



U.S.'s Leading Hydropower Developer

2018



CORPORATE OVERVIEW





FFP New Hydro: Overview of Platform

FFP New Hydro is the leading developer of limited impact hydropower projects in the US

- Conventional Projects on Existing Dams
- Closed Loop Pumped storage
- Focused on Results
- Scale Development
- Tailored to Geographic Priorities
- Clustered Projects to create Economies of Scale
- Political Strategy coordinated with Offtake





FFP New Hydro: Corporate Structure







PROJECTS OVERVIEW

Conventional Hydropower Closed Loop Pumped Storage





FFP New Hydro: Location of Conventional Hydro Projects

FFP NH's 23 Advanced Projects are diversified across geographies (OH, PA, WV, MS, IN, KY, LA)







Swan Lake and Goldendale : Strategically Located



- Variable speed "closed-loop" projects
- Ideally located to integrate existing and future renewables
- Secure water rights; low level of controversy for a project of this scale/magnitude
- Projects support continued history of beneficial regional exchanges between California and the Pacific Northwest



REGULATORY CHALLENGES





Timeline to Commercial Operation

 Relative to other generating sources, hydropower takes a very long time to place in operation



Timeline to COD: Years

Disparity of development timelines effectively discourages hydropower development





New Hydro Process Challenges



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WQ Standards From USACE upfront

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Rve

Development

Constructive USACE Engagement in FERC Process (reliable feedback)

Bi-Partisan Support For Low Impact Hydro

- Economic development
- Local jobs growth through construction, management and operations
- Green power
- Enhancements to local recreational and educational opportunities
- Design to minimize environmental impact

Congress of the United States Washington, DC 20515

October 8, 2015

Chaiman Numan C. Bay Commissioners Tony Clark, Colette D. Honorable, Cheryl A. LaFleur, and Philip D. Mceller Foderal Luergy Regulatory Commission 888 First Street, NE Washington, DC 20426

Dear Chairman Bay and Commissioners,

We write to you to express our support for the expanded development of non-powered dams into hydropower facilities, especially those located in Ohio. We agree with the oll-cepeated testimony of Federal Energy Regulatory Commission commissioners and staff that hydropower is an essential part of America's energy mix and offers the benefits of a renewable, domestic energy source.

As Commission staff has testified before Congress, "There is a great deal of potential for the development of additional small hydropower projects ... (hroughout the country" (Director, Office of Energy Projects, July 29, 2010). We believe that the conversion of non-powered dams in Ohio into hydropower facilities will not only benefit Ohioans, but also help the Commission achieve one of the goals it established in its FY2014 – FY 2018. Strategie plan: to foster comains and environmental benefits through approval of hydropower projects.

It has been brought to our attention that six non-powered dams in Ohio (i.e., Rokeby, P-13411; Philo, P-13408; Multa, P-13406; Devela, P-13405; Lawell, P-13407; and Beverty, P-13404), located on the Muskingum River, are being converted into hyperbopwer facilities. This cluster of projects is planned to have a total capacity of 23 MW and to generate an average of 117.5 GWh of electricity per year. Final license applications for each of these projects were submitted to the Commission in Nevember 2012, Environmental Assessments for each of these were issued in August 2015 and identified relatively few areas of concern.

These projects will each create 100 to 150 jobs during construction and one-to-two full time jobs while the facilities operate – each has an expected lifespan of at least 75 years. Total investment in the six projects will exceed \$118 million. Each project will provide revenue to the state of Ohio and low-cost, price-stable, reliable renowable electricity for the people of Ohio.

The Muskingum River has long been a source of economic vitality to southeast Ohio. These projects will further entance the river's importance throughout the region by hringing jobs, investment and energy to the Muskingum River corridor. We are encouraged that the Commission appears to be making progress in fairly and expeditionsly evaluating the license applications. We look forward to a delay-free completion of this process.

Again, thank you for your efforts to promote hydropower development. Please keep us informed on the status of these projects and any concerns that the Commission or its staff may have about them.

Sinceroly,

Pat Tiberi Member of Congress

As we hear on Capitol Hill: "New Hydro on Existing Dams is a no-brainer"

OFFTAKE

FFP New Hydro: *Political and Offtake Strategy*

Multifaceted Offtake Strategy

- Political Ground Game in Every State
 - Local Outreach
 - Political Outreach
 - Local Lobbyists
 - State Level Lobbying
- Political Outreach At Federal Level
 - Congress: Key Committees, Districts
 - Executive Branch: WH, CEQ, Ag, DOE, Interior, DOD
 - NGOs
- Messaging and Support Follows Specific Priorities
 - Over \$1.5 Billion of Infrastructure Build
 - Thousands of Jobs created
 - Clean, Carbon free energy
 - Long term asset
- Offtake Goal
 - Offtake is driven by political and social priorities

FFP New Hydro: *Offtake Strategy*

Rve

Development

FFP New Hydro: Offtake Strategy

FFP New Hydro: *Offtake Strategy*

Example: Allegheny L&D 2

- Located in Pittsburgh, PA
- Navigational dam completed in 1935; owned and operated by Army Corps
- 17 MW; 83 GWh annually
- Local investment of over \$60 million

POWERHOUSE Section A

