

FERC Commissioners Comment on Hydro



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Hydropower already makes a vital contribution to meeting the U.S.'s energy needs, providing approximately

78,000 MW of electrical generating capacity. To address the U.S.'s serious energy challenges, however, we must ensure that we are both making the most efficient use of our existing hydropower resources and promoting smart investment in new hydropower resources and innovative technologies.

Advanced technology offers great potential for making more efficient use of our existing hydropower resources. In 2005, the U.S. Climate Change Technology Program estimated that retrofitting advanced technologies and optimizing system operations at existing hydropower facilities would produce at least a 6 percent increase (about 5,000 MW) in capacity. These efficiency gains would complement the distinctive operational and environmental attributes of many hydropower facilities.

Recent studies also indicate great potential benefits from smart investment

in small hydropower projects. In a 2006 report to the U.S. Department of Energy, the Idaho National Laboratory identified more than 5,000 sites across the country that could be developed as small hydropower projects with a total hydropower potential of approximately 18,000 MW. The development of such distributed resources would not only provide new capacity, but also enhance reliability.

Another area that warrants exploration involves innovative technologies that produce electric power using currents and wave action. Such technologies have the potential to create opportunities beyond the traditional hydropower model that relies on dams or other diversion structures. While these technologies are in their infancy, with proponents primarily exploring the feasibility of possible projects, some estimates suggest that the potential for wave and current power could be over 350 terawatt-hours per year, or enough to meet nearly 10 percent of national demand. One particularly positive attribute of this new, renewable source of hydropower is that many of the most promising resource areas are in offshore locations close to large population (and thus load) centers. Such locations mean that these technologies could reduce congestion on our transmission system.

I look forward to building on the Federal Energy Regulatory Commission's efforts to date and promoting further

development in each of these areas. For example, the commission recognizes that the perception of a long and complex licensing process may discourage people from pursuing their interests in developing small hydropower projects. To address that concern, the commission's staff has sought to shorten and simplify the licensing process where possible and has recommended waiving certain aspects of the process in appropriate circumstances, such as where an applicant has chosen a site that minimizes environmental effects and has built a consensus among stakeholders regarding project issues. By increasing awareness of these steps that can expedite the licensing process, the commission can remove a significant obstacle to development of small hydro projects.

Similarly, the commission is taking steps to promote the development of innovative hydropower technologies. In October 2007, I was pleased to join Commissioner Phil Moeller at a conference in Portland, Oregon, on hydrokinetics. Building on that conference, the commission is examining regulatory requirements that may present unnecessary barriers to development of this technology.

The commission should and will continue to look for ways to promote efficient use of existing hydropower resources and smart investment in new hydropower resources and innovative technologies. ■