

174 FERC ¶ 61,039  
DEPARTMENT OF ENERGY  
FEDERAL ENERGY REGULATORY COMMISSION

[Docket No. RM21-9-000]

Financial Assurance Measures for Hydroelectric Projects

(January 19, 2021)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Notice of Inquiry.

SUMMARY: The Federal Energy Regulatory Commission (Commission) is inviting comments on what changes, if any, the Commission should make to its practices for requiring financial assurance measures in licenses and other authorizations for hydroelectric projects.

DATES: Comments are due **[INSERT DATE 60 days after date of publication in the FEDERAL REGISTER]**.

ADDRESSES: Comments, identified by Docket No. RM21-9-000, may be filed in the following ways:

- Agency website: Electronic filing through <http://www.ferc.gov>. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format.
- Mail: Those unable to file electronically may mail comments via the U.S. Postal Service to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE, Washington, DC 20426. Hand-delivered comments or comments sent via any other carrier should be delivered to: Federal

Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland  
20852.

*Instructions:* For detailed instructions on submitting comments, see the Comment  
Procedures Section of this document.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION:

174 FERC ¶ 61,039  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Financial Assurance Measures for Hydroelectric  
Projects

Docket No. RM21-9-000

NOTICE OF INQUIRY

(January 19, 2021)

1. In this Notice of Inquiry, the Federal Energy Regulatory Commission (Commission) seeks comments on whether, and if so, how the Commission should require additional financial assurance mechanisms in the licenses<sup>1</sup> and other authorizations it issues for hydroelectric projects, to ensure that licensees have the capability to carry out license requirements and, particularly, to maintain their projects in safe condition.

**I. Background**

2. Section 4(e) of the Federal Power Act (FPA) authorizes the Commission to issue licenses “for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient . . . for the development, transmission, and utilization of power.”<sup>2</sup> Approximately 1,600 hydroelectric projects throughout the United States are under

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<sup>1</sup> Use of the word “license” herein refers to both licenses and exemptions or licensees and exemptees, unless otherwise specified.

<sup>2</sup> 16 U.S.C. 797(e).

Commission license. In issuing these hydroelectric licenses, the Commission is required to consider power and development purposes and “give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality.”<sup>3</sup> Section 10(a) of the FPA requires that any project for which the Commission issues a license be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and use of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.<sup>4</sup>

3. Section 10(c) of the FPA also requires licensees to “maintain the project works in a condition of repair adequate for the purposes of navigation and for the efficient operation of said works in the development and transmission of power, . . . make all necessary renewals and replacements, . . . establish and maintain adequate depreciation reserves for such purposes, . . . so maintain and operate said works as not to impair

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<sup>3</sup> *Id.*

<sup>4</sup> 16 U.S.C. 803(a).

navigation, and . . . conform to such rules and regulations as the Commission may from time to time prescribe for the protection of life, health, and property.”<sup>5</sup>

4. In making its public interest determination under section 10(a), the Commission considers a number of factors, including the economic benefits of project power. The basic purpose of the Commission’s economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and reasonable alternatives to project power. As articulated in *Mead Corp.*, project economics is one of many factors the Commission considers in determining whether or not, and under what conditions to issue a license.<sup>6</sup> Ultimately, it is up to the applicant to decide whether to accept a license as conditioned and any financial risks that entails. However, the *Mead Corp.* analysis is intended only to provide a rough estimate of the cost of project power compared to that of alternative energy sources: it is not intended to show whether and to what degree the project will have a positive cash flow over the life of the license. The Commission has explained that making predictions of long-term project economics would involve speculation as there are many variables, known and unknown.<sup>7</sup>

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<sup>5</sup> *Id.*

<sup>6</sup> 72 FERC ¶ 61,027, at 61,069 (1995). For example, the Commission will impose reasonable conditions, regardless of their impact on project economics. *See City of Tacoma, Wash.*, 84 FERC ¶ 61,107 (1998), *aff’d in pertinent part*, *City of Tacoma, Wash. v. FERC*, 460 F.3d 53 (D.C. Cir. 2006).

<sup>7</sup> *See Mead Corp.*, 72 FERC at 61,068 (explaining that long-term economic analyses require many assumptions and that even under relatively stable conditions, “such forecasts could never be more than a general guide”).

5. The Commission has taken steps to protect against the failure of a project sponsor's financial planning. For example, to reduce the risk that a project under construction could be abandoned before completion of construction because of inadequate funds, the Commission has required the licensee to file a financing plan prior to beginning construction.<sup>8</sup> Initially, financing plans were included in original licenses or relicenses with extensive new construction to ensure that construction could be completed;<sup>9</sup> however, the financing plan article has been modified to ensure funds are available for operation and maintenance in addition to construction.<sup>10</sup> Accordingly, the Commission currently includes a financing plan article in licenses that authorize new construction.<sup>11</sup> This article requires licensees to file a project financing plan with the Commission to show that the licensee has the necessary funds to complete project construction and to operate and maintain the project.<sup>12</sup> This article, however, does not

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<sup>8</sup> See, e.g., *City of Le Claire, Iowa*, 74 FERC ¶ 61,127, at 61,462 (1996). In requiring financing plans, the Commission has explained that it is concerned not only about potential environmental impacts associated with a partially constructed project, but also with ensuring that projects are developed in a timely and diligent manner. See, e.g., *Clark Canyon Hydro, LLC*, 150 FERC ¶ 61,195, at P 44 (2015); see also *City of Augusta, Ky.*, 72 FERC ¶ 61,114, at 61,594 (1995).

<sup>9</sup> E.g., *Halecrest Co.*, 60 FERC ¶ 61,121 (1992).

<sup>10</sup> E.g., *Marseilles Land and Water Co.*, 137 FERC ¶ 62,235, at art. 307 (2011), *order on reh'g and clarification*, 138 FERC ¶ 61,120 (2012).

<sup>11</sup> License amendments that approve construction for significant modifications to project facilities may also include financing plan requirements. See, e.g., *BMB Enters., Inc.*, 147 FERC ¶ 62,044, at art. 206 (2014).

<sup>12</sup> E.g., *Kenai Hydro, LLC*, 168 FERC ¶ 61,125, at P 109 and art. 207 (2019).

require a licensee to demonstrate the ability to finance unknown future obligations that may arise from environmental concerns or significant dam safety issues.

6. In rare cases, the Commission has also included a requirement to file a financial assurance plan.<sup>13</sup> The financial assurance article requires licensees to submit a plan that identifies the costs of project facilities that would be removed, secured in-place, or otherwise modified to ensure public safety, as well as other measures needed to protect environmental resources, in the event the licensee cannot complete project construction or is unable to operate the project once construction is complete. After approval of the financial assurance plan and before beginning ground disturbing activities, the licensee must obtain a bond or equivalent financial instrument to ensure the licensee has the economic means to implement the plan. The licensee is also required to file annual reports to document that the bond or equivalent financial instrument remains in effect for the ensuing year.

7. However, the vast majority of existing licenses do not include requirements addressing whether a licensee can afford ongoing operation and maintenance expenses, required environmental or safety measures, or measures required to ensure the facility can meet future dam safety requirements.

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<sup>13</sup> See, e.g., *PacifiCorp*, 144 FERC ¶ 62,239, at art. 307 (2013) (requiring license transferee to file financial assurance plan to demonstrate it had funds necessary to operate and maintain project). See also *Marseilles Land and Water Co.*, 137 FERC ¶ 62,235 at P 80 n.46 (requiring financial assurance plan in addition to the financing plan for an original license, based on “a reasonable possibility that the licensee could find itself in the position of having insufficient funds or project land rights to continue constructing or operating the . . . Project in the absence of a Financial Assurance Plan”).

8. Non-operational or non-compliant projects can pose public safety hazards in the event of a dam failure or breach, as demonstrated by the failure of the Edenville and Sanford dams near Midland, Michigan, on May 19, 2020. The cause of these dam failures is still under investigation. Nonetheless, the licensee of both projects had for many years failed to comply with dam safety directives, at least in part due to the alleged lack of financial capacity to meet Commission requirements, which resulted in the Commission revoking the license for the Edenville project in 2018.<sup>14</sup> The dam failures created an immediate safety hazard requiring thousands to evacuate, and estimates to repair and restore the dams have been more than \$300 million dollars, which does not include the damages that property owners affected by the flooding may have suffered.

9. While significant dam failures have fortunately been very rare, the Commission has seen increasing numbers of projects that are non-operational or out of compliance with their license conditions, where licensees have stated that they cannot afford to operate or maintain the projects or implement required environmental or safety measures. Commission staff regularly works with these licensees to bring these projects back into operation or compliance, but only with mixed success.<sup>15</sup>

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<sup>14</sup> See *Boyce Hydro Power, LLC*, 164 FERC ¶ 61,178 (2018) (revoking the license for the Edenville Project No. 10808 due to the licensee's "longstanding failure to increase the project's spillway capacity to safely pass flood flows, as well as its failure to comply with its license, the Commission's regulations, and a June 15, 2017 Compliance Order"), *order on reh'g*, 166 FERC ¶ 61,029 (2019).

<sup>15</sup> Section 6.4 of the Commission's regulations gives licensees three years to resolve their non-operating issues. 18 CFR 6.4.



10. As of December 2020, Commission staff is aware of approximately 88 projects that are non-operational and is working with licensees of non-operating projects to restore operations. A licensee's lack of financial resources is often a key factor in a project becoming non-operational. For those licensees that cannot restore operation, some licensees apply to surrender their licenses. However, for those where operating the project or bringing the project into compliance is too financially burdensome, the surrender process may also be economically infeasible. Where licensees show the inability or unwillingness to maintain their projects and do not voluntarily seek surrender, the Commission has terminated licenses by implied surrender.<sup>16</sup> But implied surrender may not be appropriate where environmental or dam safety measures need to be taken to leave the project in acceptable condition. In addition to voluntary and implied surrender, the Commission has enforcement mechanisms at its disposal, including license revocation, the imposition of civil penalties, seeking injunction relief in federal court, and referral to the Department of Justice for criminal prosecution. These measures, while appropriate in some cases, may not result in necessary license compliance.

11. Based on the concern that inadequate financing may result in threats to public safety and environmental resources, the Commission is considering whether additional

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<sup>16</sup> See, e.g., *Brentwood Dam Ventures, LLC*, 158 FERC ¶ 61,037 (2017) (terminating the exemption for the Exeter River Hydro #1 Project No. 4254 by implied surrender because the exemptee did not make the necessary repairs to restore project operation); see also *James Lichoulas Jr.*, 124 FERC ¶ 61,255 (2008) (terminating the license for the Appleton Trust Project No. 9300 by implied surrender because the licensee failed to restore project operation after more than a decade), *aff'd*, *Lichoulas v. FERC*, 600 F.3d 769 (D.C. Cir. 2010).

measures should be taken to ensure licensees have the financial resources to operate and maintain their projects for the life of the project, including under unforeseen circumstances. We recognize that imposing additional financial requirements may pose difficulties for licensees, particularly those operating small projects, but are also cognizant of our responsibilities to the public. Therefore, the Commission is soliciting public comment on potential mechanisms to ensure that licensees can afford required safety measures, ongoing project operation and maintenance expenses, and license compliance to prevent future safety and environmental hazards.

## **II. Subject of the Notice of Inquiry**

12. The Commission seeks comments on whether, and, if so, how the Commission should revise its practices for requiring financial assurance mechanisms in the licenses and other authorizations it issues for hydroelectric projects. First, we solicit comments regarding how and when the Commission should require financial assurance from licensees. Specifically, should a financial assurance requirement be included in original licenses and/or on relicense? If on relicense, should such a requirement be included in both new licenses for major projects and subsequent licenses for minor projects? Should the Commission also require financial assurance requirements in other authorizations, such as all exemptions, amendment requests, and transfers? Should the Commission reopen licenses to impose financial assurance measures? Should the Commission require licensees to reaffirm or recertify that they have adequate financial assurance instruments every few years during their license term? If so, how often during a license term should the Commission require licensees to demonstrate that they still have adequate finances?

Should the Commission require licensees to notify the Commission if the circumstances underlying their financial assurance instruments have changed?

13. Below we outline three potential options that Commission staff has identified for establishing financial assurance mechanisms in hydroelectric licenses: (1) requiring licensees to obtain bonds to cover the costs of safety measures and project operation and maintenance; (2) establishing an industry-wide trust or remediation fund or requiring licensees to maintain an individual trust, escrow, or remediation fund; or (3) requiring licensees to obtain insurance policies for unforeseen safety hazards or dam failures. We encourage comments on these options as well as the suggestion of any other alternatives. While the Commission will consider all comments filed, the Commission may not, and is not required to, take further action.

**A. Bonds**

14. The Commission could require licensees to obtain bonds to ensure they have sufficient funds to pay for operation, maintenance, environmental, and safety measures throughout the duration of the license. The Commission seeks comment on this option and the following questions:

- i. Should the Commission require licensees to obtain bonds as a financial assurance mechanism?
- ii. If so, how should the Commission determine the amount of the bond or what factors should the Commission consider when determining the bond amount?

- iii. Are bonds within the resources of all licensees, including those of small hydroelectric projects. Could the Commission mitigate these expenses?
- iv. What other challenges would bond requirements pose to individual licensees, municipal licensees, the public, or the Commission?

**B. Trust, Escrow, or Remediation Fund**

15. The Commission could establish an industry-wide trust or remediation fund to pay for necessary repairs and remediation, similar to the Environmental Protection Agency's superfund program, or could require licensees to maintain an individual trust or remediation fund that is similar to what is done in the nuclear industry. The Commission could also require funds to be placed in escrow. The Commission seeks comment on this option and the following questions:

- i. Should the Commission establish an industry-wide trust or fund as a financial assurance mechanism?
- ii. If so, how should the Commission generate funds for the trust? Should the Commission consider using its annual charge authority to fund an industry-wide trust?
- iii. How should the Commission determine the appropriate level of funds for an industry-wide trust?
- iv. How should the Commission determine how funds are distributed?
- v. Should the Commission require licensees to maintain an individual trust or escrow fund as a financial assurance mechanism?

- vi. For individual trusts, how should the Commission determine the appropriate level of the trust and what factors should the Commission consider in determining amounts?
- vii. For individual escrows, should the Commission require licensees to retain a certain percentage of generation receipts in an escrow account?
- viii. What other challenges would an industry-wide or individual trust pose on individual licensees, small hydroelectric project licensees, municipal licensees, the public, or the Commission?

**C. Insurance**

16. The Commission could require licensees to obtain insurance policies to cover costs in the event of a safety hazard or dam failure. The Commission seeks comment on this option and the following questions:

- i. Should the Commission require licensees to obtain insurance policies as a financial assurance mechanism for project maintenance?
- ii. How should the Commission determine the amount of required coverage of an insurance policy or what factors should the Commission consider when determining the amount of coverage?
- iii. What other challenges would a requirement to obtain an insurance policy pose on individual licensees, small hydroelectric project licensees, municipal licensees, the public, or the Commission?

### **III. Comment Procedures**

17. The Commission invites interested persons to submit comments and other information on the matters, issues, and specific questions identified in this notice, and any alternative proposals that commenters may wish to discuss. Comments are due **[INSERT DATE 60 days after publication in the FEDERAL REGISTER]**.

Comments must refer to Docket No. RM21-9-000, and must include the commenter's name, the organization they represent, if applicable, and their address.

18. The Commission encourages comments to be filed electronically via the eFiling link on the Commission's web site at <http://www.ferc.gov>. The Commission accepts most standard word processing formats. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format. Commenters filing electronically do not need to make a paper filing.

19. In lieu of electronic filing, you may submit a paper copy. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426.

Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852. The first page of any filing should include docket number RM21-9-000.

20. All comments will be placed in the Commission's public files and may be viewed, printed, or downloaded remotely as described in the Document Availability section

below. Commenters on this proposal are not required to serve copies of their comments on other commenters.

#### **IV. Document Availability**

21. In addition to publishing the full text of this document in the Federal Register, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through the Commission's Home Page (<http://www.ferc.gov>). At this time, the Commission has suspended access to the Commission's Public Reference Room due to the President's March 13, 2020 proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID-19).

22. From the Commission's Home Page on the Internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

23. User assistance is available for eLibrary and the Commission's website during normal business hours from the Commission's Online Support at (202) 502-6652 (toll free at 1-866-208-3676) or email at [ferconlinesupport@ferc.gov](mailto:ferconlinesupport@ferc.gov), or the Public Reference

Room at (202) 502-8371, TTY (202)502-8659. E-mail the Public Reference Room at [public.referenceroom@ferc.gov](mailto:public.referenceroom@ferc.gov).

By direction of the Commission.

( S E A L )

Kimberly D. Bose,  
Secretary.