



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Simpson, Brown, Helgeson, Manning and Mital

FROM: Mike McCann, Generation and Electric Operations Manager, and Patty Boyle, Principal Project Manager

DATE: October 4, 2016

SUBJECT: Carmen Smith License Renegotiation

OBJECTIVE: Information in anticipation of Board action on the Carmen Smith Amended and Revised Offer of Settlement and Joint Explanatory Statement and the Amended and Restated Settlement Agreement at the November 8th Board meeting.

Issue

This memo is intended to provide the Board with an update regarding the Carmen-Smith Project License and the terms of the anticipated 2016 Amended and Restated Settlement Agreement. All material terms of the settlement agreement are in place as described below. At the November 8th meeting, the Board will be asked to take action to authorize the General Manager to enter in to the Agreement by November 30, 2016.

Background

Since EWEB and 16 other parties signed the Settlement Agreement for the relicensing of the Carmen-Smith Hydroelectric Project in October 2008, the economics of the relicensing project had deteriorated to the point that reassessment was necessary. In July 2015, the Board reviewed several alternatives to accepting a new FERC operating license and supported Management's recommendation to pursue strategies to renegotiate the Settlement Agreement with the goal of improving the likelihood the project would remain economic over the license term. On August 28, 2015, the FERC granted EWEB's request for a stay of license issuance until at least January 31, 2016, and requested that EWEB inform them of EWEB's intentions for the Project at that time.

In January 2016, EWEB reported to the FERC that the parties had made significant progress toward agreement on a Revised Settlement Agreement and requested a one year extension of time to complete the revisions and the assistance of FERC staff to help consult on both the content and procedure for resubmission. Recall that in addition to very serious economic issues regarding this project, the FERC indicated that it is interpreting its authority regarding licensing within the Wild and Scenic Rivers Act more conservatively and anticipated that the license would likely be issued with several inconsistencies with the Settlement Agreement. In February, the FERC responded to our request by granting both an extension to August 2016, and assignment of two separated staff members. Given the complexity of the renegotiation and the demonstrated progress toward agreement, the FERC further granted an extension for submission of materials to November 30, 2016.

Discussion

Thanks to the flexibility and creativity of all the Settlement Parties, we are proposing an agreement that, if approved, will allow EWEB to retain our largest, carbon-free generating resource while preserving the environmental benefits as the original project envisioned but at a lower cost. The overall project economics are significantly improved, but still near break-even given market conditions.

Staff have continued to meet regularly with the Settlement Parties to redraft the following documents:

- Joint Explanatory Statement – Updated to reflect the changes to the underlying agreements
- License Articles – Amended and restated to reflect changes to upstream and downstream passage and to remove actions located in the Wild and Scenic River Corridor.
- Settlement Agreement and associated Aquatics Management Plan and Recreation and Aesthetics Management Plan – Major revisions to reflect changes to fish passage and items in the Wild and Scenic River Corridor.
- Other Management Plans – Minor revisions to reflect changes associated with items in the Wild and Scenic River Corridor.

Key Terms of the Agreements – 2008 compared to 2016

		2008	2016
General Terms	License Term	Settlement parties supported 50 year license	Settlement Parties support a 40 year license
	Interim Measures	None	EWEB has agreed to implement a few high impact items ahead of the license. These are primarily recreation improvements, limited fish passage for salmon and bull trout and aquatic habitat improvements.
Environmental Improvements			
	Upstream Fish Passage	Design criteria based volitional fish passage via new fish ladder at Trail Bridge	Trap and haul facility using water to water transfer
	Downstream Fish Passage	Design criteria based floating fish screen	Spillway passage at Trail Bridge- Trail

		and construction of a mile-long bypass pipe	Bridge shut down as a generating facility
	Actions in the Wild and Scenic River Area	Authorized and enforced by FERC	Authorized and enforced by USFS
	Fish Passage Standards	Compliance achieved based on fish passage designed and operated using agency criteria.	Adaptive management approach to achieve specific safe and timely passage standard.
Recreational Enhancements			
	Law Enforcement Officer	EWEB pays for a half-time Oregon State Police Officer	EWEB pays for half-time USFS Protection officer
	Actions in the Wild and Scenic River Corridor	Authorized and enforced by FERC	Authorized and enforced by USFS

An important philosophical item to note is that the proposed Settlement Agreement establishes fish passage using an adaptive management approach rather than facilities that are constructed to meet specific criteria established by the Federal Agencies. Using an adaptive management approach will require EWEB to design, construct and operate passage facilities in consultation with, and approval by, the Federal Fish Agencies and USDA Forest Service along with the FERC. Additionally, if EWEB is unable to show that those facilities are operating in a manner that meet the fish passage standards required in the Settlement Agreement, EWEB may be required to modify the passage facilities or operations to improve passage. Ultimately, if after 10 years EWEB cannot meet the established fish passage requirements, EWEB will be required to file a plan with the FERC to alter fish passage which may include building a fish ladder and screen system, other passage techniques or, while quite unlikely, could require dam removal and decommissioning. Although fish passage via trap and haul is a relatively common configuration, it is not risk free and EWEB staff will be working closely with our regulatory partners to ensure the facilities work as they are intended.

Public Outreach

Beginning this summer and continuing through the fall, Public Affairs staff have deployed a communications plan to inform the community on the efforts to revise the settlement agreement. This communications plan includes one on one meetings with interested parties, presentation to the McKenzie Watershed Council, messaging via the General Manager at community meet and greets, a meeting with the Register Guard Editorial Board, and a Guest Viewpoint in advance of Board action in November. Staff will provide materials to Board members to support them in communications with constituents and relay any feedback received from the community to the Board at the November Board meeting.

Triple Bottom Line Analysis Environmental –

The proposed Settlement Agreement commits EWEB to a substantial investment in preserving, protecting and enhancing the natural resources in the area of the Carmen-Smith Project. Through comprehensive study, evaluation and negotiation, EWEB and the other settlement parties agreed on a significant number of measures in the project area to address project impacts and enhance environmental attributes as part of the 2008 Settlement Agreement.

The proposed Settlement Agreement preserves much of the environmental benefit identified in the 2008 Settlement Agreement. The key differences between the original and revised settlement agreements are in the requirements for upstream and downstream fish passage. For upstream passage, the revised Settlement Agreement includes a trap and haul facility utilizing water to water fish transfer. This facility will be designed, constructed and operated in consultation with the Federal fish agencies and the Forest Service and approved by the FERC. Although, trap and haul does not provide the same volitional fish passage opportunity as offered by a fish ladder, fish injury and mortality rates are not expected to be significantly different between the two methods. Through an adaptive management approach, EWEB anticipates working with the fish agencies to ensure that the trap and haul facility is able to meet the fish passage standards required by the Settlement Agreement and FERC License.

Downstream passage via the Trail Bridge spillway is viewed to be equivalent or better than the floating fish screen bypass pipe combination included in the 2008 Settlement Agreement due to concerns regarding the almost one-mile long transport pipe required to route fish removed by the screen back to the river below the project. Spillway passage is expected to provide quicker, safer and less traumatic downstream passage for migrating fish following modifications to the Trail Bridge spillway and gate. As a result, though, EWEB will be required to give up power generation (about 4 average MW) at the Trail Bridge powerhouse because the intake to the turbine will remain unscreened. The loss of 4 aMW of carbon-free power supply should not significantly impact EWEB's supply portfolio, however, because we remain surplus in green energy and are expected to be so for some time.

Other changes to the settlement agreement are expected to be environmentally neutral and the Settlement Agreement remains significantly positive for the environment of the upper McKenzie.

Social –

Revisions to the Settlement Agreement will decrease the social impacts resulting from license implementation while preserving the recreation and leisure attributes in the agreement. The most significant change to the societal impacts of the project from the original agreement results from the significant decrease in construction at the project site for upstream and downstream fish passage. Implementation of the trap and haul and spillway passage measures will be completed in less time and with fewer disruptions to traffic and recreation in the area. These changes will also result in a significant decrease in the impact to the viewshed in the area of Trail Bridge reservoir, including the campground, highway and McKenzie River Trail. However, the anticipated economic benefit to the local economy will also be substantially less than originally envisioned.

Once the fish passage aspects of the project are completed, there is not expected to be any significant

difference between the societal impacts from the original and the revised agreements. The change in oversight responsibility from the FERC to the USDA Forest Service isn't expected to have an impact on the environmental and recreation measures contained in the agreement or how they are viewed or experienced by the public.

Overall the revised Settlement Agreement will provide a significant social benefit to the residents and visitors in the upper McKenzie Valley by revitalizing and enhancing the natural resources and recreational opportunities in the area of the project.

Economic –

The Carmen-Smith Hydroelectric Project financial analysis provides a net present value (“NPV”) of the future cash flows associated with the project. The basis for forecasting future revenue is a projection of market value for power and capacity. The current market power projections and an implied market capacity value are the lowest cost alternatives to completing the project. Therefore, that provides a framework that benchmarks Carmen plant investments against the least cost alternative. Of course, there are risks and uncertainties, as well as qualitative considerations to incorporate into the decision making process.

The NPV requires a forecast of all the future expected revenues net of any costs over the 40-year life of the asset. These future net revenues are then converted to a present value using a 7.5% discount rate. The value side of the NPV is based primarily on the power value and the capacity value. The main cost components are powerhouse capital costs, environmental capital costs, plant operating and maintenance, and ongoing environmental expenses.

In addition to the forward looking NPV for the Project, the historical costs have been considered as well. The basis for historical costs is inclusion of all capital costs (starting in 2002) for post license activities. In addition to including the historical capital costs the historical operating costs and revenue since the end of the last license have been included as well. While the current decision of relicensing is likely largely based on the forward looking analysis (as well as other non-economic factors), it is important to recognize the historical costs and revenues of the project.

The table below compares the NPV of the proposed project to the NPV last presented to the Board in January, 2016. The significant improvement in NPV can be attributed to the net impact of the following

- \$34 million lower power value over the life of the project related to lower market power prices and lower plant output as a result of shutting down Trail Bridge
- \$56 million reduction in capital and O&M costs, largely due to replacement of the upstream volitional ladder and a downstream screen and bypass system with an upstream trap and haul system and downstream spillway passage approach.

Carmen Smith Economics		
	2008 Settlement Agreement and Project Plan -	2016 Amended and Restated Settlement Agreement and Project Plan
Forward Looking Project Economics (2016-2055)	\$(19) million	\$ 4 million
Historic and Forward Looking Project Economics (2008-2055)	\$(34) million	\$(11) million

FERC Updated Exhibit D (Project Economics)

As a component to the FERC license application, EWEB is required to file with the FERC a statement on project economics known as Exhibit D. EWEB filed a revised Exhibit D on February 2, 2016, that reflected a substantial net negative economic value. Following Board action on the revised Settlement Agreement, EWEB will be filing an updated Exhibit D based on the Amended and Restated Settlement Agreement that reflects these more favorable economics.

Requested Board Action

There is no request for Board action at this time. A request for Board action is anticipated at the November Board meeting. For additional information regarding the Amended and Restated Settlement Agreement please contact Mike McCann or Patty Boyle.