

126 FERC ¶ 61,133  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Acting Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
and Philip D. Moeller.

City of Hastings, Minnesota

Project No. 4306-023

ORDER DENYING REHEARING AND ON CLARIFICATION

(Issued February 19, 2009)

1. On December 13, 2008, the Commission granted an application filed by the City of Hastings, Minnesota (City), licensee for the Mississippi Lock and Dam No. 2 Hydroelectric Project No. 4306, to amend its license to install two 35-kilowatt (kW) hydrokinetic turbines in the project's tailrace.<sup>1</sup> On January 12, 2009, the U.S. Department of the Interior (Interior) timely requested rehearing and clarification. As discussed below, we deny rehearing, provide clarification, and modify one article as requested by Interior.

**Background**

2. The Mississippi Lock and Dam No. 2 Hydroelectric Project is located at the U.S. Army Corps of Engineers' (Corps) Lock and Dam No. 2 on the Mississippi River at river mile 815.2.<sup>2</sup> The City's original project consists of a powerhouse, containing two 2.2-megawatt generating units, located between the lock system on the west side and the dam on the east side of the Corps' Lock and Dam No. 2, and a 1,000-foot-long transmission line.<sup>3</sup>

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<sup>1</sup> *City of Hastings, Minnesota*, 125 FERC ¶ 61,287 (2008) (December 13, 2008 Order).

<sup>2</sup> A 50-year license for the Mississippi Lock and Dam No. 2 Project was issued to the City of Hibbing, Minnesota, in 1983. *City of Hastings, Minnesota*, 24 FERC ¶ 61,020 (1983). The license was later transferred to the City of Hastings. *City of Hastings, Minnesota*, 31 FERC ¶ 62,308 (1985).

<sup>3</sup> The Lock and Dam No. 2 consists of the dam with two locks (one working and one abandoned in place) on the west side. More than 11,000 barges and 12,000

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3. The City proposed to install a 68-foot-wide and 40-foot-long floating barge with two 35-kW hydrokinetic turbines suspended below and two generating units attached above (also referred to as the hydrokinetic array), in the tailrace 50 feet downstream of the City's existing powerhouse. The floating barge would be tethered to the dam structure and anchored for stability. Operation of the City's project would not change, and the turbines would operate only when the project's powerhouse is in operation.<sup>4</sup>

4. In 1988, Congress established the Mississippi National River Recreation Area (Recreation Area), which encompasses 72 miles of the Mississippi River Corridor from above the St. Paul-Minneapolis Metropolitan Area to just below the City of Hastings and including the site of Project No. 4306.<sup>5</sup> The Recreation Area is managed by Interior's National Park Service. The legislation establishing the Recreation Area requires the Commission to notify Interior of any intended licensing actions within the Recreation Area.<sup>6</sup> Interior then has 60 days to review the proposed undertaking and assess its compatibility with the Recreation Area's Comprehensive Management Plan (Management Plan). If it determines that the proposed undertaking is incompatible with the plan, it is to notify the Commission and request that it take actions necessary to conform the proposed undertaking to the Management Plan.

5. Commission staff, by letter dated September 29, 2008, sent Interior a copy of staff's environmental assessment (EA) of the proposed amendment, stated staff's conclusion that the proposed amendment is not inconsistent with the Management Plan, and requested that Interior complete its review of the proposal.

6. On December 1, 2008, Interior filed a letter with the Commission stating that it did not have enough information to make a compatibility determination. Interior stated that a 3-5 year pilot project<sup>7</sup> license would be appropriate for this project (rather than amending

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recreational boaters pass through the working lock annually. The dam impounds the 32.4-mile-long Pool 2, and marks the upstream extent of the 18.2-mile-long Pool 3.

<sup>4</sup> Since the barge unit floats on the surface of the water, the operation of the two turbine units does not depend on river water levels.

<sup>5</sup> The Recreation Area was established in Title VII of the Arizona-Idaho Conservation Act of 1988, Pub. L. No. 100-696, codified at 16 U.S.C. § 460zz (2006).

<sup>6</sup> 16 U.S.C. § 460zz-3(b)(1) (2006).

<sup>7</sup> Commission staff has proposed a pilot licensing process for certain hydrokinetic projects. A pilot license would have a term of 3-5 years, at the end of which the project would be removed. The pilot license would be used for projects that are small (five megawatts or less), are removable or able to be shut down quickly, are not located in

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the existing license) because a short-term authorization would allow testing of the project while minimizing the risk of adverse environmental impacts that might result from operation of this new technology. Interior stated that after a pilot project period, it could assess the compatibility of the hydrokinetic array with the Management Plan.

7. The Commission agreed with staff's finding that the amendment was not inconsistent with the Management Plan and granted the amendment. The Commission declined to issue a 3-5 year pilot license, and instead included special protections in the license to ensure that the Recreation Area is fully protected.<sup>8</sup>

8. Between December 23, 2008, and January 5, 2009, the City installed the barge and one of the authorized turbine/generator sets.

## **Discussion**

### **A. Rehearing request**

9. Interior contends that the Commission did not base its decision to approve the amendment on substantial evidence, but rather on speculation that the project would have minimal environmental impacts due to its small size and its location. Specifically, Interior contends that the Commission admitted that it did not have enough information to evaluate the impacts of the proposed amendment on fishery resources or migratory birds.<sup>9</sup> Interior asserts that it is incorrect to assume that a small project involving new technology will have less environmental impact than a larger project using tested technology.<sup>10</sup> Interior contends that the Commission should have issued a 3-to-5 year pilot license, under which the licensee would evaluate the effects of the project, rather than issuing an amendment, which will allow the hydrokinetic facilities to remain in place for the remaining 25 years of the project license.<sup>11</sup>

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sensitive areas, and are for the purpose of testing new technologies or locating appropriate sites. *See* Notice of Technical Conference and Soliciting Comments, Docket No. AD07-14-000 (issued July 19, 2007).

<sup>8</sup> December 13, 2008 Order, 125 FERC ¶ 61,287 at P 13.

<sup>9</sup> Request for rehearing at 6, citing EA at 31-33; 43.

<sup>10</sup> *Id.* at 7.

<sup>11</sup> *Id.* at 7-8.

10. We agree with Interior that the size of a project will not always be a predictor of its environmental impact; that determination can only be made based on a site-specific analysis. While the Commission noted in the December 13, 2008 Order “the expected minimal environmental effects due to the small size of the project and the location within the tailrace of an existing project”<sup>12</sup> as a factor in our decision, this was not the only factor.<sup>13</sup> Moreover, as discussed below, the decision was not based on speculation, but rather rested upon a record that included a detailed environmental analysis. While the Commission did not have exact information on all of the potential impacts of the new facilities on all resources (in part because some information does not exist due to the new nature of the technology at hand), the Commission had substantial evidence on which to base its conclusion that the proposed action would not constitute a major federal action significantly affecting the quality of the human environment, and that it would maintain a beneficial, dependable, inexpensive source of renewable energy, and thus was best adapted to a comprehensive plan for improving or developing the Mississippi River.<sup>14</sup>

11. As explained in the December 13, 2008 Order, the Commission considered the anticipated effect of the proposal on water quality, fisheries, geology/soils, terrestrial resources, threatened and endangered species, wetlands, recreation, cultural and historic resources, land use, and aesthetics.<sup>15</sup> In the EA for the amendment proposal, Commission staff examined the potential effects of the installation and operation of the barge and two hydrokinetic turbines on these resources, and concluded that the proposal would have no adverse effects on geology or soils, wildlife habitat, recreation, cultural or historic resources, land use, or aesthetics.<sup>16</sup> The EA found that effects on water quality, fish, and diving birds are likely to be minor, but that additional monitoring of these

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<sup>12</sup> 125 FERC ¶ 61,287 at P 13.

<sup>13</sup> *See id.* at P 57, noting that issuance of the amendment would result in dependable, inexpensive energy, that required environmental measures would protect affected resources, and that the use of renewable power may offset the use of fossil-fueled generation.

<sup>14</sup> Interior’s argument that the Commission should have issued a pilot license, rather than approving the amendment, seems inconsistent with its claim that the Commission lacked substantial evidence to support its decision. The Commission is required to support any decision under the FPA with substantial evidence, *see* 16 U.S.C. § 825l(b) (2006). We could issue neither a 5-year nor a 25-year authorization in the absence of substantial evidence.

<sup>15</sup> *See* Commission staff’s September 26, 2008 EA.

<sup>16</sup> *Id.* at 54.

resources is needed to fully evaluate the consequences of turbine operation.<sup>17</sup> The EA provided substantial information on which to base our decision. While the EA recognized there is a need for additional information, such information cannot be obtained until the units themselves are in the water and tested. The Federal Power Act does not require the Commission to have perfect information before taking a licensing action, or finding all environmental concerns to be definitively resolved before issuing a license.<sup>18</sup> Here, the Commission had enough information to proceed and to develop measures to protect the environment.

12. In deciding whether, or under what conditions, to authorize the proposed amendment, the Commission considered, not only the information and conclusions in the EA, but also the small geographic scope of the barge and turbines, the ease of their removal, the existing condition of the area (that there is already a dam and hydro project at the site), and mitigation measures available in the event adverse impacts were observed (ability to order modifications to structures or operations or to order removal of the barge and turbines, if warranted). In approving the amendment, the Commission included requirements to obtain the additional information,<sup>19</sup> and specifically reserved in Article 63 the Commission's authority to require immediate modification of turbine operation or removal of the turbines/barge, if monitoring results show adverse effects on water quality, fish, or diving birds.

13. By having the project subject to strict safeguards for the public and environmental resources which could potentially lead to project modification, shutdown, or complete removal, the Commission has ensured the area is adequately protected. Interior has provided no explanation of how these measures do not ensure that the area is adequately safeguarded. However, if at any time Interior has information to support a finding by it

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<sup>17</sup> *Id.*

<sup>18</sup> *See, e.g., Idaho Power Company*, 108 FERC ¶ 61,129, at P 41 (2004), *reh'g denied*, 110 FERC ¶ 61,242 (2005), *aff'd Idaho Rivers United v. FERC*, 189 Fed. Appx. 629, 2006 U.S. App. Lexis 17566 (9<sup>th</sup> Cir. 2006).

<sup>19</sup> The Commission included in the amendment measures to: monitor water quality (temperature, dissolved oxygen, and turbidity) for 3 months following installation of the turbines and to evaluate fish survival through the turbines using the HI-Z Turb'N Tag (balloon tag) tag and recapture methodology; document and protect native freshwater mussels, including the listed Higgins' eye pearl mussel, if encountered during anchoring of the turbine/barge; document the presence of zebra mussels, if encountered during anchoring, and to follow standard procedures to prevent the spread of this invasive species; develop a control plan for zebra mussels; and develop and implement a bird monitoring plan.

that the barge and turbines are incompatible with the Recreation Area's Management Plan, it may present that information to the Commission, and the Commission can exercise its authority to take any appropriate action.

### **B. Request for Clarification**

14. Interior asks the Commission to amend the license to clarify which studies and plans identified in the following license articles are required to be filed prior to commencing operation of the hydrokinetic turbines:<sup>20</sup> Articles 61 and 62 (Safety and Removal Plans); Article 65 (Fish Entrainment and Survival Monitoring Plan); Article 66 (Mussel Survey and Relocation); Article 68 (Mussel Control and Monitoring Plan); and Article 69 (Bird Monitoring Plan).

15. The plans required under Articles 65, 66, 68, and 69, by their terms, need not be filed and approved before the licensee can begin operating the hydrokinetic turbines.

16. However, Articles 61 and 62, by their terms, require that the Safety and Removal Plans be filed before the licensee may begin installation of the barge and turbines. Article 61 further provides that project operation may not begin until after the Commission's Regional Engineer has reviewed and commented on the Safety Plan. The City filed draft plans with the Commission (and concurrently provided copies to the relevant agencies, including Interior).<sup>21</sup> The Regional Engineer of the Commission's

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<sup>20</sup> Request for rehearing at 9-10.

<sup>21</sup> Letters filed December 17 and 23, 2008. Due to concerns about weather conditions that might delay installation, the City requested that the draft plans be accepted as conditionally complying with Articles 61 and 62, pending completion of the consultation requirements of those articles. Interior states that it is concerned that the December 23, 2008 authorization to commence placement of the barge and generating equipment was in contravention of Article 62 because the authorization was issued before the licensee had completed the consultation requirements of that article. However, Interior did not make this argument in the Article 62 proceeding. Nor did it seek rehearing of the December 23, 2008 authorization. In the instant proceeding, Interior does not argue that the authorization should be rescinded or that the Commission should take any action on this matter. Rather, it appears that Interior is seeking clarification of Article 62's requirements. However, to the extent that Interior intended to seek rehearing on this issue, Interior has waived the argument by not including it in the "Statement of Issues" section of its rehearing, as required by 18 C.F.R. § 375.713(c)(2) (2008). In any event, it was clearly within Commission staff's discretion to act on the City's December 23, 2008 request, which was essentially a request to waive the pre-filing consultation requirements of Article 62. *See* 18 C.F.R. § 375.308(c)(9) (2008).

Chicago Regional Office by letter dated December 23, 2008, found that the filings addressed the Commission's pre-installation requirements. The Regional Engineer authorized the commencement of installation, but stated that operation may not commence until the safety plan required by Article 61 is approved.<sup>22</sup>

17. Interior also asks that Article 70 be modified. Article 70 of the December 13, 2008 Order directs the City to place signage at the Lock and Dam No. 2 observation deck and nearby Lake Rebecca Park to educate the public about the hydrokinetic technology being used at the project, and to advise the public of safety precautions and restrictions for boating in the vicinity of Lock and Dam No. 2 and the tailrace area. Interior expresses concern that the locations identified may not be the best to achieve the stated objectives, and recommends that the City consult with it and the Corps as to the location of the signs.<sup>23</sup> We agree, and we are modifying Article 70 accordingly.

The Commission orders:

(A) The request for rehearing filed on January 12, 2009, by the U.S. Department of the Interior is denied.

(B) The December 13, 2008 Order has been clarified as requested by the U.S. Department of the Interior in its January 12, 2009 filing.

(C) Article 70 of the December 13, 2008 Order is modified to read:

Article 70. Interpretive Signage. Within 6 months of the date of this order, the licensee shall design and install, in consultation with the National Park Service and U.S. Army Corp of Engineers (Corps) regarding appropriate language and sign placement, interpretive signage to educate the public about the hydrokinetic technology being used at the project, and to advise the public of safety precautions and restrictions for boating in the vicinity of Lock and Dam No. 2 and the tailrace area.

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<sup>22</sup> In her December 23, 2008 letter, the Regional Engineer also noted that operation could not commence until the final Memorandum of Agreement (MOA) with the Corps of Engineers required by Article 59 has been filed. The City filed the MOA on December 17, 2008, but noted in its filing that due to some additional modifications made to the MOA at the request of the Corps, the City would be filing a revised MOA in the near future.

<sup>23</sup> Request for rehearing at 10.

The licensee shall file with the Commission within 30 days of installation, documentation of the installation and copies of correspondence with the National Park Service and Corps. The documentation of installation shall include photographs of the signage, a description of the information displayed on the signs, and a map depicting the locations of the signs.

By the Commission. Commissioner Kelliher is not participating.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.