

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426  
January 24, 2023

OFFICE OF ENERGY PROJECTS

Project No. 2459-279 – West Virginia  
Pennsylvania  
Lake Lynn Hydroelectric Project  
Lake Lynn Generation, LLC

VIA FERC Service

Jody Smet  
Lake Lynn Generation, LLC  
7315 Wisconsin Avenue, Suite 1100W  
Bethesda, Maryland 20814

**Reference: Deficiency of License Application and Additional Information Request  
for the Lake Lynn Hydroelectric Project**

Dear Ms. Smet:

Lake Lynn Generation, LLC's (Lake Lynn) relicense application for the Lake Lynn Hydroelectric Project No. 2459 that was filed on November 30, 2022, does not conform to the requirements of the Commission's regulations. A list of deficiencies is attached in Schedule A. Under section 4.32(e)(1)(i) of the Commission's regulations, Lake Lynn has 90 days from the date of this letter to correct the deficiencies in the application.

In addition, requests for additional information made pursuant to section 4.32(g) of the Commission's regulations are attached in Schedule B. Please provide this information within 90 days from the date of this letter.

If the correction of any deficiency or requested information causes another part of the application to be inaccurate, that part must be revised and refiled by the due date. Also, please be aware that further requests for additional information may be sent to the applicant at any time before the Commission takes final action on the application.

Within 5 days of receipt, provide a copy of this letter to all agencies you will consult in response to this additional information request. Then, when you file the requested information with the Commission, you must provide a complete copy of the

information to each agency consulted under 18 C.F.R. section 16.8 of the Commission's regulations.

The Commission strongly encourages electronic filing. Please file the requested information using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.aspx>. For assistance, please contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov), (866) 208-3676 (toll free), or (202) 502-8659 (TTY). 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, D.C. 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 P-2459-279.

Please contact Joshua Dub at (202) 502-8138, or via email at [Joshua.dub@ferc.gov](mailto:Joshua.dub@ferc.gov), if you have any questions.

Sincerely,

Stephen Bowler, Chief  
South Branch  
Division of Hydropower Licensing

Attachments: Schedule A – Deficiencies  
Schedule B – Additional Information

## DEFICIENCIES

### Exhibit E

1. Section 4.51(f)(3)(ii) of the Commission's regulations requires that the FLA include a report on fish, wildlife, and botanical resources that contains a description of any measures or facilities recommended by the agencies consulted for the mitigation of impacts on fish, wildlife, and botanical resources, or for the protection or improvement of those resources. Further, section 4.51(f)(3)(iii) requires a statement of any existing measures or facilities to be continued or maintained and any measures or facilities proposed by the applicant for the mitigation of impacts on fish, wildlife, and botanical resources, or for the protection or improvement of such resources, including an explanation of why the applicant has rejected any measures or facilities recommended by an agency.

While proposed environmental measures are mentioned in section 3.2.2, *Proposed Environmental Measures*, of Exhibit E, there is no discussion of the existing environmental measures and whether they are proposed to continue during any new license (e.g., Biological Monitoring Plan). Additionally, the FLA does not include a discussion of agency recommended measures or facilities, if any. Please describe the existing environmental measures and whether they will be continued or maintained, and describe the agency recommended measures or facilities including whether these measures were adopted, and, if not, why they were not adopted. If any of the existing measures are proposed to continue, provide a cost estimate for the proposal.

### Exhibit G

2. Section 4.41(h)(1) of the Commission's regulations requires that the map must show the relative locations and physical interrelationships of the principal project works and other features described under paragraph (b) of this section (Exhibit A). The Exhibit G filed with the application does not include the intake facility and the transmission line. So that we have a full understanding of the location of all project features, please revise the Exhibit G sheet 1, inset to include intake facilities on the upstream side of the powerhouse, the transmission line to the point of interconnection, and delete the shaded area on the upstream side of the dam, adjacent to the powerhouse. Also, the project boundary must be revised to enclose the transmission line.

3. Section 4.41(h)(2) of the Commission's regulations requires that the Exhibit G must show a project boundary. The boundary must enclose only those lands necessary for operation and maintenance of the project and for other project purposes, such as recreation, shoreline control, or protection of environmental resources. The application proposes to remove approximately 310 acres from the current boundary. The Exhibit G map does not show the current and proposed project boundaries. So that we have a full understanding of the recreation, shoreline control, and protection of environmental

resources, please revise the Exhibit G maps to show the current and proposed project boundaries.

## REQUEST FOR ADDITIONAL INFORMATION

The following is a list of additional information needs that have been identified after review of the final license application (FLA) for the Lake Lynn Hydroelectric Project (project). Please provide the requested information within 90 days of the date of this this request, unless specified otherwise below.

### General Comments

1. Section 4.51(f)(3)(ii) of the Commission's regulations requires a statement of any existing measures or facilities to be continued or maintained and any measures or facilities proposed by the applicant for the mitigation of impacts on fish, wildlife, and botanical resources, or for the protection or improvement of such resources, including an explanation of why the applicant has rejected any measures or facilities recommended by an agency. Section 3.2.2, *Proposed Environmental Measures*, of the FLA states that Lake Lynn Generation, LLC (Lake Lynn) proposes to develop an Operation Plan, Water Quality Monitoring Plan, Recreation Management Plan, Historic Properties Management Plan (HPMP), and Shoreline Management Plan (SMP) for the project. However, the FLA does not contain copies of these plans, nor does the FLA contain detailed elements of these plans. To ensure that all of the proposed protection, mitigation, and enhancement (PM&E) measures are available for review by Commission staff and stakeholders, and that staff has sufficient information to inform an environmental analysis for each of the plans, please submit draft plans or details of the elements of the plans.
2. Section 3.2.1, *Proposed Project Facilities and Operations*, of Exhibit E describes that Lake Lynn proposes to remove 310.89 acres of land that is not needed for project purposes, including but not limited to a portion of Cheat Lake Park, Sunset Beach Marina, and the 12-acre water-accessible wildlife and nature viewing area (NVA), which are existing project recreation sites required by the current project license.<sup>1</sup> West Virginia Department of Natural Resources (West Virginia DNR) expressed opposition to the removal of the 12-acre NVA in comments on the DLA.<sup>2</sup> In the DLA, Lake Lynn proposed to remove only the water-accessible NVA from the project boundary. There could also potentially be substantial changes to the aesthetic character by removing the areas of land, as they are mainly situated along the shoreline. While reasoning was proposed for the removal of 49.11 acres of land as a result of contour adjustments and

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<sup>1</sup> In the December 27, 1994, Final Environmental Assessment for the project at 69, staff noted that "...the proposed trail system and wildlife habitat and nature viewing areas constitute a reasonable coordinated plan that would help to preserve wildlife habitat and provide for the enjoyment of the public."

<sup>2</sup> Letter dated November 1, 2022.

private leases, the reasoning for the removal of the remaining 261.78 acres of land, including recreational features and lands that provide a variety of habitats for plant and wildlife species (potentially including Threatened and Endangered Species), was not provided in the FLA. If the lands proposed for removal no longer serve a project purpose, please indicate what their previous project purpose was and why they are no longer necessary to fulfill that purpose. Also, please describe any existing structures and the effects of the land removal on project resources.

### **Exhibit A**

3. Section 2.1.6, *Appurtenant Facilities*, of Exhibit A indicates that the maximum hydraulic capacity of the project is 9,700 cubic feet per second (cfs) and the minimum hydraulic capacity is 500 cfs. Section 2.4, *Estimated Hydraulic Capacity*, of Exhibit B indicates that the maximum hydraulic capacity of the project is 10,768 and a minimum hydraulic capacity is 400 cfs. Relatedly, Table 3-1 of the 2020 Desktop Entrainment Study, indicates that the maximum hydraulic capacity of the project is 10,143 cfs with units 1, 3, and 4 having a maximum hydraulic capacity of 2,425 cfs, and unit 2 having a maximum hydraulic capacity of 2,868 cfs, while Table 3-1 of the revised 2022 Desktop Entrainment Study indicates that the maximum hydraulic capacity of the project is 10,768 cfs with units 1, 3, and 4 having a maximum hydraulic capacity of 2,700 cfs, and unit 2 having a maximum hydraulic capacity of 2,668 cfs.

So that we may clearly understand the maximum and minimum hydraulic capacity of each generating unit as well as the maximum and minimum hydraulic capacity of the project, please clarify: (1) the maximum and minimum hydraulic capacity of each generating unit (and revise the values in Exhibit A, Exhibit B, and the Desktop Entrainment Study, as needed); (2) the maximum and minimum hydraulic capacity of the project; and (3) whether updates to the Desktop Entrainment Study are needed. Please ensure your response is consistent with the minimum hydraulic capacity of unit 1 (1,100 cfs) described in section 3.1.3, *Description of Warning Devices Used to Ensure Downstream Public Safety*, or revise section 3.1.3, if needed. Also, because refurbishing unit two has increased its generating capacity to 16 mega-watts (MW), but the overall capacity remains at 51.2 MW, please provide the generating capacities of units 1, 3, and 4.

### **Exhibit B**

4. Section 1.3.1, *Normal Project Operation*, of Exhibit B indicates that Lake Lynn operates the Lake Lynn Project as a dispatchable peaking hydroelectric facility using the impoundment's storage capacity, which varies seasonally. However, the FLA provides limited details regarding peaking operations at the project. To facilitate Commission staff's review of project operation, please provide a more detailed description of peaking operations, including: (a) the general frequency, timing, and magnitude of peaking operation (*i.e.*, peak hours, number of cycles per day, typical extent of drawdowns, rate of

flow changes, *etc.*), and whether operations vary seasonally; (b) the sequence of operation of the turbine-generator units; and (c) whether the project operates to the full extent of the existing seasonal impoundment fluctuation limits.

5. Appendix B-2 of Exhibit B includes daily lake level elevations as recorded at USGS Gage 3071590, located within the project reservoir, as well as daily generation data at the Lake Lynn Powerhouse from 2012 to 2021. However, it is unclear what the columns in the generation data represent and how the values within each column are calculated. So that we may interpret and analyze the generation data, please provide a description of each column heading. As part of this description, please also detail how each value is collected and/or calculated.

6. Section 1.3.1, *Normal Project Operation*, of Exhibit B states that when flows are greater than approximately 300 cfs, downstream minimum flow is passed through the powerhouse. Please describe how the minimum flow is passed through the powerhouse (when 300 cfs appears to be less than the minimum hydraulic capacity of any of the four generating units). Please also describe how Lake Lynn measures minimum flow to ensure the minimum flow requirements are met.

## **Exhibit E**

### *General Comments*

7. Section 2.5, Coastal Zone Management Act (CZMA), of Exhibit E states that the Lake Lynn Project is not located within a coastal zone. Because Pennsylvania has a coastal zone management program, please provide the certification of consistency from the Pennsylvania CZMA agency, or a statement from the CZMA agency that the project is not subject to CZMA review.

8. The discussion of the anticipated impacts of the proposed relicensing on aquatic and terrestrial resources in Section 4.0, *Environmental Analysis*, of Exhibit E is lacking detail. For example, in many instances Section 4.0 states that because no changes to project operations are proposed, continued operation of the project is not expected to have an adverse effect on environmental resources. However, studies included in the FLA indicate that fluctuations to the reservoir surface elevation, as a result of current project operations, may strand yellow perch egg skeins. As a result, West Virginia DNR, in comments on the on DLA, indicates that a deviation from the No-Action Alternative may better protect the Cheat Lake fishery.

Please revise Section 4.0 to provide a more detailed evaluation of the effects of project operations on aquatic and terrestrial resources. Please be sure to discuss the effects of water level fluctuations (including the duration, magnitude, and seasonality of fluctuations), water quality, and the removal of lands and their federal protections from the project boundary on aquatic biota, wetlands, riparian and littoral habitats, Threatened and Endangered species, invasive species, and shoreline erosion in the project area.

*Water Resources*

9. Section 4.4, *Water Resources*, of Exhibit E indicates that Lake Lynn has developed standard operating procedures, including opening the spill gates to increase flow in the tailrace and reducing generation, to mitigate low dissolved oxygen (DO) concentrations in the project tailrace during periods of low inflow. Lake Lynn indicates that these procedures have been shown to increase DO concentrations in the tailrace and proposes to include them in the proposed Operation Plan. So that we may evaluate the proposed standard operating procedures and understand how DO concentrations respond to operational changes, please: (1) detail the standard operating procedures, including the water quality conditions that trigger their implementation; (2) describe how such measures are expected to increase dissolved oxygen concentrations; and (3) provide (in Microsoft Excel or a similar format) any available generation and water quality data collected before, during, and after the standard operating procedures have been initiated that illustrate how DO responds to implementation of the standard operating procedures.

10. In comments on the DLA, West Virginia DNR states that the Lake Lynn Project has a history of exhibiting low DO concentrations in the project tailrace, typically from August through October. So that we may better evaluate potential project effects on water quality, please describe the conditions that lead to low DO concentrations in the tailrace. As part of your response, please describe the depth of the project intake and whether low-level releases, as a result of project operations, contribute to reduced DO concentrations downstream.

11. Section 4.4.1.1.2, *Water Quality Data*, of Exhibit E includes a summary of water quality data collected in the project reservoir, tailrace, and downstream of the dam. Because temperature and DO have both been shown to stratify within Cheat Lake (*i.e.*, Chapter 7, *Biological Monitoring of Aquatic Communities of Cheat Lake, and Cheat River downstream of the Lake Lynn Hydro Station, 2008*), depth of sample collection may influence the results of water quality monitoring. Please provide the water depth at the sampling location and the depth of the water quality samples collected for the data provided in section 4.4.1.1.2.

Additionally, so that we can better evaluate the proposed Water Quality Monitoring Plan, please describe: (1) the frequency of sample collection; (2) the estimated water depth at the sampling locations and depth of the proposed water quality monitor sites in both the impoundment and tailrace; and (3) any proposed reporting of the water quality monitoring results, including deviations from state standards. Last, please discuss why Lake Lynn proposes to discontinue monitoring pH and conductivity.

12. Acid mine discharge has been shown reduce water quality throughout the Cheat River watershed. Article 404 of the current license requires a 212 cfs minimum flow release, with an absolute minimum flow of 100 cfs regardless of inflow, to mitigate poor water quality downstream from the project caused by acidic tributaries. So that we may



better evaluate the relationship between acid mine drainage and Lake Lynn project operations, please describe the effects of acid mine drainage on project operations and aquatic resources within the Cheat River watershed.

#### *Invasive Species*

13. Section 4.7.1.2, *Wetlands, Riparian, and Littoral Habitat*, of Exhibit E indicates that Lake Lynn documented twenty-two separate areas of aquatic vegetation throughout the impoundment. The most common species found include brittle naiad (*Najas minor*), wild celery (*Vallisneria americana*), and curly-leaf pondweed (*Potamogeton crispus*). These aquatic plants are all non-native, invasive species. Additionally, section 4.7.1.1.1, *Invasive Plants and Noxious Weeds*, indicates that the invasive Japanese knotweed (*Fallopia japonica*), garlic mustard (*Alliaria petiolata*), the Tree of Heaven (*Ailanthus altissima*), and Oriental bittersweet (*Celastrus orbiculatus*) are all common within the Lake Lynn Project area.

So that we may better understand the distribution of aquatic and terrestrial invasive species within the project boundary, please provide a description and map, if possible, depicting the location of aquatic and terrestrial invasive species within the project area. Please also describe the presence of aquatic and terrestrial invasive species at the recreation sites, public access sites (including the boat launch and marina), and maintained areas throughout the project boundary. Last, please file a copy of the referenced Smith and Welsh, 2015, which identified areas of aquatic vegetation in Cheat Lake.

#### *Terrestrial Resources*

14. Section 2.1.5, *Transmission Facilities*, of Exhibit A includes a brief, general description of the project substation, transformers, and transmission lines. Section 4.6, *Wildlife Resources*, of Exhibit E does not include information regarding the effects of operating and maintaining the transmission facilities on terrestrial resources, including birds and other wildlife. To facilitate Commission staff's review of the design, configuration, and maintenance of the project transmission facilities please provide detailed descriptions, figures, and diagrams of the project transmission facilities. Please also describe the transmission line corridor (length and width), vegetation present within the corridor, and describe any vegetation management that occurs within the corridor.

#### *Threatened and Endangered Species*

15. Section 4.8.2.1.1, *Bats*, of Exhibit E indicates that Lake Lynn would abide by seasonal tree clearing restrictions for the protection of bat species and only clear trees between November 1 and April 14. So that we may better understand Lake Lynn's bat protection measures, please clarify whether seasonal tree trimming restrictions are a proposed PM&E measure and, if so, provide a cost estimate for the proposal. Please also provide a discussion of the reasoning for limiting tree removal to the period between

November 1 and April 14.

*Recreation Resources*

16. Section 4.9.1.3, *Land Use and Management of Project Lands*, describes that Lake Lynn historically granted leases and permits for private recreation access to project lands and waters, but that any new permits for private piers or boat docks will not be issued until after relicensing due to the results of the 2017 boating carrying capacity study. So that we may better understand this issue, please describe Lake Lynn's alternatives to the moratorium and proposals related to the moratorium.

*Cultural Resources*

17. Please provide a record of consultation with the West Virginia State Historic Preservation Office and Pennsylvania State Historic Preservation Office, including concurrence on the Area of Potential Effects (APE) and the effects of the potential removal of lands from the project boundary on known historic properties.

18. Section 4.11.1.2, *Prior Cultural Resource Investigations*, of Exhibit E mentions that the Pennsylvania SHPO identified a potential National Register-eligible above ground resource that may require surveying prior to developing final plans. However, no survey work is being proposed within the FLA. Please provide a description of this resource (please file as Privileged if appropriate), and any survey work proposed for it.

19. Section 4.11.1.2, *Prior Cultural Resource Investigations*, of Exhibit E states that there are two known potentially significant cultural resources within the Lake Lynn Project boundary: the former Baltimore & Ohio railroad right-of-way and the Lake Lynn Powerhouse and dam which are both potentially eligible for listing on the National Register. However, in letters included in the FLA to the West Virginia SHPO and the Pennsylvania SHPO, several cultural resources are documented within the APE.<sup>3</sup> For us to understand the potential impacts to these known cultural resources, please discuss how the proposed removal of the lands from the project boundary, and thus from federal protection, could affect these resources and describe any mitigation measures for such potential effects, if applicable. Also, please include any correspondence related to potential effects to known resources, including mitigation measures, from the West Virginia SHPO and Pennsylvania SHPO.

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<sup>3</sup> Letter from TRC dated October 26, 2020.

### Exhibit G

20. The Exhibit G maps show several inholding areas within the project boundary. Please: (1) describe each of these areas; (2) identify ownership; and (3) describe the reason(s) that they are not included within the proposed project boundary.

21. The Exhibit G maps show an area just north of the project dam that is within the proposed project boundary but is not included within the existing project boundary (see Figure 1, below). Please describe the project related purpose of this area, describe any structures situated within this area, and identify the existing ownership of any lands proposed to be added to the project boundary.



Figure 1. Land (as indicated by an arrow) located within the proposed project boundary that is not within the existing project boundary.