

FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, D.C. 20426

January 3, 2018

OFFICE OF ENERGY PROJECTS

Project No. 14227- 003- California
Lake Elsinore Advance Storage Project
The Nevada Hydro Company, Inc.

Rexford Wait
The Nevada Hydro Company, Inc.
2416 Cades Way
Vista, CA 92083

Reference: Deficiency of License Application and Request for Additional Information

Dear Mr. Wait:

Your license application, filed on October 2, 2017, fails to conform to the requirements of the Commission's regulations. A list of deficiencies is enclosed as Schedule A. Under section 4.32(e)(1) of the Commission's regulations, you have 90 days from the date of this letter to correct the deficiencies in your application.

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

As you know, several interested parties have filed requests for additional studies. We will be issuing our determination on these study requests and the need for additional studies by separate letter, after we complete our review of the final license application.

If the correction of any deficiency or requested information causes any other part of your 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 you at any time before final action on your application.

Within 5 days of receipt, you should provide a copy of this letter to all agencies you will consult in response to this request. When you file the requested information with the Commission, you must provide a complete copy of the information to each agency consulted under Section 4.38 of the 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.asp>. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426. Please put the docket number, Project No. 14227-003, on the first page of your response.

If you have any questions, please contact Jim Fargo at (202) 502-6095.

Sincerely,

A handwritten signature in black ink, appearing to read 'Timothy Konnert', written in a cursive style.

Timothy Konnert, Chief
West Branch
Division of Hydropower Licensing

Enclosures: Schedules A and B

SCHEDULE A

Deficiencies

Exhibit F Drawings

Section 4.41(g) of the Commission's regulation requires an application to include an Exhibit F with design drawings of principal project works conforming to the specifications in Section 4.39. The application lacks any drawings of principal project works other than those of the proposed transmission lines. Therefore, you must resubmit an Exhibit F that includes drawings of all principal project works defined in Exhibit A of your license application.

Supporting Design Report

Section 4.41(g) of the Commission's regulations requires an application to include an Exhibit F that contains a supporting design report that demonstrates that existing and proposed structures are safe and adequate to fulfill their stated functions. The information provided in the application is inadequate for our review of the safety of the project's dam and water retaining structures. Therefore, you must include additional information in the supporting design report. The supporting design report should include the proposed design, an assessment of the site, a geotechnical evaluation, and a stability analysis for all probable loading conditions of all water retaining structures, including seismic loading. The stability analyses must be performed by a qualified professional engineer and be prepared in accordance with the Commission's Engineering Guidelines, which can be found at <http://fercnet/newfercnet/oep/dam-safety/resources/guidelines/eng-guidelines.asp>.

SCHEDULE B
Additional Information Requests

Exhibit A

1. Section 1.1 (Page A-2) states that the upper reservoir would be connected to the powerhouse via a single 25-foot-diameter penstock. This section then goes on to say the “pipeline alignments will seek to follow the most direct route...” and “A manifold will interconnect both penstocks...” Section 1.3 indicates a single 21-foot-diameter penstock will be used to connect the upper reservoir to the powerhouse. Similarly, Table A-1 indicates that a single 21-foot-diameter intake shaft and a single power tunnel of the same diameter would be constructed. Please clarify the number and diameter of the penstocks and reconcile these apparent inconsistencies.

2. Section 6.0 states that the project boundary encompasses 845 acres of lands of the United State and approximates the total number of acres per township, range, and section number. Please identify the land management agency(s) with jurisdiction over these lands and the total number of acres within the project boundary under their jurisdiction.

3. In Exhibit B, your operational spreadsheets attachment is labelled as being for Morrell Canyon Reservoir instead of the proposed Decker Canyon and does not show how Lake Elsinore’s volume and elevation varies during refill and drawdown. We need this information for our environmental and economic analysis of the project effects. Please resubmit your operational spreadsheets attachment for Decker Canyon Reservoir showing how refill and drawdown affects Lake Elsinore’s volume and elevation. Please provide this information in electronic format (Excel), and include all formulas.

Water Quality and Aquatics

4. Section 2.6.1 *Potential Impacts of LEAPS Generation Facilities* indicates that about 5,500 acre-feet of water would be needed to fill the upper reservoir. However, Exhibit A, Table A-3: *Upper Reservoir Characteristics* indicates that 5,750 acre-feet would be the total gross storage capacity of the upper reservoir; and therefore, likely needed to fill the upper reservoir. Please clarify and reconcile this apparent discrepancy.

5. Section 3.1.1.2.1 *Construction Impacts* discusses potential fish mortality caused by entrainment and/or impingement and states that these effects would be mitigated to “less-than-significant” with the implementation of proposed PM&E measure BR-5b. However, PM&E measure BR-5b does not appear in Table E.3-2: *FERC Environmental Measures – Fisheries and Aquatic Resources Impacts Relating to the LEAPS Pumped*

Storage Project, which includes a list of PM&E measures previously recommended by FERC staff and now proposed by Nevada Power. BR-5b does, however, appear in section 3.3.4.2.2 *Project Operational Impact to Botanical and Vegetation Resources*, Table E.3-12: *Biological Resource PMEs* and is identified as “Conduct biological monitoring” and includes measures to protect terrestrial vegetation and botanical resources. As a result, it is unclear how PM&E measure BR-5b would mitigate for fish mortality at the project. Please clarify.

6. In Exhibit E’s Hydrology and Water Quality section, you conclude that identifying a reliable source of water to maintain stable operating conditions for Lake Elsinore during periods of drought is critical for the success of the project. Simulation results in the section show several years where the use of both Elsinore Valley Municipal Water District’s (EVMWD) reclaimed water and Island Wells groundwater do not keep the reservoir at or above 1,240 feet, which would require you to obtain additional water to operate the project during those periods.

In your final license application (FLA), you say to maintain stable operating conditions, Nevada Hydro will execute a long-term agreement with EVMWD and/or other unidentified water providers, which will also include the initial water to fill the upper reservoir and water needed during construction. However, your application does not include either a draft or final version of a contract with EVMWD or other water provider.

Therefore, for us to identify the sources and yearly amounts of water you plan to use to maintain Lake Elsinore above 1,240 feet, please provide the following:

- The specific source(s) of water you plan to use to maintain the operational level of Lake Elsinore above 1,240 feet.
- Consult with the sources of water you identify above to provide an assessment of the availability of the water and how that availability varies during average, dry and extremely dry water years.
- An agreement in principle with the water users you identify that describes the respective roles of each party and includes each parties concerns relative to entering into a long term water supply contract with Nevada Hydro.
- Any measures you propose to mitigate Decker Canyon reservoir’s projected evaporation loss of 350 acre-feet-per-year.

7. Under a Commission license, Nevada Hydro, as licensee would be responsible for operating and maintaining all project facilities including Lake Elsinore. Currently, EVMWD and the City of Elsinore share cost to try and maintain the lake at an elevation

at or above 1,240 feet as part of the Lake Elsinore Stabilization and Enhancement Project. Though, Nevada Hydro could contract with EVMWD and the City of Elsinore to continue their current lake management, Nevada Hydro would still be the responsible party and would need to retain enough control over the operation of Lake Elsinore to ensure that it can meet any Commission license requirement without EVMWD's or the City of Elsinore's prior approval. Your FLA does not include a draft of final reservoir operation plan that specifies how Nevada Hydro would operate Lake Elsinore under a Commission license.

Therefore, please coordinate with the City of Elsinore and EVMWD to develop a reservoir operation plan. If Nevada Hydro plans to contract with the City of Elsinore and EVMWD to provide management, you must include an agreement in principle that identifies the respective roles of each party and each parties concerns relative to entering into a long term operation and maintenance contract with Nevada Hydro.

8. Section 3.1.1.1. *Existing Resources* states that rainbow trout stocking is not included in the Fisheries Management Plan for Lake Elsinore. However, no reference or citation for the Fisheries Management Plan for Lake Elsinore is provided. So that Commission staff may evaluate proposed and recommended measures in context with the Fisheries Management Plan for Lake Elsinore please file the current version of the plan with your response to this Additional Information Request.

9. Section 3.1.1.1. *Existing Resources*, Table E.3-1: *Fish Species Reported to Occur in Lake Elsinore* provides information on fish species reported or documented in 1984, 1993, and 2000 through 2003. In the species specific text of this section some of the information provided is dated as late at 2005. However, it unclear if the information provided is the most relevant, up-to-date information available for Commission staff to conduct its environmental analysis. If the information provided is the best available please confirm and provide copies of your consultation verifying the confirmation. Otherwise, please revise section 3.1.1.1 to augment the information provided with most relevant, up-to-date information on fish species reported or documented to occur in Lake Elsinore.

10. Section 3.1.1.2.1. *Construction Impacts* discusses potential fish mortality caused by entrainment and/or impingement and states that these effects would be mitigated to "less-than-significant" with the implementation of proposed PM&E measure BR-5b. However, PM&E measure BR-5b does not appear in Table E.3-2: *FERC Environmental Measures – Fisheries and Aquatic Resources Impacts Relating to the LEAPS Pumped Storage Project* which includes a list of PM&E measures previously recommended by FERC staff and now proposed by Nevada Power. BR-5b does, however, appear in section 3.3.4.2.2 *Project Operational Impact to Botanical and Vegetation Resources*, Table E.3-12: *Biological Resource PME*s and is identified as "Conduct biological monitoring" and includes measures to protect terrestrial vegetation and botanical

resources. As a result, it is unclear how PM&E measure BR-5b would mitigate for fish mortality at the project. Please clarify.

Terrestrial Resources

11. The project would be located within or in close proximity to designated or proposed critical habitats (Munz's onion, Riverside fairy shrimp, arroyo toad, thread-leaved brodiaea, coastal California gnatcatcher, and Stephen's kangaroo rat). Although Exhibit E, Section 3, *Fish, Wildlife, and Botanical Resources* (figures E.3-1 to E.3-5) shows the location of critical habitat in relation to the project area outline, it does not adequately show the relationship between critical habitat and specific project components. Therefore, provide revised maps that clearly show the location of project components (roads, transmission lines, other facilities, disposal and laydown areas, etc.) in relation to proposed or designated critical habitats for the above-listed species. You should also include a table showing the amount of different vegetation types within the critical habitats that would be disturbed and whether effects would be temporary or permanent.

You describe the primary constituent elements (PCE) developed for each species but do not provide any analysis of how construction, operation, and maintenance of the project could affect the PCEs. The discussion of critical habitats should be revised to include such an analysis.

12. Table E.3-6, *LEAPS—Impacts to Vegetation Communities*, should be revised to quantify how much of the impacts would be permanent as opposed to temporary.

13. Table E.3-11, *Primary Transmission Line Impacts to Vegetation Communities*, should be revised to include the Santa Rosa substation and Fallbrook and Fern Creek Ranch substation alternatives. The table should also include, as appropriate, underground segment trenching and permanent maintenance roads, helicopter fly yards, pulling and tensioning stations outside the right-of-way, and staging areas.

14. Exhibit E, Section 3, *Fish, Wildlife, and Botanical Resources*, does not address the Fallbrook and Fern Creek Ranch substation alternatives. In order to understand potential impacts of these facilities, provide a description of the existing environment at these sites along with a discussion of potential impacts to wildlife and botanical resources, including sensitive species.

15. Attachment 3 to the Applicant-prepared Environmental Impact Report, *Tower Sites Environmental and Engineering Assessments*, provides summary information on each tower location and associated roads and work areas. The numbering (particularly tower nos. 1A-14B), however, does not match the Exhibit G maps nor does it include all 138 towers. Please update the table accordingly.

16. In order for staff to better understand the potential impacts of each construction activity, provide a table showing the vegetation types that would be temporarily or permanently affected by each tower location and associated roads, pull sites, and staging areas.

17. You do not describe whether herbicides would be used to control invasive plant species or manage vegetation around project facilities. The use of herbicides can potentially affect sensitive plant and animal species. Therefore, provide details on the use of herbicides, including best management practices that would be used to minimize effects.

18. You indicate in Exhibit E, Section 3, *Fish, Wildlife, and Botanical Resources*, that mitigation for many habitat losses (native trees, habitat for listed wildlife species, sensitive natural communities, including riparian habitat, etc.) might not be able to be fully mitigated because replacement habitat may not be available in the project area. In order for staff to be able to analyze the potential for unavoidable impacts to important resources, provide an assessment of the availability of replacement habitats to potentially offset habitat impacts associated with the proposed project.

19. In Exhibit E, Section 11, *Literature Cited*, many of the references do not include the complete citation but only author and year. Please provide the complete citations for those references.

20. Provide a copy of Dudek (2002) that describes the vegetation and wildlife along the proposed 69-kilovolt rebuilt line from the Pala and Lilac substations.

Recreation, Land Use, and Aesthetics

21. In Exhibit E you provide several maps from a variety of sources. Few, if any, of the maps depict proposed project facilities. In order to review your application, it is necessary to understand how proposed project features relate to other relevant features of the landscape. Please modify all included maps, regardless of the original source, to include detailed, spatially accurate depictions of proposed project features.

The base layer for the maps in Exhibit G consists of aerial photo images from 2009. New residential or commercial development may have occurred in the area since 2009, therefore you should update the base layer for the maps in Exhibit G with current aerial photo images.

22. Construction of the proposed upper reservoir would permanently remove approximately 100 acres of land from public use. Furthermore, Exhibit G indicates the upper reservoir would require the removal or relocation of forest roads. However,

Exhibit E contains no information about these roads or any other existing roads, trails, or recreation use that would be impacted by the permanent removal of the upper reservoir site from public use. So that we can evaluate your application, please provide information on the current recreation use that occurs in that area, including formal or informal use. Provide information on the number and type of all roads, trails, and recreation sites (both formal and informal), and observational data about the amount and type of current recreation use of the area. Provide an estimate of the amount of recreation use this area receives, so that we may understand the impacts of the proposed project. If this information is not readily available, then submit your proposed plan to obtain it for Commission approval.

23. In its November 30, 2017, comment letter, the Cleveland National Forest (Forest Service) says that your proposed location for the Decker Canyon upper reservoir (and the previously proposed Morrell Canyon site) are within an Inventoried Roadless Area (IRA) that is subject to the Roadless Area Conservation Rule (RACR). The Forest Service says the RACR, which went into effect in 2012, generally prohibits any road construction in an IRA. Because of this, the Forest Service is requiring Nevada Hydro to develop alternatives that are consistent with the RACR before the Forest Service can accept an application for a special use permit.

Therefore, within 90 days, consult with the Forest Service to develop alternatives to your proposal consistent with the RACR that would allow the Forest Service to accept your special use permit application, and provide the Commission with a record of this consultation. If this consultation would modify your proposal, and result in any part of your license application to be inaccurate, then make all relevant changes and submit an updated application along with the record of your consultation.

24. In its November 30, 2017, comment letter, the Forest Service says that it will decide whether to become a cooperating agency under NEPA after you file an application for a Special Use Permit for the project. Your license application includes a Special Use Permit application for the previous proposal but not the current one. Please file a copy of a Special Use Application filed with the Forest Service for the current proposal or documentation from the Forest Service showing that they will use the previous application in the current proceeding.

Engineering and Economic

25. For us to better understand how you have estimated the cost of your proposed LEAPS project, which you summarize in Figure D.1, please provide us with more detail on your estimate that includes quantities, unit costs, and total costs for major project features (such as reservoir excavation, foundation preparation, dam construction, tunneling excavation, powerhouse construction, underground segment of the 500-kV transmission line).

With regard to the specifics of the underground works, the previous penstock design includes building upstream power tunnels at a slope of 25 degrees, which is equal to a gradient of 50 percent. If your current design includes tunnels of this steepness, please include with your detailed cost estimate details of how either drill and blast excavation or a tunnel boring machine could be used at this steep of gradient.

Historical and Archaeological Resources

26. In Exhibit, E, section 4, you say that field surveys by your cultural resources contractor were conducted in 1996 and 1997, and it appears that you have not since reconsidered the conditions and circumstances involving the existing, or any newly recorded cultural resources within the proposed project's area of potential effects. We also note that since the filing of your historic properties management plan for your original LEAPS proposal in 2005, and upon our recommendations in our 2007 final environmental impact statement, you have not revised the historic properties management plan.

Several FLA comments express concern about the effects of the LEAPS Project on cultural resources, including the Pechanga Band of Luiseño Indians Tribes who say that they and others have gathered additional information pertinent to the protection of tribal cultural resources and an important Traditional Cultural Property.

Given the lack of existing consultation on your current proposal, you will need to consult with the Indian tribes and other consulting parties that were included in our programmatic agreement issued on February 12, 2007. Please provide your correspondences and related comments from the involved parties.