

Regulatory Considerations in the Use of the ILP in Developing New Hydroelectric Projects

by Kirby Gilbert, MWH

FERC's Integrated Licensing Process (ILP) is applicable to both relicensing existing hydroelectric projects and developing new projects. FERC's ILP was developed during a period when there were few applications being filed for new projects. Although applications for relicensings may likely continue to outnumber applications for new projects, the complexity and number of new projects being pursued into licensing has increased significantly in the past two years. New projects today include conventional small and medium-sized hydroelectric projects. Many are multiple use water and energy projects, which can be bundled with pumped storage and transmission. There are also growing numbers of new hydroelectric based technologies such as tidal and wave energy projects that require licensing and often multiple agency approvals.

This paper outlines some permitting and regulatory approval considerations that could be useful to build into an overall strategy to gain coordinated and timely approvals to build a new project. The idea is to use the versatility of the ILP or traditional process to obtain a FERC license and at the same time explicitly provide all the information necessary for the other project approvals needed to break ground. If agencies such as the Corps of Engineers (Corps) regulatory branch are not brought into the ILP process to provide input and study related needs, then it is likely that several additional studies and a long post-license approval process mimicking what the FERC process involved will be necessary.

The ILP was developed to help better streamline the hydro licensing process for FERC licensing and related approvals. Each step, from early consultation through post-filing processes, is defined by a rigid framework of milestones. While the ILP is very suitable for use in the licensing of a new project, the application of the ILP for a new hydroelectric project presents challenges that are different than those faced in relicensing. Because developing a new project requires a substantial construction effort affecting many "new" jurisdictions and resources, the complexity of identifying and incorporating the different approval requirements into the licensing phases can be a much greater effort than in relicensing. There are many construction requirements and conditions as well as most of the operational and performance considerations found in relicensing of existing facilities. It is important to define all permitting requirements early on and try to maintain a defined and coordinated path toward other agency approvals, concurrent with the licensing. Bringing the required construction-related permitting and regulatory compliance needs into the fold of the ILP can help speed the permitting and approval process in the license implementation phases leading to final go ahead for project construction.

Licensing Considerations

As compared to relicensing there are several areas in licensing a new project that may require more time and resources. For a project on Corps of Bureau of Reclamation lands, these include getting land managing and regulatory agencies to participate in the FERC process with the idea of using the FERC process to help satisfy their agency real estate related approval requirements.

As compared to relicensings, challenges include not having an existing set of Exhibits A, B, F and G on file to use as the basis of the project description and project boundary. The development of such exhibits takes much more time when there is not existing data layers to layout a well thought out project, as it is known at that time of the PAD, and then again in preliminary licensing proposal or draft license application. Additional time and design resources need to be devoted to building detailed exhibits from scratch. Understanding all the existing encumbrances upon the lands included in the project boundary is useful before the project boundary map is released to the public and other stakeholders.

Getting realistic and cost effective transmission line interconnection points usually requires input and studies from other utilities or independent system operating groups and this can take from months to more than a year to get decisions made. It is important to factor into study timelines analysis of the transmission line route, but only after the point of interconnection is fairly certain.

Getting permissions to conduct engineering, geotechnical and/or environmental studies on the proposed hydropower site can also be difficult and slow progress in developing project designs, as many developers do not yet own the rights to project site lands. Getting approvals for studying and sampling efforts needs to be done early on to not miss the prime or optimal study seasons. Typically a MOA process can be used to provide agreement on conditions of site access and exploration, but some studies such as Phase I cultural studies require additional specialized permits such as the Archaeological Resources Protection Act permit (ARPA permit). Additionally, because the applicant has not usually been involved with the new land managing and regulatory agencies at the project site, there are often new personalities to get to know and there is often an added educational element to bring agencies up to speed on the requirements of FERC licensing.

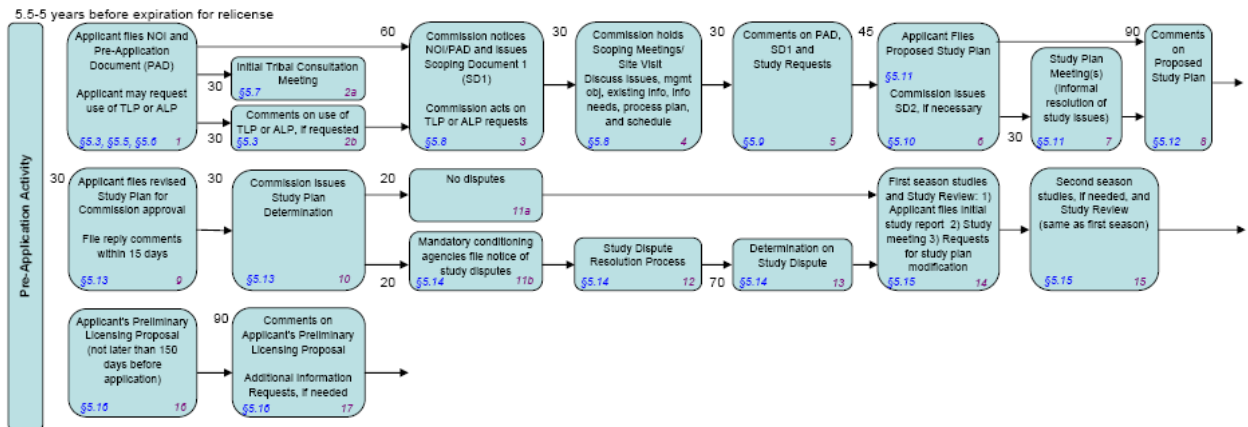
Early on in the ILP process, starting with the review of the PAD, there tends to be more critique and debate regarding the purpose and need of the project and designed attributes of the project than under a relicense. These debates can lead to the additional studies and the need to consider several alternatives to help justify the proposed concept. This is primarily due to the fact the project does not exist and therefore stakeholders can often try and influence most aspects of its fundamental design rather than being brought into a proceeding where hydroelectric infrastructure is “in place”.

Getting data for baseline conditions can also be more time consuming as there are no existing project files to access and there is usually no previous monitoring data to build upon, unless some previous licensing effort yields data available to the licensee. If the project is being planned at a Corps or Bureau of Reclamation dam, then accessing the data may require extensive coordination and special authorizations and paperwork related to homeland security.

Sometimes for a new project, there is debate about estimates of capital development costs to develop the new project (and how or who is going to pay). Whereas in relicensing this debate is often more focused on how much can the licensee really afford to pay for Protection, Mitigation & Enhancement measures. On the other hand decommissioning and decommissioning funds are usually not topics addressed.

Under the ILP process the issuance of FERC scoping document 2 (SD2, if necessary) and the applicant's proposed study plans under 18 CFR 5.11 are due on the same date (see step 6 of Figure 1). Because studies and study plans are so fundamental to the success of the quality of information going into the licensing decisions, it is important to try and coordinate with FERC in developing the proposed study plan after scoping to ensure FERC's findings in SD2 are not inconsistent with the proposed study plans. Working closely with FERC at this juncture can speed up the study implementation phase.

Figure 1. FERC Integrated Licensing Process



Corps of Engineers Regulatory Approvals

For new hydroelectric projects being proposed at existing Corps dams, the Corps serves as a key stakeholder in the licensing phase since they are an agency with mandatory conditioning authority under Section 4(e) of the Federal Power Act. The Corps can use this authority to influence the direction and extent of license articles FERC puts in its license order. Through a 1981 Memorandum of Understanding (MOU) with the Corps, FERC includes a series of license articles

to help protect the Corps interests. Many of these are designed specifically to help protect the Corps (and nations) navigation interests under the Rivers and Harbors Act of 1899. The FERC standard license articles also include a provision that the applicant provides power for the Corps dam for the term of the license. However, after the FERC NEPA process has been complete and license order issued, the Corps has several other regulatory approval processes an applicant must go through to get final approval to start construction of a hydro project. While many of the Corps regulatory processes could theoretically be undertaken during licensing, most of the time they are not. Whether the new project is being proposed at an existing Corps facility or not, the Corps regulatory authorities often apply to development of a new hydro project and include Section 9, 10, and 14 of the Rivers and Harbors Act and several provisions under the Clean Water Act.

Section 9 of the Rivers and Harbors Act prohibits the construction of a structure across a navigable river without a permit including a bridge or dam or causeway. The authority for bridges was transferred to the Department of Transportation in 1966. For most hydro projects at Corps dams, this section does not apply unless the hydro facilities span across the navigation channel.

Section 10 of the Rivers and Harbors Act prohibits unauthorized obstruction or alteration of any navigable water without a permit from the Corps of Engineers. Under 33 CFR 221, a FERC license will “normally obviate the need for a Department of Army permit under Section 10 of the 1899 River and Harbor Act”. However, in the regulations, the Corps explicitly retains its post licensing authority under Section 404 of the Clean Water Act. The regulations state that: “The basis for Corps approval under section 4(e) will be limited to effects on navigation; however, section 4(e) does not obviate the need for a Department of the Army permit pursuant to section 404 of the Federal Water Pollution Control Act” (i.e. Clean Water Act). Depending upon the level of participation of the Corps in the licensing process, the amount of by-in or sign-off from Corps of Engineer regulatory authorities can vary. From a practical basis, it would be best for all parties if the Corps participates extensively in the FERC licensing process, particularly to ensure navigation interests are not compromised. If the recognition of Section 10 approval in licensing is not documented internally by the Corps, then the Section 10 approval will likely have to take place again, post licensing.

Section 14 of the Rivers and Harbors Act provides that the Secretary of the Army may grant permission for the use of any sea wall, bulkhead, dike, levee, wharf, pier, or other work built by the United States. This approval is to ensure the Federal facility is not compromised by other non-federal developments. The permission is to be granted by an “appropriate real estate instrument in accordance with existing real estate regulations”. This permit is commonly known as a “Section 408 permit” from U.S code: 33 USC 408 (33 CFR 209.170(b)). From a practical standpoint, it could be argued that FERC already ensures the permission to alter a government dam or structure is included in a license at an

existing Federal project following the intent of Section 14 Rivers and Harbors Act. This is because the approvals of all designs must be signed off on by the Corps in a FERC process. FERC's standard license articles, Form L-6, is included in all new licenses for unconstructed projects on navigable waters. These articles include Secretary of Army approvals for the final designs and during operations. Additionally, one could argue the license for a project on Federal land itself essentially serves as a "real estate transaction", particularly given the provisions of Section 4(e) of the Federal Power Act. Under Section 4(e) FERC is to find the project is not inconsistent for the purposes for which the Federal reservation was created and Federal agencies managing such Federal land can and do typically impose mandatory conditions on the license. However, in recent practice, for projects being developed at Corps facilities, the Corps is currently requiring a 408 approval in the 404 post-license permitting process and thus is not recognizing that the FERC process essentially protects and provides a mechanism to ensure all of their interests outlined in Section 14 are complied with.

Based on problems with levees and other Corps projects being modified by others (particularly those without other Federal approvals), the Corps has developed a formal internal process to get Section 408 approval. In 2006 the Corps laid out its internal procedures for obtaining approval for modifying a Federal structure. While these procedures were developed to address all kinds of alterations, most of alterations the procedures address are better suited to non-Federal developers who are not going through a rigorous (Federal) FERC process. For a hydro project, the Corps procedures essentially mirror conditions FERC already puts in its licenses, stemming from the 1981 MOU. In 2007 and 2008, in reaction to many levee failures, the Corps provided additional guidance that added risk analysis procedures to their review process. The sign off for Section 408 comes from the Corps Headquarters, so the process can take time moving from District, to Division, and on up to the Chief Engineer at the Corps Washington D.C. Headquarters.

Section 404 of the Clean Water Act authorizes the Corps to issue permits, after notice and opportunity for public hearing, for the discharge of dredged or fill material into waters of the United States. The Corps permit also addresses wetland impacts, for those wetlands that are considered "waters of the United States". While there is a nationwide permit available, due to the extent of dredging needed at a new hydro project, the Corps is typically required to issue an individual 404 permit. As part of this process, the Corps must undertake a NEPA process, unless they can adopt FERC's NEPA document. There are 21 public interest factors the Corps must consider in issuing its approvals. The permit also requires a state-issued, Water Quality Certification under Section 401 of the Clean Water Act. In order to get a FERC license, the State will have already issued a 401 certificate and in principal, this certification should also serve the needs of the Corps in processing its 404 permit, however, in practice, the Corps will go back to the State to obtain their approval, or a new 401 water quality certification.

Summary

Developing a new hydroelectric project requires additional coordination and planning to try and get concurrent approvals to ensure construction can commence within two years of license issuance. An applicant can probably never involve the Corps too much in the licensing process as it should save time and money to get as much of their buy in and approvals as one can, concurrent with the similar reviews FERC is already undertaking. In particular, it would behoove a licensee to see that the Corps Regulatory Branches, which oversee the permit programs, get involved early with the FERC process. Better yet, would be to try and get the Corps to serve as a cooperating agency with FERC on the FERC NEPA document. But under a typical process, the Corps permitting process comes after licensing and this can add 2-3 years of delay before construction can commence. Even if the 404 permit needs to be issued after licensing to benefit from detailed project designs, the key factor is to try and have the FERC NEPA document be satisfactory for the ensuing Corps 404 permit process so only one NEPA document is necessary to start construction of the hydro project.

References

33 CFR 320.2 – Authorities to Issue Permits;

Rivers and Harbors Act of 1899, as amended (30 Stat. 1153);

33 U.S.C. 403 – Section 10 of Rivers and Harbors Act;

33 U.S.C. 408 – Section 14 of Rivers and Harbors Act (33 CFR 209.170)

33 U.S.C. 1344 – Section 404 of the Clean Water Act.

33 CFR 221 – Work for Others regarding Corps participation in FERC permitting and licensing processes;

ER 1110-2-1454 – Engineering and Design – Corps Responsibilities for Non-Federal Hydroelectric Power Development Under the Federal Power Act, CECW-EH, 15 July 1983 (includes as Part II, the MOU between the Corps and FERC of November 2, 1981)

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