

UNITED STATES OF AMERICA 111 FERC ¶61,024  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;  
Nora Mead Brownell, Joseph T. Kelliher,  
and Suedeen G. Kelly.

Verdant Power LLC

Project No. 12178-001

DECLARATORY ORDER

(Issued April 14, 2005)

1. Verdant Power LLC has filed a petition for a declaratory order with respect to its proposal to temporarily put in place facilities to allow it to conduct testing at a site in the East River near New York City, New York. As discussed below, we are granting the petition, based on our finding that the contemplated activities do not require licensing under Part I of the Federal Power Act (FPA). This order is in the public interest because it clarifies that, under limited circumstances, experimental hydroelectric facilities may be tested without the need for a license.

**Background**

2. On May 30, 2002, Verdant filed an application for a preliminary permit, pursuant to section 4(f) of the FPA,<sup>1</sup> to study the proposed Roosevelt Island Tidal Energy Hydropower Project. The proposed project would consist of 494 21-kilowatt turbine generator units (a total of approximately 10 megawatts), to be located below the water surface on the East River off Roosevelt Island, in Queens County, New York, as well as power control and interconnection facilities to be located on the island. On September 2, 2002, the Commission issued the requested permit.<sup>2</sup>

3. On February 2, 2005, Verdant filed a petition requesting “relief from the requirements of hydropower licensing under the Federal Power Act.” Verdant states that it wants to test, for an 18-month period, six of the underwater turbine units referenced in its preliminary permit application, to evaluate the potential impacts of the technology on fish, navigation, and other non-developmental resources, as well as to gain operational

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<sup>1</sup> 16 U.S.C. § 797(f).

<sup>2</sup> See 100 FERC ¶ 62,162.

performance data. According to the company, it is leading the development in the United States of this experimental kinetic hydropower technology, and needs to test the turbines in order to complete operational and environmental studies at the East River site.

4. Verdant states that it would deploy the six turbines on 24-inch monopiles mounted on the river bottom, resulting in an underwater footprint of less than 20 square feet. The turbines would be marked by buoys. Underwater power cables from each turbine would lead to an onshore control room, where they would be connected via a generator controller and relay to the customer side of two 48-volt service meters. Power generated by the turbines would be delivered to two customers on Roosevelt Island.

5. On February 11, 2005, the Commission issued public notice of Verdant's petition. Timely comments were filed by the U.S. Department of the Interior, New York State Department of Environmental Conservation (New York DEC), Carolyn Elefant, and Tony DiLernia. New York DEC also filed a motion to intervene.

## **DISCUSSION**

6. Section 23(b) of the FPA<sup>3</sup> provides that

[i]t shall be unlawful for any person, State, or municipality, for the purpose of developing electric power, to construct, operate, or maintain any dam, water conduit, reservoir, power house, or other works incidental thereto across, along, or in any of the navigable waters of the United States, or upon any part of the public lands or reservations of the United States . . . except under and in accordance with . . . a license granted pursuant to this Act.

7. It is undisputed that the East River is a navigable water of the United States. Thus, section 23(b) applies on its face to facilities for the development of electric power that are located across, along, or in the river. The question remains whether the facilities proposed by Verdant to test the feasibility of the tidal power technology are such that they must be licensed.

8. The legislative history of section 23(b) is not of assistance here. We have found no indication that Congress, in establishing the Commission's licensing jurisdiction, considered the possibility that experimental facilities could be installed temporarily for the purpose of testing.

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<sup>3</sup> 16 U.S.C. § 817(b).

9. We conclude that in order to find that facilities such as those proposed by Verdant are not required to be licensed, we must make the following three findings: (1) the technology in question is experimental, (2) the proposed facilities are to be utilized for a short period for the purpose of conducting studies necessary to prepare a license application, and (3) power generated from the test project will not be transmitted into, or displace power from, the national electric energy grid.<sup>4</sup> Verdant's proposal is consistent with the first two parts of this test: the six turbines that it proposes to test represent experimental, tidal-power technology, and Verdant proposes to test the turbines for 18 months, for the purpose of conducting studies that are needed for it to prepare a license application. However, Verdant's proposal calls for it to provide power to two customers, which would displace power from the national electric energy grid, and thus would fail the third part of our test. If, however, Verdant does not transmit power into the grid, or displace power from it, Verdant will not require a license under Part I of the FPA to conduct the proposed, short-term tests of its experimental turbines.

10. This holding is limited to the facts of this case. Further, we emphasize that the fact that Verdant will not require a license under Part I of the FPA for the contemplated activities does not excuse it from compliance with any and all applicable federal, state, and local laws and regulations applicable to its activities.

11. New York DEC states that it is reviewing a pending application from Verdant for state permits relating to the pilot project. The agency asks that the Commission make clear that any action by the Commission does not authorize deployment of the entire project contemplated by Verdant and that we not make any factual conclusions regarding the potential environmental impacts of Verdant's activities.

12. As discussed above, the fact that we have determined that Verdant's temporary, experimental activities do not require a license under Part I of the FPA does not, in our view, free the company from the need to comply with applicable state and federal law. We are simply deciding that the facilities to be used for this short-term experiment are not required to be licensed. Verdant will have to satisfy all applicable state and federal requirements and provide agencies that do have jurisdiction over its activities with such environmental and other information as they may require. Further, because we have determined that a license is not required for the test period, we are not making any

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<sup>4</sup> We have previously held that, as long as a hydropower project is connected to the interstate electric power grid, either directly or indirectly, project power may displace power that would otherwise be provided by facilities connected to the grid, and thus would affect interstate commerce. *See, e.g., Yesteryear Power and Equipment*, 78 FERC ¶ 61,172 (1997); *Habersham Mills*, 57 FERC ¶ 61,351 (1991), *aff'd*, *Habersham Mills v. FERC*, 976 F.2d 1381 (11<sup>th</sup> Cir. 1992); *Fairfax County Water Authority*, 43 FERC ¶ 61,062 (1988). We are not prepared to hold that a project that would affect interstate commerce is not required to be licensed.

findings with respect to the environmental impacts of the experimental facilities. Should Verdant ultimately apply for a license for the long-term operation of its facilities, it will have to satisfy the requirements of our licensing regulations.

13. Interior reviews the history of activity on Verdant's preliminary permit, indicating its belief that Verdant has not provided sufficient detail with respect to its plans. Interior also notes that Verdant has applied to the U.S. Army Corps of Engineers with respect to its demonstration project, and reiterates its comments in that proceeding with respect to the need for more detail regarding the project, as well as its concerns that the project turbine blades could adversely affect fish and wildlife. Interior requests that if the Commission grants the relief requested, the Commission require Verdant to: (1) provide resource agencies with detailed environmental and engineering studies, (2) file with the Commission a schedule for developing and filing a license application, and (3) obtain a performance bond to ensure that the project can be decommissioned, if necessary.

14. Because we have determined that the experimental project, subject to the conditions herein, is not required to be licensed, we cannot impose the requirements that Interior suggests. However, our finding that Part I of the FPA is not applicable here does not in any way undercut the jurisdiction of other agencies under other applicable law, nor their ability to impose informational or procedural requirements on Verdant.

15. Tony DiLernia, who operates a charter sport fishing service in the area where the experimental facilities would be located, expresses concern that the facilities would adversely affect striped bass, and would limit the navigability of the river near the project site.

16. As was true with respect to Interior's comments, the fact that we have determined that the experimental project is not required to be licensed means that we do not have authority to address Mr. DiLernia's concerns. However, other agencies, such as the Coast Guard, the Corps, Interior, and New York DEC, may do so.

17. Attorney Carolyn Elefant urges the Commission not only to grant Verdant's petition, but to go further and create either an exemption program that waives licensing requirements for up to three years or a "mini license" to authorize five-year study licenses. She asserts that doing so will remove significant barriers to the development and commercialization of ocean, wave, and tidal technologies.

18. While we agree that it is important to encourage innovative energy technology, we are not prepared at this time to create blanket exemptions or a limited licensing program, which could raise significant legal, policy, and regulatory issues. We believe that the limited action we have taken here, recognizing that a specific project, under a specific set of facts, is not required to be licensed, is the appropriate response to Verdant's petition.

Project No. 12178-001

5

The Commission orders:

The petition filed by Verdant Power LLC on February 2, 2005, is granted as discussed herein, based on the experimental nature of the technology, the operation of the facilities for no more than 18 months for the purpose of conducting studies necessary to prepare a license application, and Verdant not delivering power into, or displacing power from, the interstate electric power grid.

By the Commission.

( S E A L )

Linda Mitry,  
Deputy Secretary.