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Federal hydropower permits and licensing: Avoiding delays and staying on track

By Kamau Sadiki

For 12 years, Kamau Sadiki was National Hydropower Business Line Manager at U.S. Army Corps of Engineers Headquarters in Washington, D.C., responsible for implementing Corps hydropower policy. He is currently a senior advisor at Dawson & Associates, which advises on federal hydropower permit approvals.

Costly impacts from climate change have gotten our collective attention as we search for ways to mitigate those impacts and transition to a carbon-free future. The U.S. hydropower industry is poised to make a significant contribution to clean energy production as part of the Biden Administration's efforts to reduce fossil fuel use.

Hydropower generation must have a central role in meeting our clean energy targets. It is a proven clean energy resource that has been historically underdeveloped. Importantly, as renewable energy production grows, electrical grid flexibility and energy storage become increasingly necessary and hydropower resources can reliably provide these critical functions.

But hydropower will only fulfill its potential if it first clears substantial federal permitting and licensing hurdles.

I spent 12 years in the U.S. Army Corps of Engineers headquarters office, overseeing hydropower policy, including approvals for private sector construction of hydropower facilities on non-powered dams operated by the Corps. I also directed development of the Corps' Hydropower Modernization Initiative, a 20-year asset management strategy to rehabilitate and modernize aging federal hydropower assets. Additionally, I spent many years in the Corps performing studies to determine the economic feasibility of hydropower projects, including power system analyses to integrate hydroelectric resources into predominantly thermal power systems.

With this bird's eye view of the federal process, I have seen a remarkable range of hydropower permit applicants. Some have truly been exemplary. For example, the 55 MW Red Rock Hydroelectric Project on the Des Moines River in lowa stands out as a project that obtained its permit, license and approvals to construct and operate on a solid timetable with very few delays. This was not accidental! Those involved in the approval process consistently submitted information that addressed Corps policy thoroughly and in a timely fashion. This built trust during negotiations, which kept the project review process moving forward.

Yet for every Red Rock Hydroelectric project, there were others that got bogged down, usually because the applicant did not appreciate what was necessary to comply with federal law or (sadly) overlooked what the law required. In too many cases, those permit applications descended into unneeded delays and finger-pointing.

For those looking at a hydropower permit application for developing hydropower on Corps non-powered dams, I offer some suggestions:

Study everything federal law requires. I recall a few large applicants who thought they could talk their way through the process without going to the expense of compiling the necessary data. It didn't work. Between their obstinacy and the bad will this creates, valuable review time was lost. Bottom line: If critical information the Corps needs for review is not provided in a timely manner, permit approvals will be delayed.

Know the federal decision-making process. The Corps has established rules and, in recent years, these rules have become more hospitable to the hydroelectric industry. For example, Section 408 approvals (Section 14 of Rivers



and Harbors Act of 1899 codified in 33 USC 408) used to have to come from the Director of Civil Works at Corps Headquarters in Washington, D.C. They can now be issued by the regional division commander, which saves time. By understanding the chain of command, you are more likely to understand how to overcome potential roadblocks.

Be transparent and collaborative. One hydroelectric applicant I knew thought they could cut approval time by bypassing the district office and going to the Assistant Secretary of the Army for Civil Works. This was an unforced error. The Secretary rightfully chose not to interfere with the regional office's authorities and the action did little to build trust within the Corps. Ultimately, the approach resulted in unnecessary delays.

Appreciating the culture of the Corps goes a long way.

The best way to understand the Corps' institutional culture is to build productive relationships by communicating, communicating and communicating again. I found from many years of working with external stakeholders that open, candid communication saves time, strengthens relationships and usually results in a positive outcome.

The stakes in the hydropower permitting and licensing process are enormous. The Federal Energy Regulatory Commission's website currently has about 114 pending licensing and/or re-license hydropower applications. Some are new projects and others are applications for renewal at operational projects for which the licenses are about to expire.

There are also about 80 FERC applicants for an initial hydropower preliminary permit to explore the possibility for development at Corps non-powered dams. Some of these applicants will be licensed and must navigate the Corps' Section 408 process before starting construction. Timely review at this level is critical.

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Combined, the permitting and licensing approval process is a tremendously cumbersome and time-consuming process that historically has taken more than eight to 10 years. We can do better with clear policy guidance and cooperation. Currently, there are about 3,000 MW of federal capacity at Corps non-powered dams that can be feasibly developed.

The time seems right for giving broader consideration to the non-federal U.S. hydropower fleet and powering up non-powered dams, particularly non-powered Corps dams. This would make a substantial contribution to our country's renewable energy goals.

Additionally, non-conventional hydropower projects can make a significant contribution to reducing the nation's dependency on fossil fuels. According to the FERC website, there is more than 35,000 MW of pumped storage capacity waiting to be licensed in the U.S. with another 32,000 MW in the permitting queue. These pumped storage projects are the needed "batteries" for grid energy storage and stability in order to optimize the output of wind, solar and other renewables.

Hydropower is a proven renewable energy resource. It is the nation's first renewable energy resource and has a history of meeting clean energy needs reliably. Further development of this resource can be done efficiently and cost effectively. Having the capability to navigating the hazards of the regulatory process will ensure a timely online project and return on investment.

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