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"Realizing the Potential of Hydropower as a Clean, Renewable and Domestic Energy Resource"
The House Natural Resources Subcommittee on Water, Power and Oceans
April 27, 2016

Highlights

1. Hydropower is of great value to our region. It serves multiple benefits, including irrigation, balancing for interment renewable resources, recreation, promoting electric reliability, is a clean emissions-free resource and is an economic stimulus to our farming community.
2. FERC's Integrated Licensing Process (ILP) is only beneficial if participants are willing to faithfully engage.
3. Mandatory Conditioning Agencies must give equal consideration to power and non-power benefits as directed by current law; the river provides so much more than power to the region.
4. The process could be improved if there was more transparency and timely engagement by the resource agencies in the effort to find science-based solutions to meet the multi - purpose nature of the resources and the dam.
5. Lastly, for those that want to do the right thing and are concerned about the integrity of the river, delays in licensing ultimately also lead to delays in environmental benefits.

The Foundation
Established in 1887, the Turlock Irrigation District (TID) was the first publicly owned irrigation district in the state of California and is one of only four irrigation districts in the state providing electric retail energy directly to homes, farms and businesses. Organized under the Wright Act, the District operates under the provisions of the California Water Code as a special district and is governed by a locally elected, five-member Board of Directors.

Today, TID provides irrigation water to more than 5,800 growers in a 307 square-mile service area that incorporates 150,000 acres of Central Valley farmland. In addition, TID provides reliable electricity to a growing retail customer base that now exceeds 100,000 residential, farm, commercial, industrial and municipal accounts in an electric service area that encompasses 662 square-miles in portions of three counties.

TID has been delivering irrigation water since 1900 when the District completed 250 miles of its gravity-fed water conveyance system. The Tuolumne River is the District's primary source of water, replenished annually by the spring snowmelt in the 1,884-square-mile Tuolumne River watershed originating at Mt. Lyell in Yosemite National Park. Water for irrigation and hydroelectric power production is stored at the Don Pedro Reservoir about 50 miles east of Turlock in the Sierra Nevada foothills near the historic gold rush era town of La Grange.

TID partnered with the neighboring Modesto Irrigation District (MID) ("the Districts"), and built La Grange Dam in 1893 to divert water out of the river and into the Districts' respective canals. The Districts joined forces again in the 1920s to build the first Don Pedro Dam. With a small storage capacity of 289,000 acre-feet, the dam held only enough water to accommodate growers' irrigation needs for a single growing season. After numerous dry winters, the Districts, which included our community, made the decision to replace the original dam with a much larger one in order to store water necessary to bridge multiple years of drought. The New Don Pedro Project was completed in 1971 and has storage capacity of 2,030,000 acre-feet (AF), seven times larger than the original.

With the first dam came the opportunity to generate hydropower. The Districts' customers voted overwhelmingly in 1923 to keep the power for public use versus selling it to investor-owned utilities then operating in the area, thus becoming the first of the state's irrigation districts to also enter the retail power business.

Benefits of the Don Pedro Project

The Don Pedro Project was locally funded and built, and it is operated by the Districts. It was constructed primarily to store and deliver irrigation water to some of the most productive farmland in the world. According to the Socioeconomic Study Report completed in April 2014, the Don Pedro Project supports approximately $4.109 billion in output, $734.8 million in labor income and 18,900 jobs annually. Additionally, the value of the crops produced within the TID service area is approximately $359.3 million per year. These numbers reflect the positive direct and indirect economic effects on the entire regional economy within Stanislaus, Merced and Tuolumne counties.

With affordable, reliable irrigation water supplies, the Project directly supports the vibrant agricultural sector that has evolved since the Districts' formation. And by extension, it indirectly supports the large agriculturally based economy that has developed around crop and dairy farm production, including input suppliers, dairy plants, food processing businesses, and many others. In addition to providing irrigation water to some 150,000 acres, the Don Pedro project also provides municipal and industrial water supply, flood control storage, recreation, power, and fish and wildlife conservation benefits.

Securing a new FERC license is not only crucial to providing water for California's Central Valley, it would maintain a clean and sustainable energy supply that is a fundamental component of the Districts' long-term effort to meet California's aggressive greenhouse gas reduction goals and to fulfill other energy and environmental mandates.

On average, Don Pedro provides 20 percent of TID's annual electric load, but during a wet year, this can be as high as 35 percent. Moreover, Don Pedro is our most economical energy source and, because of its operating flexibility, is a critical resource for meeting demand and stabilizing the regional grid. In addition to the hydropower generated by the Don Pedro Project, TID

meets the needs of their electric power customers with a variety of generation, including wind, solar and natural gas.

Operational flexibility is paramount as TID, and California's entire utility sector, moves towards the newly adopted 50-percent Renewable Energy Standard (RPS) and a massive influx of intermittent renewables on the regional grid. Because TID serves as its own balancing authority - one of seven in the state - its portfolio must include sufficient resources to meet its reliability and safety obligations. As a balancing authority, we not only help provide reliability to the Valley, we also help the Western region in its balancing and electric reliability needs.

This benefit cannot be understated as we move to one of the most aggressive renewable standards in the Country. Although large hydroelectric systems are not included within California's regulatory definition of eligible renewable energy to meet the 50 percent RPS, Don Pedro's generation emits no greenhouse gases, helping TID limit our carbon footprint overall. The Central Valley has some of the lowest levels of air-quality in the state. Hydroelectricity produced from the Don Pedro Project continues to ensure that TID is able to provide reliable electricity with no carbon emissions.

The multiple benefits of the Don Pedro Project continue to help maintain economic stability for our customers. This is extremely important as the District represents some of California's most economically challenged areas. Approximately 53 percent of the residents within TID's service area live within a disadvantaged community, as defined by the California Environmental Protection Agency.

The Relicensing Process

TID and MID are co-owners and licensees of the Don Pedro Project on the Tuolumne River. The Project consists the 2,030,000 AF reservoir and a powerhouse capable of generating 203 megawatts. The Federal Energy Regulatory Commission (FERC) issued the Districts a license for the Don Pedro Project in 1966, and that license expires on April 30, 2016. Since 2009, the Districts have been working towards acquiring a new license within FERC's Integrated License Process (ILP). Following extensive consultation with resource agencies, tribes, and multiple conservation groups, as well as the FERC, the Districts filed a draft license application on November 26, 2013, and a final license application with FERC on April 28, 2014.

To date, the Districts have spent seven year and more than $20 million on the FERC relicensing process for the Don Pedro Project. The Districts expect to spend several more years and millions more in the expectation of a new license that will allow MID and TID to continue to cost-effectively operate, in an environmentally sound manner, the very same hydropower facility that they have been operating for the last 45 years. As public agencies, the costs associated with the relicensing process and meeting any additional conditions imposed by a new license will be borne by the communities MID and TID serve.

The Districts intentionally chose to enter into the FERC ILP desiring to work alongside the state and federal agencies and other interested parties and stakeholders – at the beginning of the process - working toward an equitable solution for the operations of the Don Pedro Project. The Districts had hoped that this process would produce a solution in a reasonable timeframe, allowing the Districts to begin to implement fisheries improvements agreed to by all parties.

The Districts followed the FERC ILP, which provided a clear schedule and timeline for the relicensing process and created fair and ample time for the involvement and participation of Non-Governmental Organizations (NGOs), state and federal agencies as well as interested parties to be involved providing input and creating a clear and complete record.

As part of this process, the Districts have completed more than 33 studies,costing a cost of $20 million to date, with some individual studies exceeding $1 million. These studies examine, among other items, the Don Pedro Project's potential effects on historic properties, Native American cultural sites, public recreation, federally protected species, state protected species, water quality, water temperature, instream flow, resident and anadromous fish populations both in the reservoir and downstream of the project, terrestrial species and regional socioeconomic resources.

Each of these 33 studies was developed by the Districts in consultation with multiple federal and state agencies, numerous interest groups during countless meetings and conference calls, which in combination generated thousands of pages of information and comments. In addition, the Districts have held more than a dozen public workshops on the studies and their findings since 2013. After each study was performed, a draft report was shared with all the participants in the relicensing process to provide an additional opportunity for review and comment. The Districts then responded to every comment, modified the draft report and issued a final report.

As the final studies are completed and submitted, the Districts will be filing an amended Final License Application with FERC based on the complete data set and record. In the meantime, the Districts have been meeting with NGOs, resource agencies and all interested parties in the hopes of reaching agreement on flow and non-flow measures that could be made to ensure the integrity of the river and secure a new license. These measures will bring about significant improvements to the fishery sooner, rather than later; but only if all parties are willing to negotiate rather than drag out the regulatory process.

Improving the Relicensing Process

The great amount of care, time and money committed by the Districts and the scientists and engineers performing rigorous studies using accepted methods vetted by all the relicensing participants would be most useful if study results are used by the participants to inform their opinions and the recommended terms and conditions that they want FERC to impose on the new license.

However, in our case, these carefully executed studies have often been ignored or criticized as faulty when the results do not confirm participants' pre-conceived notions or beliefs about environmental impacts. Fortunately, objectivity has not been lost with FERC staff, which gives every indication of being impartial reviewers who use and reference all of the resulting studies, and who do not seem to have pre-conceived notions about project impacts.

For example, the Districts 2012 predation study, a FERC-required study, evaluated the impact of predation by non-native fish on salmon in the lower Tuolumne River. The study determined that more than 90 percent of the out-migrating salmon smolts were consumed by non-native bass species prior to reaching the San Joaquin River. Some relicensing participants and resource agencies criticized the study and requested an additional predation study. The Districts collaborated with relicensing participants and agreed on the new Predation Study Plan, and FERC ordered a second predation study in 2014, which will cost well over $1 million to be conducted. The Districts requested a permit from California Department of Fish and Wildlife in October 2013, yet the permit for the FERC-ordered study was never issued by the agency, meaning the 2012 study will be the study of record.

The Districts take their role of environmental stewardship seriously and are rightfully held to a high degree of accountability and transparency with all relicensing participants. We believe that all relicensing participants should be held to that same standard, especially agencies with mandatory conditioning authority under Section 4(e) and Section 18 of the Federal Power Act. We believe the record and the results of Tuolumne River-specific data should be the basis for decisions related to future license conditions. If mandatory conditioning agencies make decisions related to license conditions, it is incumbent upon them to provide logical and substantial support for their rationale, and make said information available to all participants.

That is not always the case. For example,

On June 10, 2011 the National Marine Fishery Service (NMFS) communicated in a letter to FERC:

"Given that fall-run Chinook salmon, CV steelhead, and Pacific lamprey are present in the lower Tuolumne River, it is reasonable that NMFS may exercise (through the Secretary of Commerce) its section 18 fishway prescriptive authority…."

NMFS's letter clearly signaled its intent to require fish passage at Don Pedro *prior* to the completion of any studies on the Tuolumne River below or upstream of Don Pedro Dam documenting the existence of any of the environmental conditions necessary to support the various life cycles of the species mentioned by FERC in its letter. Retrofitting a fish passage on to the 570 feet high Don Pedro would be very expensive to the Districts' ratepayers. Before mandating such an undertaking, NMFS should be required to justify its decision with proof that it will actually benefit the resources and the fish passage is the best available option, not merely the one NMFS likes the best.

In Closing

The Districts believe that the study results and record from the Don Pedro process indicate that there are a series of flow and non-flow mitigation measures that, if implemented, would dramatically increase the health and viability of the fishery on the Tuolumne River. Those measures could be negotiated and settled upon by all interested parties and then taken to FERC jointly as a set of future license conditions. Many of the agencies are not motivated to seek creative solutions that could bring about significant environmental improvements sooner rather than much later, but choose instead to wait and use their regulatory authority at the end of the process, delaying environmental improvements as well requiring conditions not supported by data.

The Districts want to do the right thing for our community, and the environment, and we think it is fair to want those actions to be based on science and the multiple studies we have conducted based on a collaborative process by all stakeholder. However, what we have found is no desire or incentive for certain resource agencies to engage in a meaningful way, throughout the process, waiting until the end when they have more bargaining power. We believe, when it comes to mandatory conditioning authority, there are no checks in the systems and improvements are needed.

In closing, Don Pedro is an emissions-free resource, providing resilience towards multiple global challenges such as climate change, drought, and water storage, flows for fish, irrigation, and other ancillary uses. TID encourages a more efficient and transparent process, recognizing both power and non-power benefits of Don Pedro. Significant hydropower licensing improvements would perhaps shield future license applicants from the same regulatory dilemma the Districts are currently facing.

Thank you.