

RELICENSING THE LOUP RIVER HYDROELECTRIC PROJECT

INTRODUCTION, PROJECT HISTORY AND DESCRIPTION

The Loup River Hydroelectric Project (Project) is located in Nance and Platte Counties, Nebraska and is owned and operated by the Loup River Public Power District (District) of Columbus, Nebraska. The project is licensed by the Federal Energy Regulatory Commission (FERC). In 1933 the State of Nebraska approved the formation of the District and granted it the right to appropriate Loup River water (3,500 cubic feet per second [cfs]) for power generation purposes. The original 50-year federal license for the Project (FERC Project No. 1256) was granted on April 17, 1934. Construction began in late 1934 and was completed in the spring of 1937. The Project was relicensed in 1984 for a 30-year term (which license expired in 2014 but has been extended under annual licenses pending action on the District's 2012 license application).

The Project uses a 35-mile long canal, two regulating reservoirs (Lake Babcock and Lake North) and two powerhouses to capture the energy potential of water moving from a higher to a lower elevation. A major rebuild of the turbine-generating equipment and auxiliary facilities in both powerhouses was completed in 2007 at a cost of approximately \$17 million. The District has added numerous enhancements for environmental protection, safety, and public recreation at various Project locations since the Project was placed into commercial operation.

PROJECT OPERATION

The Project functions by diverting water from the Loup River into a two mile-long settling basin. The heavier sediment material settles out in the basin and is pumped from the basin to upland disposal areas at various intervals throughout the year. The diverted water exits this basin into the upper power canal and flows approximately 11 miles to the Monroe Powerhouse. Power is generated as water flows through three identical turbine-generator units and discharges to the lower power canal. This 12 mile lower power canal segment leads to a fixed crest weir structure which overflows into Lake Babcock and Lake North. The upper and lower power canals have a maximum flow capacity of 3,500 cfs although average flow is considerably less, due to fluctuations in water flow from the Loup River. Water accumulates in the 1100-acre regulating reservoirs and is available on demand at the Columbus Powerhouse via a two mile forebay canal. The forebay canal connects to steel penstocks leading to three turbine-generators. Discharge from the powerhouse enters a five mile tailrace canal which empties into the Platte River a short distance downstream of its confluence with the Loup River near the City of Columbus.

The electric power generated by the Project is sold by the District to the Nebraska Public Power District (NPPD) and used by NPPD as part of its overall generation portfolio for NPPD's retail and wholesale customers throughout Nebraska. The Project was conceived, licensed and specifically designed for a hydro-cycling mode of operation. In the District's 2012 application for a new license, the District indicated it has no plans to substantially change Project facilities or to alter the established operating mode of the Project. In addition to supporting power generation, the project canal delivers water to numerous small irrigation interests along the route and provides recreation in the form of fishing, boating, swimming and camping. A map of the Project with specific locations is included at the end of this paper.

FERC RELICENSING PROCESS

Relicensing a hydroelectric power project is a highly structured process that involves the license applicant, FERC, numerous regulatory agencies, stakeholders, tribal interests, special interest groups and the public. Relicensing is also a lengthy and costly process to the applicant. Depending on the issues involved, it is not uncommon for an applicant to spend 7 to 9 years obtaining a new operating license (and there have been documented cases of this taking twenty years to complete). The District used the Integrated Licensing Process (ILP), FERC's default (preferred) licensing process. The ILP requires a licensee to formally initiate the licensing process by filing extensive documentation at least five years before its license expires. As its name indicates, the ILP is intended to involve earlier, more extensive and more collaborative participation by all federal and state resource agencies and all parties throughout the relicensing process; however this has not always been the case for this Project.

Because of the complexity and time involved in the ILP, the District initiated planning, coordination and information gathering efforts to facilitate the licensing process in 2006, fully eight years before the license was to expire and four years before a license application was to be filed at FERC. The pre-application document was filed in October 2008 and the formal license application was filed in April 2012. To date, the District has met all deadlines required by the licensing process.

IDENTIFICATION AND RESOLUTION OF ISSUES

All water resource and energy developments involve some degree of economic, cultural and environmental impacts. These impacts may be viewed as desirable or undesirable by different parties. A new project license must comply with many regulations - including the Federal Power Act (FPA), the National Environmental Policy Act (NEPA), the Clean Water Act (CWA), the Endangered Species Act (ESA), and the National Historic Preservation Act (NHPA). Under the ILP, FERC Staff is required to perform and file an environmental assessment (EA) of the Project and the United States Fish and Wildlife Service (USFWS) may be required to perform and file a biological opinion (BO) of the Project where ESA is involved. Although the District met the deadlines of the ILP, FERC and USFWS have not met their deadlines. FERC Staff issued its EA on July 5, 2016 and USFWS issued its BO on December 16, 2016, over two years after the expiration of the District's license and over four years after the District had submitted its application for a new license. The District continues to wait on a final license order after spending almost \$8 million on this process to date.

During this process, both FERC Staff and the USFWS have indicated concerns regarding the following threatened and endangered species: interior least tern, piping plover, pallid sturgeon, and whooping crane. For many years, the District has taken a number of steps to help protect these species during operation of the Project. The District believes the operation of the Project as currently proposed in its application best protects these species. However, during the current licensing process, both FERC Staff (in its EA) and the USFWS (in its BO) have indicated Their belief there is a need to substantially modify Project operations, including the release of water into the Loup River downstream from the canal diversion and limitations of the diversion of water into the power canal, to the detriment of both irrigation interests and power generation in the canal. However, the FERC approved studies (which were agreed to by FERC Staff and USFWS and conducted by the District) show there would be no benefit to the ecologies or species as a direct result of this proposed change in operation. Further, the FERC proposed operational changes do not reduce the USFWS's effect determination on any of the species. Yet that change in operation would substantially reduce power from a clean, carbon free resource in Nebraska.

The District is committed to working responsibly with all concerned parties to properly investigate and seek appropriate resolution of all legitimate issues raised during relicensing. However, the flow limitations being asked for by FERC Staff in its EA and by USFWS in its BO, which would reduce the power generation from the hydroelectric system, are arbitrary and not supported by the record evidence as documented by the District in its filing. The USFWS, in developing its BO, did not use the studies agreed to by the parties in the development of the District's application. In addition, on several occasions, the District has asked for face to face meetings with both the USFWS and the FERC Staff to discuss these operational concerns associated with the FERC Staff/USFWS proposals, but have been told these meetings would not be allowed. Under a procedure (the ILP) which claims to invoke a level of collaboration, this seems disingenuous.

The preliminary indication from FERC Staff's EA and the USFWS BO indicates the cost to modify the operation of the hydroelectric to meet their requested proposals would be almost \$1 million per year, and could be substantially higher, based on the District's initial review. This is in addition to the nearly \$8 million spent on this process to date. This cost directly impacts the electric rates paid by District customers and all electric customers served by NPPD, without providing any direct benefit to the environment or the public.

SUMMARY

The following points summarize the District's concern with the licensing process and with the potential action which may result from any potential license.

- The District initiated relicensing activities in 2006, eight years before the current license expired in 2014.
- The District has followed the ILP, intended to be a collaborative and schedule driven process.
- Based on issues identified during collaborative discussions, the District conducted all FERC approved studies, costing several million dollars.
- Both FERC Staff and USFWS have indicated a desire to alter the Project operation to protect threatened and endangered species, but this is not supported by the evidence from the agreed upon studies conducted by the District.
- The District has made several requests to meet face to face with FERC and USFWS to discuss operational impacts, but have been told these meetings are not allowed.
- To date the District's customers have paid \$8 million towards the relicensing process and would incur an additional \$1 million/year in new operational costs as a result of proposed measures indicated by FERC Staff and USFWS.

MAP OF PROJECT

