officer and Patty Boyle, Principal Project Manager
DATE: August 1, 2017
SUBJECT: Update to FERC License Issuance and Carmen Plant Improvement Projects
OBJECTIVE: Information Only

Issue

This memo provides an informational update on the work completed since April 2017 as part of the Amended and Restated Settlement Agreement and powerhouse improvement efforts at the Carmen-Smith Hydroelectric Project.

Background

On November 8, 2016, the Board approved Resolution 1629 that authorized the General Manager to enter into the Carmen-Smith Amended and Restated Settlement Agreement and associated FERC filings related to the revisions of the Carmen-Smith Final License Application. The revised contracts and filings were submitted to the FERC on November 30, 2016. Principally these revisions changed the upstream and downstream fish passage provisions from a fish ladder and screen system to a trap and haul system.

In collaboration with EWEB, the FERC has since conducted a tour of the Carmen-Smith Project and held a technical conference regarding the filings and revisions of the Final License Application. The tour allowed FERC staff and other interested parties to learn first-hand about the features of the Project and the planned environmental improvements. The technical conference ensured that FERC and the parties to the settlement agreement had a common understanding of the proposed terms and established the regulatory processes to be completed prior to license issuance.

Since the technical conference, EWEB has completed its the required regulatory filings including updates to seven of the eight Final License Application Exhibits and significant revisions to the Biological Assessment of the Carmen Smith Hydroelectric Project. The regulatory agencies are similarly completing the processes established at the Technical Conference, having filed their prescriptions and recommendations to FERC in late July. The filing with the longest expected lead time will come from the State of Oregon Department of Environmental Quality. In order to be considered by the FERC, this filing needs to be made by DEQ by late February of 2018.

EWEB Generation Engineering and Operations staff continue to support projects that will replace the two failing turbine shut-off valves (TSVs) and reconstruct the Carmen substation facilities in 2018 and 2019, respectively. Although the TSVs were delivered to the project in early July, their late arrival (90 days overdue) has necessitated delay of the installation work until the spring/summer of 2018. Delaying the work is the prudent course of action because installation could not be completed before the onset of severe winter weather. Also, the impact of keeping the Carmen Plant out of service during the high power demand season is too great from a financial perspective. The substation reconstruction work remains on schedule. Procurement of long lead-time switchgear and control system equipment as well as detailed design for the work will occur in 2018. The substation rebuild and installation work will be completed during the 2019 construction season.

Discussion

License Issuance

Having completed the required license filings, staff have turned their attention to the anticipated deployment of the license. While there are no known issues that could delay license issuance, we are proceeding in a cautious manner. License issuance will trigger a series of events and requirements culminating in an official acceptance of the license by EWEB. Assuming EWEB accepts the license and there are no challenges by other parties to the proceeding, staff will then meet with FERC staff to formally transfer the proceeding from licensing to compliance staff. This step initiates license compliance with FERC.

The Revised Settlement Agreement, and presumably the new license, includes a number of required actions within the first year of license issuance. These include development of the following plans:

- Water Quality Management Plan
- Transmission Line Management Plan
- Vegetation Management Plan
- Upstream and Downstream Passage Plan, including a schedule for design and construction of fish passage facilities

The timing and complexity of the deployment of each of these plans is dependent on the specific terms of the license and settlement agreement. We estimate that the initial planning and deployment of the license will take no fewer than five years and be supported by up to six fully dedicated employees with additional employees contributing specific expertise as needed. Once the initial deployment is complete, there will be on-going effort required for the duration of the license term to maintain compliance with the license requirements. The level of effort planned for license deployment was anticipated in the economic analysis provided to the Board for its consideration when authorizing the General Manager to enter the Amended and Revised Settlement Agreement.

Powerhouse Improvements

Delaying the installation of the new TSVs triggered revisions to other work plans, though it did not necessarily delay all of the associated work that was planned for 2017. Already complete is the installation of a new flow control valve at the Smith Reservoir intake structure. This improvement will ensure that power tunnel dewatering for the upcoming work can occur in a fully controlled and reliable manner in spite of heavy leakage occurring through the existing TSVs. Also complete are

improvements to the Carmen Plant's draft tube gate system, which is another essential improvement needed to support the upcoming TSV installation work.

Staff are currently preparing to conduct a power tunnel inspection scheduled for this fall to clearly define any tunnel repair issues that might need to be addressed during the 2018 TSV outage. The inspection will also provide an opportunity to test and replace pressure relief valves located within the tunnel, further improving EWEB's ability to dewater the tunnel in a reliable manner in 2018. This inspection will require that the Carmen Plant be taken off-line for approximately four weeks beginning in mid-September. As a result of the dewatered condition, this outage will provide an opportunity for engineering staff to fully inspect the turbines at the Carmen Plant, an activity which hasn't been possible for several years due to the excessive leakage through the TSVs. At the same time, Wildish will use the outage to upgrade the plant's sump pumping system, another improvement that will benefit the 2018 TSV outage work.

Finally, planning and design work for the turbine replacement and generator rewind at the Carmen Plant is progressing well. A request for proposals was issued in June and proposals are due in late August. All of the major vendors for this type of work have shown an interest in EWEB's RFP. Staff expect that this RFP will yield a favorable proposal and are scheduled to return to the Board to seek authorization to award the contract at a meeting later this year. EWEB's consulting engineer has estimated the value of this turbine-generator contract at approximately \$14 million.

Requested Board Action

None at this time. This memo is for information purposes.