

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Kevin J. McIntyre, Chairman;
Cheryl A. LaFleur, Neil Chatterjee,
Robert F. Powelson, and Richard Glick.

GreenGenStorage LLC

Project No. 14796-000

ORDER ISSUING PRELIMINARY PERMIT AND
GRANTING PRIORITY TO FILE LICENSE APPLICATION

(Issued December 21, 2017)

1. On July 19, 2016, GreenGenStorage LLC (GreenGen) filed an application for a preliminary permit, pursuant to section 4(f) of the Federal Power Act (FPA),¹ to study the feasibility of developing the Mokelumne Pumped Storage Project No. 14796 (Mokelumne Pumped Storage Project), to be located in Amador and Calaveras Counties, California. The project would utilize waters within the North Fork Mokelumne River watershed, which includes the Bear River, Cole Creek, and reservoirs within Pacific Gas and Electric Company's (PG&E) existing Mokelumne River Project No. 137 (Mokelumne River Project),² including the Salt Springs, Lower Bear River, and Upper Bear River Reservoirs. The project would be located on private land and on federal land managed by the U.S. Department of Agriculture's United States Forest Service (Forest Service).

I. Background & Proposal

2. The proposed Mokelumne Pumped Storage Project would consist of the following: (1) the existing Salt Springs Reservoir as the lower reservoir; (2) either the existing Upper Bear or Lower Bear River Reservoir as the upper reservoir; (3) a 16,000 to 20,000-foot-long power tunnel connecting the upper reservoir, pump turbines, and the lower reservoir; (4) an underground powerhouse containing a pump turbine and motor generators with a total installed capacity between 380 and 1,140 megawatts (MW); (5) an approximately 3,000-foot-long transmission line and proposed interconnection to an existing transmission line at PG&E's Salt Springs Powerhouse; and (6) appurtenant

¹ 16 U.S.C. § 797(f) (2012).

² *Pacific Gas & Elec. Co.*, 97 FERC ¶ 61,031 (2001).

facilities. The proposed project would have an average annual generation between 523 and 742 gigawatt-hours.

3. The Commission issued public notice of GreenGen's permit application on October 4, 2016.³ PG&E, Amador Water Agency (Amador), and East Bay Municipal Utility District (East Bay MUD) filed timely, unopposed motions to intervene.⁴ In its motion, PG&E protested the permit application. The Foothill Conservancy, California Sportfishing Protection Alliance, Friends of the River, and American Whitewater (together, Mokelumne Stakeholders) filed a joint motion to intervene and protest. The U.S. Department of Interior (Interior), Forest Service, and California Department of Fish and Wildlife filed timely notices of intervention.⁵ On November 30, 2016, GreenGen filed a motion for leave to answer and answer of PG&E's protest, and on December 14, 2016, GreenGen filed an answer to the Mokelumne Stakeholders' protest and the comments filed by Amador and East Bay MUD. The protests and all comments are addressed below.

II. Discussion

4. PG&E and the Mokelumne Stakeholders oppose the issuance of a preliminary permit for the proposed project, arguing that it will interfere with PG&E's existing Mokelumne River Project No. 137. The Forest Service raised concerns about the use of Forest Service lands near the proposed sites for the project's upper reservoir and underground powerhouse. Interior filed separate comments on the application regarding fish and wildlife resource issues, and Amador and East Bay MUD raised concerns regarding project construction and operation.

A. Section 6 of the FPA

5. PG&E and the Mokelumne Stakeholders argue that the Commission cannot accept a preliminary permit application for project works that would interfere with a licensed project in a manner that, absent the licensee's consent, would be precluded by section 6

³ 81 Fed. Reg. 70,105 (October 11, 2016).

⁴ Timely, unopposed motion to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214(c) (2017).

⁵ A timely notice of intervention is granted by operation of Rule 214(a)(2). 18 C.F.R. § 385.214(a)(2) (2017).

of the FPA.⁶ PG&E states that the proposed project would inevitably interfere with the Mokelumne River Project, and that it will not consent to physical alterations to the licensed features of its facility's features, including GreenGen's proposal to study raising the Lower Bear River dam and its proposed interconnection with PG&E's transmission line. PG&E also argues that the proposed project could complicate the operation of PG&E's facilities and interfere with PG&E's compliance with the Mokelumne River Project license.⁷

6. Section 6 of the FPA protects licensees by ensuring that licenses "may be altered ... only upon mutual agreement between the licensee and the Commission."⁸ Section 6 bars substantial unilateral alterations of a licensed project, but may allow "such encroachments on a license, comparable in their adverse impact to variations in conditions that investors might expect from other causes such as, for example, annual fluctuations in water supply."⁹ Accordingly, it is Commission policy to deny permit applications only where it is clear that the proposed development would cause impermissible alterations to a licensed project without the licensee's consent.¹⁰ However, where it is not clear that a conflict with a licensee's section 6 protections exists, the Commission will issue a preliminary permit.¹¹

7. As evidenced by the parties' competing protests and answers, there is substantial disagreement about whether GreenGen's proposed project would cause unacceptable operational impacts at PG&E's Mokelumne River Project. Here, GreenGen states that its

⁶ See, e.g., Mokelumne Stakeholders' December 1, 2016 Motion to Intervene and Protest at 5 (citing *JDJ Energy Co.*, 41 FERC ¶ 61,354 (1987)) (Mokelumne Stakeholders Protest).

⁷ PG&E's November 15, 2016 Motion to Intervene and Protest at 6-7 (PG&E Protest).

⁸ 16 U.S.C. § 799 (2012).

⁹ *Pacific Gas and Electric Co. v. FERC*, 720 F.2d 78, 90 (D.C. Cir. 1983).

¹⁰ See *Twin Lakes Canal Co.*, 141 FERC ¶ 62,224, at P 11 (2012) (citing *Pacific Gas and Electric Co. v. FERC*, 720 F.2d 78, 90 (D.C. Cir. 1983))

¹¹ See, e.g., *id.*; *McGinnis, Inc.*, 131 FERC ¶ 62,003 (2009); *City of Oswego, New York*, 61 FERC ¶ 61,056 (1992) (issuing permit over existing licensee's objections that proposed project would cause operational impacts on licensed project, including raised water levels in tailrace, reduced head, and reduced generation, because such impacts were speculative at the preliminary permit stage).

plans are not dependent on the alteration of PG&E's licensed facilities, and one purpose of the preliminary permit is to afford an opportunity to study possible operational impacts and to design the project in such a manner as to avoid or mitigate those impacts. Furthermore, GreenGen's proposal is substantially similar to PG&E's proposal from a prior preliminary permit application.¹² Despite these similarities, PG&E claims that GreenGen's proposal would negatively impact PG&E's operations on the Mokelumne River Project and compliance with its license. Specifically, PG&E points to GreenGen's application, which states that the pumped storage project's reservoirs would have the capacity to release flows for 8-10 hours per day. PG&E claims that 8-10 hours of outflows per day would cause compliance problems with respect to reservoir elevation levels, ramping rates, and dissolved gases.¹³ However, nothing in GreenGen's application states that the proposed project would necessarily run for 8-10 hours a day; instead, the reference is descriptive of the project reservoir's total capacity. Similarly, as noted above, PG&E interprets GreenGen's plan to study raising the dam on the Lower Bear River reservoir to be a certainty and claims that GreenGen's proposal would require substantial modifications to PG&E's facilities. In its answer to PG&E's protest, GreenGen explains that while its plans include studying that possibility, the proposal is not dependent on raising the dam at the Lower Bear River reservoir.¹⁴ Finally, PG&E asserts that GreenGen's proposal to interconnect with PG&E's 16.5-mile-long primary transmission line would require the complete removal of the line.¹⁵ However, at this stage, it is not clear whether interconnection with PG&E's transmission line is even possible, or whether GreenGen would need to construct an additional line to carry its project's power to the grid.

8. As was true with PG&E's first permit application, the operational impacts on the Mokelumne River Project are speculative at this stage in the preliminary permit process, and we decline to find that PG&E's alleged impacts are a certainty. The Mokelumne River Project spans seven storage reservoirs, four powerhouse developments, and numerous diversions and conduits. GreenGen's proposed project would only concern a small portion of PG&E's facilities, and it would be premature to determine whether any

¹² See *Pacific Gas and Electric Co.*, 149 FERC ¶ 62,184 (2014).

¹³ PG&E Protest at 6.

¹⁴ GreenGen's November 30, 2016 Motion for Leave to Answer and Answer at 5-9 (GreenGen Answer). GreenGen asserts that it does not propose modifications to PG&E's Salt Springs reservoir or the associated power generation facilities and states that its initial engineering shows that the pumped storage project could be constructed to avoid conflicts with PG&E's power generation facilities.

¹⁵ PG&E Protest at 5.

potential impacts would be barred by section 6. As noted above, GreenGen proposes to make use of the Salt Springs reservoir, which houses one of the the Mokelumne River Project's four powerhouse developments, and an upstream storage reservoir. Although GreenGen does plan to study the possibility of altering the lower reservoir's impoundment, the application¹⁶ and GreenGen's response to PG&E's protest¹⁷ make clear that the proposed project would not necessarily require physical modifications to PG&E's power generation or storage reservoir facilities. Accordingly, section 6 does not preclude our affording GreenGen the opportunity to determine the feasibility of its pumped storage project through the preliminary permit process. That said, we caution that, while section 6 does not bar GreenGen's proposal at the permit stage, the Commission may reject a proposal at any stage of the licensing process, including when an applicant files a Notice of Intent (NOI) and Preliminary Application Document (PAD), if it becomes clear that the project would unduly interfere with PG&E's licensed facilities in violation of section 6. Accordingly, GreenGen must assume the risk that we might determine that a project it ultimately proposes is barred by section 6.

B. Site Banking

9. Mokelumne Stakeholders' protest also contends that GreenGen lacks the experience to construct and operate the proposed project and expresses concern that, because GreenGen has never managed a project of this size and complexity, GreenGen would ultimately be unable to develop the project and, therefore, must be engaged in site banking.¹⁸ Mokelumne Stakeholders compares GreenGen to PG&E and Sacramento Municipal Utility District, which Mokelumne Stakeholders state have recently withdrawn from pumped storage projects due to market and financial challenges.¹⁹ Mokelumne Stakeholders make this comparison to show that pumped storage projects are risky ventures that even sophisticated energy companies are often unable to complete. Accordingly, GreenGen, an untested limited liability company, must, in Mokelumne Stakeholders' view, be site banking because it does not have the ability to study, construct, or operate the proposed project.

¹⁶ Application at 8-11.

¹⁷ GreenGen Answer at 5-9.

¹⁸ The Commission's policy against site banking is that an entity that is unwilling or unable to develop a site should not be permitted to maintain the exclusive right to develop it. *See, e.g., Sutton Hydroelectric Company, LLC*, 147 FERC ¶ 61,039, at P 20 (2014); *Greybull Valley Irrigation District*, 143 FERC ¶ 61,131, at P 15 (2013).

¹⁹ Mokelumne Stakeholders Protest at 6-7.

10. Contrary to Mokelumne Stakeholders' protest, the Commission does not require proof of an applicant's ability to perform studies or pursue a project to completion at the preliminary permit stage.²⁰ Indeed, we have previously found that "[n]o permit applicant can be expected to certify its intent to ultimately develop the proposed project, since the feasibility of the project is the subject of the permit studies."²¹ Furthermore, the Commission has procedures in place to ensure that permittees are actively pursuing project exploration. For example, the Commission can cancel a permit during its term if the permittee fails to file periodic progress reports or show due diligence in studying the feasibility and potential effects of a proposed project.²² Here, there is no evidence in the record that GreenGen does not intend to study the feasibility of the pumped storage project. Therefore, we conclude that there is no evidence of site banking.

C. Issues Related to Project Construction and Operation

11. Interior expresses concern that fish, wildlife, and aquatic resources could be adversely affected by project construction and operation, which it contends could adversely affect the North Mokelumne River watershed, cause increased streambank erosion, alter the timing and quantity of streamflow releases, and other disruptions that could affect the native fish, aquatic organisms, and riparian communities. The Forest Service notes that the proposed project could impact sensitive, threatened, and endangered species, cultural resources, and nearby streams, tributaries, and the watershed. Similarly, East Bay MUD and Amador raise concerns about the project's impact on their responsibilities to deliver water to their customers.

12. A preliminary permit does not authorize a permittee to undertake any ground disturbance or construction of the proposed project. Nor does the permit authorize access to the property of others.²³ The purpose of a preliminary permit is to study the feasibility

²⁰ See *Lock+Hydro Friends Fund I*, 138 FERC ¶ 61,189, at P 6 (2012).

²¹ *Id.*

²² 16 U.S.C. § 798 (2012).

²³ The Forest Service states that GreenGen will need to acquire a Special Use Authorization if it plans to use Forest Service system roads to complete the studies as described in the application.

of the project, including studying potential impacts.²⁴ During the permit term, the permittee will investigate the technical and economic feasibility of the proposed project. More specific information on project design and a more detailed description of the proposed project, including project economics, possible interconnections, and electric generation will be provided during the preparation of any development application. Therefore, issues regarding the environmental and operational impacts of a proposed project are premature at the preliminary permit stage.²⁵ Should GreenGen file a NOI and PAD, these issues will be addressed in the licensing process.

D. Consultation and Study Requirements under the Permit

13. Interior recommends that GreenGen obtain information and study numerous project effects on endangered and threatened species, aquatic resources, and terrestrial resources.

14. Permit conditions are designed to ensure that the permittee pursues in good faith a study of the project's feasibility. However, the Commission has not sought to place all relevant study requirements in preliminary permits.²⁶ Rather, the studies to be undertaken by a permittee are shaped by the Commission's filing requirements for development applications. The permittee must obtain such information as is necessary to determine the feasibility of the proposed project and to prepare a development application. A potential development applicant is required to consult with appropriate state and federal resource agencies and affected Indian tribes, conduct all reasonable studies requested by the agencies, and solicit comments on an application before it is filed.²⁷ Therefore, should GreenGen file a development proposal, state and federal resources agencies will have the opportunity to request that GreenGen conduct reasonable studies pursuant to the Commission's regulations.

²⁴ Section 4.81 of the Commission's regulations requires that a permit application include a description of the proposed project, the estimated interconnection, the estimated average annual energy production, a statement of the costs and financing, and other information "to the extent possible." 18 C.F.R. § 4.81 (2017).

²⁵ See, e.g., *New Summit Hydro, LLC*, 149 FERC ¶ 61,033, at PP 22-24 (2014).

²⁶ See, e.g., *Continental Lands Inc.*, 90 FERC ¶ 61,355, at 62,177 (2000).

²⁷ See 18 C.F.R. § 4.38 (2017).

III. Permit Information

15. Section 4(f) of the FPA authorizes the Commission to issue preliminary permits for the purpose of enabling prospective applicants for a hydropower license to secure the data and perform the acts required by section 9 of the FPA,²⁸ which in turn sets forth the material that must accompany an application for license. The purpose of a preliminary permit is to preserve the right of the permit holder to have the first priority in applying for a license for the project that is being studied.²⁹ Because a permit is issued only to allow the permit holder to investigate the feasibility of a project while the permittee conducts investigations and secures necessary data to determine the feasibility of the proposed project and to prepare a license application, it grants no land-disturbing or other property rights.³⁰

16. During the course of the permit, the Commission expects that the permittee will carry out pre-filing consultation and study development leading to the possible development of a license application. The pre-filing process begins with preparation of a NOI and PAD pursuant to sections 5.5 and 5.6 of the Commission's regulations.³¹ The permittee must use the Integrated Licensing Process unless the Commission grants a request to use an alternative process (Alternative or Traditional Licensing Process). Such a request must accompany the NOI and PAD and set forth specific information justifying the request.³² Should the permittee file a development application, notice of the application will be published, and interested persons and agencies will have an

²⁸ 16 U.S.C. § 802 (2012).

²⁹ See, e.g., *Mt. Hope Waterpower Project LLP*, 116 FERC ¶ 61,232, at P 4 (2006) (“The purpose of a preliminary permit is to encourage hydroelectric development by affording its holder priority of application (i.e., guaranteed first-to-file status) with respect to the filing of development applications for the affected site.”).

³⁰ Issuance of this preliminary permit is thus not a major federal action significantly affecting the quality of the human environment. A permit holder can only enter lands it does not own with the permission of the landholder, and is required to obtain whatever environmental permits federal, state, and local authorities may require before conducting any studies. See, e.g., *Three Mile Falls Hydro, LLC*, 102 FERC ¶ 61,301, at PP 6–7 (2003); see also *Town of Summersville, W.Va. v. FERC*, 780 F.2d 1034 (D.C. Cir. 1986) (discussing the nature of preliminary permits).

³¹ 18 C.F.R. §§ 5.5 and 5.6 (2017).

³² 18 C.F.R. § 5.3 (2017).

opportunity to intervene and to present their views concerning the project and the effects of its construction and operation.

17. Article 4 of this permit requires the permittee to submit a progress report no later than the last day of each six-month period from the effective date of this permit. A progress report must describe the nature and timing of what the permittee has done under the pre-filing requirements of section 4.38 and Part 5 of the Commission's regulations for the specific reporting period. A permit may be cancelled if a permittee fails to file a timely progress report or if the report does not demonstrate that progress is being made by the permittee. The late filing of a report or the supplementation of an earlier report in response to a notice of probable cancellation will not necessarily excuse the failure to comply with the requirements of this article.

18. A preliminary permit is not transferable. The named permittee is the only party entitled to the priority of the application for license afforded by this preliminary permit. In order to invoke permit-based priority in any subsequent licensing competition, the named permittee must file an application for license as the sole applicant, thereby evidencing its intent to be the sole licensee and to hold all proprietary rights necessary to construct, operate, and maintain the proposed project. Should any other parties intend to hold, during the term of any license issued, any of these proprietary rights necessary for project purposes, they must be included as joint applicants in any application for license filed. In such an instance, where parties other than the permittee are added as joint applicants for license, the joint application will not be eligible for any permit-based priority.³³

The Commission orders:

(A) A preliminary permit is issued for the Mokelumne Pumped Storage Project No. 14796 to GreenGenStorage LLC, for a period effective the first day of the month in which this permit is issued, and ending either 36 months from the effective date or on the date that a development application submitted by the permittee has been accepted for filing, whichever occurs first.

(B) This preliminary permit is subject to the terms and conditions of Part I of the Federal Power Act and related regulations. The permit is also subject to Articles 1 through 4, set forth in the attached standard form P-1.

³³ See *City of Fayetteville Public Works Commission*, 16 FERC ¶ 61,209 (1981).

(C) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days of the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 8251 (2012), and section 385.713 of the Commission's regulations, 18 C.F.R. § 385.713 (2017).

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

Form P-1 (Revised April 2011)**FEDERAL ENERGY REGULATORY COMMISSION****TERMS AND CONDITIONS OF
PRELIMINARY PERMIT**

Article 1. The purpose of the permit is to maintain priority of application for a license during the term of the permit while the permittee conducts investigations and secures data necessary to determine the feasibility of the proposed project and, if the project is found to be feasible, prepares an acceptable application for license. In the course of whatever field studies the permittee undertakes, the permittee shall at all times exercise appropriate measures to prevent irreparable damage to the environment of the proposed project. This permit does not authorize the permittee to conduct any ground-disturbing activities or grant a right of entry onto any lands. The permittee must obtain any necessary authorizations and comply with any applicable laws and regulations to conduct any field studies.

Article 2. The permit is not transferable and may, after notice and opportunity for hearing, be canceled by order of the Commission upon failure of the permittee to prosecute diligently the activities for which a permit is issued, or for any other good cause shown.

Article 3. The priority granted under the permit shall be lost if the permit is canceled pursuant to Article 2 of this permit, or if the permittee fails, on or before the expiration date of the permit, to file with the Commission an application for license for the proposed project in conformity with the Commission's rules and regulations then in effect.

Article 4. No later than the last day of each six-month period from the effective date of this permit, the permittee shall file a progress report. Each progress report must describe, for that reporting period, the nature and timing of what the permittee has done under the pre-filing requirements of 18 C.F.R. sections 4.38 and 5.1-5.31 and other applicable regulations; and, where studies require access to and use of land not owned by the permittee, the status of the permittee's efforts to obtain permission to access and use the land. Progress reports may be filed electronically via the Internet, and the Commission strongly encourages e-filing. Instructions for e-filing are on the Commission's website at <http://www.ferc.gov/docs-filing/efiling.asp>. To paper-file instead, mail four copies of the progress report to the Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426.