

## FERC Commissioners Comment on Hydro



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Regulatory  
Commission*

**H**ydropower is an essential part of the U.S.'s electricity supply. New hydropower technologies that utilize ocean

waves, tides, and currents from free-flowing rivers hold significant potential, and may allow hydropower to play an even larger role in meeting the electricity supply needs of the U.S. and other countries. In effect, the new hydropower technologies may represent the last frontier for a major expansion of U.S. hydropower capacity.

These new technologies have the potential to provide a significant share of U.S. electricity supply. There are some significant challenges that must be overcome before that potential can be realized, however. These technologies have not been deployed commercially and their commercial viability has yet to be proved. There are also environmental, financial, and regulatory challenges.

The environmental issues are complicated by the fact that there is little scientific evidence on the effects of these new

technologies. That stands in stark contrast with the conventional hydropower technologies, which have operated for more than 100 years. It is much easier to forecast the environmental effects of an existing conventional hydropower project based on hard evidence of its operating history than to project the environmental effects of technologies with no operating history. There will be environmental effects from these technologies. Those effects must be carefully considered and mitigated.

There are financial challenges as well. These new technologies are either at the research and development stage or just starting demonstration. Financing is required to complete development and demonstrate the technologies. Then there is the cost of commercial deployment. Financing challenges and regulatory challenges are related. If the regulatory process is unable to accommodate these new technologies, it is unlikely financing for commercial deployment will be secured. If the regulatory process is uncertain or unproven, it may frustrate the potential of these technologies. In my view, an unpredictable process may present the greatest regulatory risks.

The FERC regulatory process is well established and well suited to handle the development of these new technologies. FERC has made adjustments as necessary to our regulatory processes to help realize the potential of new hydro-

power technologies.

Over the years, we have improved our licensing process to include early engagement between the project sponsor and stakeholders, earlier and more predictable study requirements, more certain timeframes, and overall reduced processing time. This approach is critical to ensure careful review of these new technologies.

FERC is working to ensure that laws written early in the twentieth century meet the needs of the new technologies of the twenty-first century. We have sufficient flexibility under the law to meet the challenges of these new technologies. For example, we used different license processes for the 1-MW Makah Bay ocean project off the coast of Oregon and the 10-MW Roosevelt Island project in the East River of New York City. We developed a new pilot project license designed to authorize technology demonstrations.

FERC is doing its part to help the new technologies prove their potential. Our regulatory process is sound, and we have demonstrated our flexibility.

In 2007 alone, FERC issued 35 preliminary permits for new hydropower technologies, 30 for current energy projects, four for ocean wave energy projects, and one for a tidal energy project. It is my hope these new technologies will overcome the remaining challenges that lay before them. ■