

INITIAL STATEMENT

REVISION 2 NOVEMBER 20, 2015 ~~REVISED AUGUST 15, 2014~~

Initial Statement

Before the Federal Energy Regulatory Commission

Application for License for a Major Water Power Project, 5 Megawatts or Less.

(1) Rugraw, LLC applies to the Federal Energy Regulatory Commission for a license for the Lassen Lodge Hydroelectric water power project, as described hereinafter. FERC project number 12496.

(2) The location of the project is:

- (i) State or territory: California
- (ii) County: Tehama
- (iii) Township or nearby town: Mineral, CA
- (iv) Stream or other body of water: South Fork Battle Creek

(3) The exact name, address, and telephone number of the applicant are:

- Rugraw, LLC, PO Box 421,
- Tiburon, CA 94920.
- Shipping Address: 70 Paseo Mirasol, Tiburon, CA 94920,
- Telephone number: 415-652-8553

(4) The exact name, address, and telephone number of each person authorized to act as agent for the applicant in this application, if applicable, are:

- Charles (Charlie) Kuffner,
- 70 Paseo Mirasol, Tiburon, CA 94920,
- Telephone number: 415-652-8553, and

- James (Jim) Tompkins,
- 16464 Plateau Circle, Redding, CA 96001
- Telephone: 530-246-0103

(5) The applicant is Limited Liability Company (LLC) organized in the State of California and is not claiming preference under section 7(a) of the Federal Power Act. See 16 U.S.C. 796.

(6)(i) The statutory or regulatory requirements of the state(s) in which the project would be located that affect the project as proposed with respect to bed and banks and the appropriation, diversion, and use of water for power purposes, and with respect to the right to engage in the business of developing, transmitting, and distributing power and in any other business necessary to accomplish the purposes of the license under the Federal Power Act, are: The California State Water Resources Control Board (SWRCB), and Tehama County.

(ii) The steps which the applicant has taken or plans to take to comply with each of the laws cited above are: The applicant ~~will be~~ has submitting a California Environmental Quality Act (CEQA) application with the SWRCB being the “lead” agency in conjunction with Tehama County, CA. The applicant ~~will submit~~ has submitted for a Water Quality Certification with the SWRCB. For project work within the stream bed, the applicant will obtain a Section 404 permit from the Army Corp or Engineers and a

streambed alteration permit from the California Department of Fish and Wildlife. Also, the applicant ~~will~~ submit has submitted for an appropriate Building Permit with Tehama, County, CA.

(7) Brief project description

(i) Proposed installed generating capacity 5MW.

(ii) Check appropriate box:

existing dam

unconstructed dam

existing dam, major modified project (see § 4.30(b)(14))

(8) Lands of the United States affected (shown on Exhibit G):

(i) Lands of the United States affected: None

(ii) National Forest: None

(iii) Indian Reservation: None

(iv) Public Lands under Jurisdiction Of Tehama County: Approximately 1.5 mile of transmission line will be located in the Tehama County, CA public road right-of-way - approximately 3.40 Acres. If the "Alternate" Transmission Route is selected, -approximately 2 miles of transmission line will be located in the Tehama County, CA public road right-of-way - approximately 4.53 Acres.

(v) Other: None

(vi) Total U.S. Lands: None

(vii) Check appropriate box:

Surveyed land Unsurveyed land

(9) Construction of the project is planned to start within 11 months, and is planned to be completed within 30 months, from the date of issuance of license.

(10) The exhibit must include, in tabular form if possible, as appropriate:

<p>(i) The number of generating units is of a nameplate capacity of and there are There are</p> <p>(ii) A hydraulic turbine type:</p> <p>(iii) The plant will be with and will</p> <p>(iv) The estimated average annual generation is - depending on actual stream flows;</p> <p>(v) The estimated with an at the</p> <p>(cfs). For lower operating flows between 95 cfs and 5 cfs, the head will increase as the pressure losses in the pipeline/penstock are reduced due to the lower flows;</p> <p>(vi) The reservoir surface area shall be approximately and, since this is a run of the river project, there is</p> <p>(vii) The estimated minimum and maximum hydraulic capacity of the plant (flow through the plant) is 5 to 95 cubic feet per second (cfs) respectively. The estimated average flow of the stream at the point of diversion is illustrated in monthly flow duration curves included in the application. The drainage area for</p>	<p>one (1) unit 5 MW, no auxiliary units. no provisions for future units. two-jet horizontal Pelton; operated automatically manual override capabilities not be used for peaking 25,000,000 kilowatt-hours</p> <p>static (gross) head is 866 feet, operating head (net) of 791 feet full operational design flow of 95 cubic feet per second</p> <p><u>0.5 0.4</u> acres no storage capacity;</p>
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the project is approximately 33 square miles of the South Fork Battle Creek drainage above the project diversion site

(viii) As shown and detailed in Exhibit F, Drawings,

The diversion dam and intake structure will be located at river mile 23 approximately 0.5 RM upstream of the Old State Highway Route 36 Bridge at a finished floor elevation of ~~4,304~~ 4,302 feet and a water surface level of 4,310 feet.

The diversion works will include a diversion dam, intake structure, and a control/fish screen structure.

The diversion site will utilize existing natural water features and topography to minimize environmental impacts in the area of the diversion.

The diversion will be 94 63 feet in total length by 2 8 feet wide with a maximum depth of 8 feet below the natural ground surface, and at an installed height of 6 8 feet above the natural streambed floor.

The intake and control structure impacted area is approximately 20 feet by 125 99 feet and construction depth will vary from 2 feet to a maximum of 8 feet below ground surface.

The control/fish screen structure will be an approximately 12 20 feet by 48 59 feet within an enclosed concrete structure. The control/fish screen structure ~~will be connected to~~ is contiguous with the intake structure.

The Project will include: 7,258 7,565 feet

of 48-inch high-density polyethylene (HDPE) low-pressure pipeline and 5,230 feet of 36-inch welded steel high-pressure penstock.

The total length of the pipeline/penstock will be approximately ~~12,488~~ 12.795 feet (2.4 miles) along a 40-foot-wide pipeline/penstock right-of-way (ROW).

The low-pressure pipeline will comprise approximately 1.4 miles

and the high-pressure penstock will comprise the remaining 1 mile.

Power generated from the Project will be transmitted by a new approximately 12-mile-long 60 kV transmission line within 40-foot-wide ROW

easements to the point of interconnection (POI) on the existing Pacific Gas and Electric Volta-South transmission line in the town of Manton, California. The new transmission line will begin at the substation (at SF Battle Creek) and proceed in a westerly direction approximately one-half mile down the canyon. It will then turn north approximately 1 mile, crossing Panther Creek. The transmission line then traverses west-northwest approximately 10.5 miles to the switchyard and POI on South Powerhouse Road in the town of Manton. Approximately 1.5 mile of transmission line will be located in the Tehama County, CA public road right-of-way - approximately 3.40 Acres. If the “Alternate” Transmission Route is selected, approximately 2 miles of transmission line will be located in the Tehama County, CA public road right-of-way - approximately 4.53 Acres.

The powerhouse will be located on the south bank of the South Fork Battle Creek (SF Battle Creek) with a floor elevation of approximately 3,450 feet

The powerhouse will consist of a reinforced concrete foundation and a metal building designed to blend into the natural environment. The turbine within the powerhouse will consist of two-jet horizontal Pelton-type and will be closed-coupled to a synchronous generator.

Tailwater from the turbine will exit (fall off) at atmospheric pressure into the tailwater chamber (floor invert elevation 3,435.6 feet

within the powerhouse foundation.

Tailwater will then enter the buried concrete box culvert (8 feet by 6 feet by 70 feet)

and exit to the stream at invert elevation of 3,417 feet

(ix) The estimated cost of the project is ~~\$16~~ 17 Mill.

(x) The estimated capital cost is \$13.5 Mill. and the estimated annual operation and maintenance Expense, including all environmental management measures, is \$300,000 per year

(11) The purpose of the project is to generate electricity utilizing clean GREEN renewable hydroelectric equipment to help meet the renewable portfolio standard (RPS) goals mandated by the laws of the State of California.

(12) An estimate of the cost to develop the license application is ~~\$2.25~~ 3.25 Million

(13) The on-peak and off-peak values of project power (expressed in units of Dollars (\$) per Megawatt Hour (MWhr)), based on the Power Purchase Agreement (PPA) the project entered into with the power off-taker, San Diego Gas and Electric Company (SDG&E), to purchase 100% of the power generated from this project for 20 years from the commencement of Commercial Operation are as follows:

- (i) Winter On-Peak - Nov 1 - Jun 30 Weekdays 1 pm to 9 pm PST: \$X*/MWhr
- (ii) Winter Semi-Peak - Nov 1 - Jun 30 Weekdays 6 am to 1 pm PST and Weekdays 9 pm to 10 pm PST: \$ Y*/MWhr
- (iii) Winter Off-Peak - Nov 1 - Jun 30 All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered On-Peak or Semi-Peak: \$Z*/MWhr
- (iv) Summer On-Peak - Jul 1 - Oct 31 Weekdays 11 am to 7 pm PST: \$A*/MWhr
- (i) Summer Semi-Peak - Jul 1 - Oct 31 Weekdays 6 am to 11 am PST and Weekdays 7 pm to 10 pm PST: \$B*/MWhr
- (ii) Summer Off-Peak Jul 1 - Oct 31 All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered On-Peak or Semi-Peak: \$C*/MWhr

* Note: Rates are confidential per PPA agreement with SDG&E. Applicant has uploaded a confidential copy of the executed RAM IV PPA with SDG&E to the FERC e-library as requested by FERC and approved by SDG&E. See Section 4 of that agreement for the values of project power and the estimates of when the power will be produced and paid in each Time of Delivery (TOD) period and at which rate.

(14) The project is a run of the river project and is subject to variations in flows based on actual streamflows over time. The PPA is established to purchase all power “as available” from the project based on actual streamflows and plant operations. Since this is a run of the river project, there is no “storage” in the diversion reservoir. Provided there is sufficient natural flow, the minimum in-stream bypass flow of 13cfs will be maintained in the stream. The plant will operate at a minimum of 5cfs, so the

plant will operate at natural flows above 18 cfs. The full operating flow is 95cfs, so, any natural flow over 108 cfs will increase the in-stream flow in the by-pass reach;

(15) The remaining undepreciated net investment, or book value, of the project is approximately \$13.5 Million;

(16) The annual operation and maintenance expenses, including insurance, and administrative and general costs is estimated to be \$240,000 per year

(17) Detailed single-line electrical diagrams of each the Powerhouse and Switchyard are enclosed.

(18) A statement of measures taken or planned to ensure safe management, operation, and maintenance of the project: See below:

Planned Management of Project Operations and Maintenance:

Project Operations:

- (i) Redding, California personnel of Rugraw, LLC will provide 24 Hour remote monitoring and management of all project operating parameters. In the event of alerts received signifying deviation from said parameters, Redding personnel will immediately proceed to the project to ascertain and manage site conditions (estimated maximum travel time to project site is 90 minutes).
- (ii) Local (Manton, California) operation personnel will be on 24 hour standby to respond to site (estimated maximum travel time to project site is 45 minutes).
- (iii) All operations personnel will be trained on, and will observe all, Federal and California Occupational Health and Safety Standards. (Fed OSHA and CAL OSHA).

Maintenance:

- (i) Project maintenance will be managed by Redding Rugraw, LLC personnel with assistance of local (Manton) personnel. Typical on-going maintenance will consist of but not limited to the monitoring and removal of debris from intake and diversion structures to assure the required bypass flows are maintained at all times, patrols to assure security of project facilities and maintenance of access roads, etc. Additional qualified personnel will be provided on an as-needed basis when necessary
- (ii) All management and operational personnel will be experienced and trained in all aspects of project operations to assure professional operation and maintenance of the Lassen Lodge Project.
- (iii) All maintenance personnel will be trained on, and will observe all, Federal and California Occupational Health and Safety Standards. (Fed OSHA and CAL OSHA).