November 10, 2017

Mario Bohorquez
Planning and Procurement Bureau Chief

RE: DRAFT LONG-TERM RENEWABLE RESOURCES PROCUREMENT PLAN

Dear Mr. Bohorquez,

As the Managing Member of the Marseilles Land & Water Company, we are pleased to have the opportunity to comment on the Illinois Power Agency's (IPA) draft Long-Term Renewable Resources Procurement Plan (Plan). Although mentioned as a qualifying renewable resource throughout the Plan, we note the lack of hydropower as an explicit part of the IPA's long term procurement plan even though hydropower is the original renewable form of electricity and produces over 7% of the nation's electricity at the lowest cost of any form of electricity over the long term. There is not only an existing fleet of qualifying hydropower assets within and adjacent to the State of Illinois that can be part of the IPA's plan, but significant undeveloped potential for new hydropower assets at existing non-powered dams throughout the State that contribute to the IPA's future procurement needs.

We note per the draft Plan, "the Agency's obligation to develop a Long-Term Renewable Resources Procurement Plan stems from new requirements included in Public Act 99-0906, known colloquially as the "Future Energy Jobs Act" and referred to herein as P.A. 99-0906. P.A. 99-0906, then known as Senate Bill 2814, was passed by both the Illinois House and Senate during the last days of the 99th General Assembly on December 1, 2016, and was signed into law by Illinois Governor Bruce Rauner on December 7, 2016 with an effective date of June 1, 2017".

If the goal of the plan is to have a long term plan to source future energy requirements and also try to provide good long term paying jobs then hydropower needs to be included. Many hydropower projects are over 100 years old and are still providing good, affordable clean energy. Hydropower development has a significant local economic impact that dwarfs that of a wind or solar development. A hydropower development is essentially an infrastructure project and inherently local. Over 75% of our project costs for our development will be spent locally. The massive amount of concrete required is sourced locally; most of the steel is procured and fabricated locally. The construction jobs generated include almost all the trades, including carpenters, electricians, millwrights, iron workers, plumbers and laborers. Neither wind nor solar can compare to the local effects on jobs that new hydropower development will generate.

When you learn about hydropower, you realize the numerous benefits which include:

- Hydropower is fueled by water, so it's a clean fuel source, meaning it won't pollute the air like power plants that burn fossil fuels, such as coal or natural gas.
- Hydroelectric power is a domestic source of energy, allowing each state to produce their own energy without being reliant on international fuel sources.
- Hydropower output can be changed quickly in response to changes in electrical demand because of the ability to control the flow of water. This ability is considered essential to electric transmission grid stability.
- Hydropower facilities can quickly go from zero power to maximum output. Because hydropower plants can generate power to the grid immediately, they provide essential back-up power during major electricity outages or disruptions.
- Today's hydropower turbines are capable of converting more than 90 percent of available energy into electricity which is more efficient than any other form of generation (the best fossil fuel power plant is only about 50 percent efficient).
- Hydropower facilities have the ability to start generation without an outside source of power. This service allows system operators to provide auxiliary power to more complex generation sources that could take hours or even days to start.
- The energy generated through hydropower relies on the water cycle, which is driven by the sun, making it a renewable power source, making it a more reliable and affordable source than fossil fuels that are rapidly being depleted.
- Hydropower is a perfect complement to wind and solar power acting as a safety when the wind isn't blowing or the sun isn't shining. Hydropower can improve the reliability and efficiency of wind and solar given its unique position to be forecasted and dispatched on demand.

According to the 2012 U.S. Department of Energy report, "An Assessment of Energy Potential at Non-Powered Dams in the United States", the State of Illinois alone has over 1,260 megawatts (MW) of potential hydropower capacity at existing non-powered dams that can be developed to help support the IPA's renewable resources procurement plan. Such potential presents a significant opportunity to bolster the IPA's short-term and long-term renewable energy objectives. Furthermore, development of this hydropower potential at existing non-powered dams within the State of Illinois falls directly in line with the requirements of Section 1-10 of the IPA Act for, "hydropower that does not involve new construction or significant expansion of hydropower dams", and the IPA Act's "public interest criteria" for:

1. Minimizing sulfur dioxide, nitrogen oxide, particulate matter and other pollution that adversely affects public health in Illinois;
2. Increasing fuel and resource diversity in Illinois;
3. Enhancing the reliability and resiliency of the electricity distribution system in Illinois;
4. Meeting goals to limit carbon dioxide emissions under federal or state law; and,
5. Contributing to a cleaner and healthier environment for the citizens of Illinois.

According to Section 3.16 of the IPA Plan, even if the minimum renewable energy credit (REC) procurement targets are met for solar and wind sources through 2021 and beyond, the total IPA minimum procurement targets will require procurement of a substantial number of REC's from technologies other than wind and solar. We propose hydropower, particularly hydropower from development of resources at currently non-powered dams within and adjacent to the State of Illinois, to be recognized as the technology that can not only fill a substantial portion of the IPA's REC procurement needs, but also serve to enhance the reliability and resiliency of Illinois' growing renewable generation portfolio.

Again we are talking about a long term renewable resources procurement plan for the State of Illinois. Hydropower assets are proven, long-lived generation assets that have provided the citizens of Illinois and the United States with clean, reliable, environmentally friendly, renewable power for over 100 years. When other renewable generation technologies may need to be retired and replaced in 30 years, our State's hydropower assets will still have another 70-plus years of useful life. Hydropower should be a key component of the IPA's long-term procurement strategy.

So let's make sure any long term plan that goes forth that incentivizes certain forms of power includes power that will be available to the state for the next hundred years. That is hydropower developed from Illinois existing and future hydropower assets.

Thank you for your time.

Sincerely,

Craig Engler

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