

Parks, Jeff@Waterboards

Subject: FW: FERC filings re: Open Channel Turbines Relevant to P-606 (Kilarc) Water Quality Certification
Attachments: KColdCow_PPapp.pdf; 20130418OrderOnRehearing-3008(28312850).doc

From: Kelly W. Sackheim [<mailto:kelly@kchydro.com>]
Sent: Thursday, April 18, 2013 9:57 AM
To: Parks, Jeff@Waterboards
Cc: [private]
Subject: FERC filings re: Open Channel Turbines Relevant to P-606 (Kilarc) Water Quality Certification

Jeff - The FERC's rejection of the applications for the Kilarc Open Channel Turbines project was based on form rather than substance, so I've already submitted a new application for an Old Cow Creek Open Channel Turbines project. Both are attached.

Needless to say, the construction impacts associated with the dismantling of PG&E's canal, in addition to the construction of new facilities for the proposed open channel turbines would be an unnecessary adverse environmental effect of allowing PG&E and destroy a facility in lieu of allowing future beneficial re-use.

Hence, I would propose the Water Board consider attaching the following:

Mandatory Condition: Impacts of dismantling of PG&E's canal and construction of substitute facilities for reasonably foreseeable future beneficial use of the water resource shall be avoided by allowing facilities to be recommissioned rather than dismantled.

Kelly

p.s. I see that the Water Board website at the link below has not yet been updated with the comments I submitted last week. If you could also have posted your presentation from the hearing there, it may be more accessible for those working over the weekend to prepare comments by your noon Monday deadline.

Initial Statement

In accordance with CFR Title 18 CHAPTER I—Subpart I—Sec. 4.81, before the Federal Energy Regulatory Commission:

Application for Preliminary Permit

(1) KC Pittsfield LLC applies to the Federal Energy Regulatory Commission for a preliminary permit for the proposed

Old Cow Creek Open-Channel Turbines Hydro Project

as described in the attached exhibits. This application is made in order that the applicant may secure and maintain priority of application for a license for the project under Part I of the Federal Power Act while obtaining the data and performing the acts required to determine the feasibility of the project and to support an application for a license or exemption from licensing.

As defined in CFR Title 18 CHAPTER I—Subpart IV – Sec. 4.33, (3), the proposed project would NOT develop, conserve, and utilize, in whole or in part, the same water resources that would be developed, conserved, and utilized by a project for which an initial development application has been filed.

I, Kelly W. Sackheim, subscribe and verify under oath that the information in this original application for preliminary permit is truthful.

(2) The location of the proposed project is:

State or territory: California

County: Shasta

Township or nearby town: Whitmore,

T. 33 N, R. 1 W, S. 25-27, 33 and 34, Mount Diablo Meridian

Stream or other body of water: Old Cow Creek

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

KC Pittsfield LLC

5096 Cocoa Palm Way

Fair Oaks, CA 95628

Phone: 301-401-5978

The exact name and business address of each person authorized to act as agents for the applicant in this application are:

Kelly Sackheim, 5096 Cocoa Palm Way, Fair Oaks, CA 95628

fax: 603-571-5947

pitts@kchydro.com

(4) KC Pittsfield LLC is a New Hampshire-registered limited liability company and is not claiming preference under section 7(a) of the Federal Power Act.

(5) The proposed term of the requested permit is 36 months.

(6) *If there is any existing dam or other project facility, the applicant must provide the name and address of the owner of the dam and facility. If the dam is federally owned or operated, provide the name of the agency.*

The project is proposed to provide new generation utilizing flows diverted from Old Cow Creek immediately upstream of the existing P-606 diversion, that exceed the flows utilized by that project, including minimum instream requirements. New infrastructure, including a diversion and canal, would be installed parallel to the P-606 project facilities unless and until those facilities are decommissioned without being dismantled.

Many members of the nearby Whitmore, Oak Run, Millville, Palo Cedro and Shingletown communities have expressed great interest in the continued operation of hydroelectric facilities in this area, but there are no local government agencies that may have interests. There are no cities, towns, or similar political subdivisions within a fifteen mile radius of the project.

Federal and State government agencies that may have interests are: None.

Exhibit 1. Description of the Proposed Project

Exhibit 1 must contain a description of the proposed project, specifying and including, to the extent possible, the information identified in the following 6 numbered sections.

(1) The number, physical composition, dimensions, general configuration and, where applicable, age and condition, of any dams, spillways, penstocks, powerhouses, tailraces, or other structures, whether existing or proposed, that would be part of the project

The existing approximately 3-mile-long Kilarc Canal has transported water from Old Cow Creek to the Kilarc Forebay since 1903. Several segments of the canal have nature-like conditions while other segments are concrete-sided and/or gunite-lined. Davis Hydro has proposed to establish and operate a Steelhead research facility utilizing primarily the nature-like segments of the canal. The P-14433 and P-14434 Kilarc Open-Channel Turbines preliminary permit applications proposed to introduce open-channel turbines recently piloted by Hydrovolts into those segments of the canal that are not occupied by fish. If necessary, the turbines may be removed easily during certain periods to facilitate fish passage.

The disposition of the Kilarc Canal remains unknown pending the granting of PG&E's P-606 License Surrender. The applicant for this preliminary permit is proposing to divert water that is already surplus to the P-606 project into a new conduit that would run parallel to PG&E's facilities, unless and until PG&E were granted authorization, or perhaps even mandated, to leave portions of these facilities in place for future beneficial use as an environmentally superior alternative to the original proposal to dismantle.

(2) The estimated number, surface area, storage capacity, and normal maximum surface elevation (mean sea level) of any reservoirs, whether existing or proposed, that would be part of the project

The new diversion would utilize only water that is surplus to PG&E's existing diversion to a 50 cfs-capacity canal. In the long term, it is anticipated that that the diversion would not exceed the historic diversion by PG&E. The existing canal descends from slightly above to slightly below 3800 feet msl. New canal would be configured to accommodate the minimum turbine specifications of 6-foot depth and 13-foot width. The discharge to Old Cow Creek would most likely be located at existing overflow sites along the PG&E's Kilarc Canal and Forebay.

(3) The estimated number, length, voltage, interconnections, and, where applicable, age and condition, of any primary transmission lines whether existing or proposed, that would be part of the project [in accordance with 16 U.S.C. 96(11)]

The distributed-generation scale of each turbine would allow for integration of generation with new distribution lines that will be required for the proposed research facilities.

(4) The total estimated average annual energy production and installed capacity

(provide only one energy and capacity value), the hydraulic head for estimating capacity and energy output, and the estimated number, rated capacity, and, where applicable, the age and condition, of any turbines and generators, whether existing or proposed, that would be part of the project works

Up to 5 new Hydrovolts C-2 (medium) canal open-channel turbines with an average generating capacity of 2 kW may be installed initially in 3 distinct segments of the canal. The velocity (substitute for hydraulic head for estimating capacity and energy output) of the 50 cfs (average flow delivered to Kilarc forebay for subsequent utilization by the P-606 turbines) at each turbine site is anticipated to range from 0.6 to 0.8 feet-per-second.

(5) All lands of the United States that are enclosed within the proposed project boundary described under paragraph (e)(3) of this section, identified and tabulated on a separate sheet by legal subdivisions of a public land survey of the affected area, if available. If the project boundary includes lands of the United States, such lands must be identified on a completed land description form, provided by the Commission. The project location must identify any Federal reservation, Federal tracts, and townships of the public land surveys (or official protractations thereof if unsurveyed). A copy of the form must also be sent to the Bureau of Land Management state office where the project is located.

No lands of the United States are enclosed within the proposed project boundary.

(6) Any other information demonstrating in what manner the proposed project would develop, conserve, and utilize in the public interest the water resources of the region

This project will contribute to the development and refinement of open-channel hydroelectric generating technologies and serve to provide economical, green, renewable energy that will be used in the local area. Cooling associated with maintenance of flows at elevation and hydroelectric generation would benefit downstream habitat used by endangered anadromous fish that is constrained by elevated temperatures.

Exhibit 2. Studies

Exhibit 2 is a description of studies conducted or to be conducted with respect to the proposed project, including field studies and estimated costs.

(1) *General Requirement (Feasibility Studies and any new roads built to conduct studies)*

Given the absence presently of proximate electric interconnection opportunities and the very small scale of generation, the project feasibility will be dependent on either the concurrent development of the proposed Steelhead research facility that would share infrastructure costs and benefit from the electricity generated or potential underwriting by Hydrovolts or other parties that may benefit from having a demonstration/pilot project in northern California to further promote refinement and expansion of the use of open-channel turbine technologies.

(2) *Work Plan for New Dam Construction including (i) description of disturbance that may be caused by studies; and (ii) a completion schedule within the permit timeframe; where the studies would require foundation exploration in the field.*

No new dam construction is proposed.

(3) *Waiver to requirements of (2) immediately above may be granted by the Commission upon a showing by the applicant that activities to be conducted under the permit would not adversely affect cultural resources or endangered species and alterations would be minor and restored.*

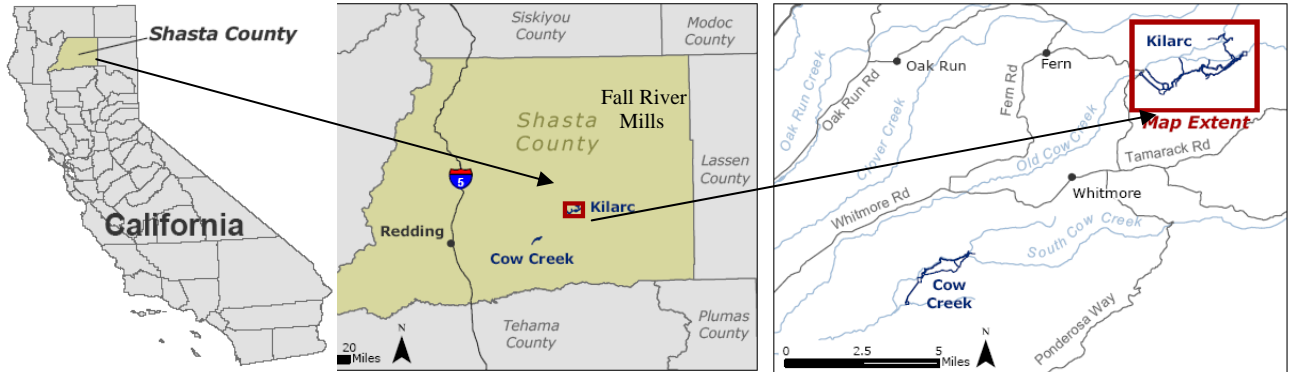
No construction activities are proposed under the permit.

(4) *Statement of Costs associated with Studies described in this Exhibit 2 and sources and extent of financing available.*

Study requirements are minimal based on Kelly Sackheim's involvement in the P-606 license surrender process for over six years, and the extensive documentation associated with the P-606 license surrender process and Steelhead research facility proposal.

Exhibit 3. Maps

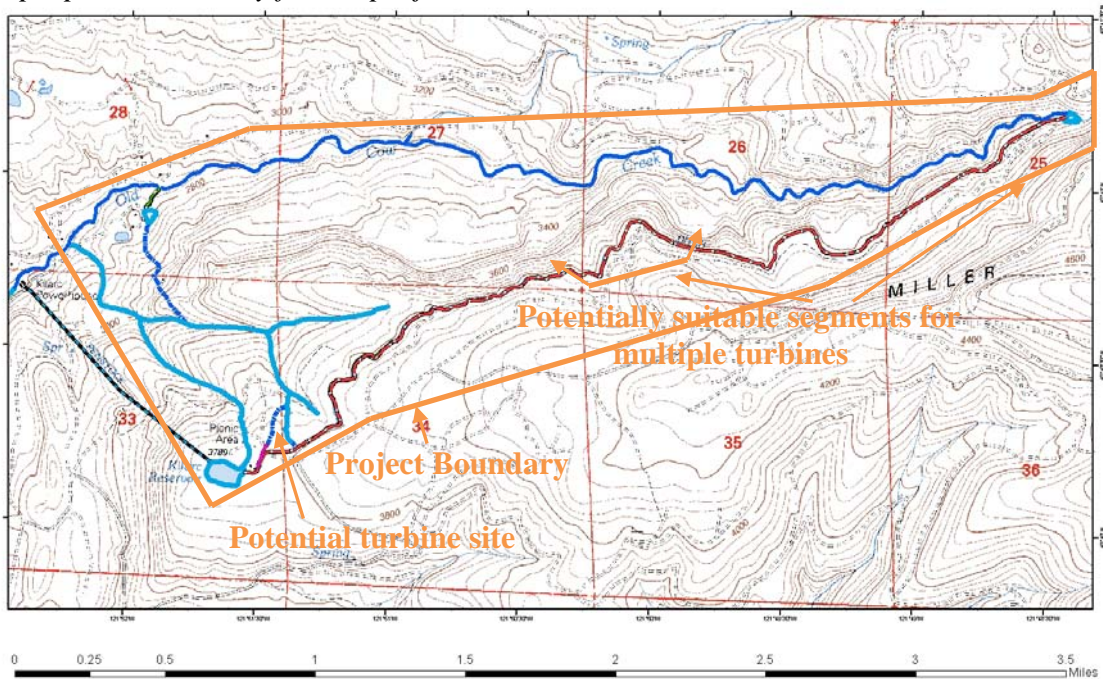
(1) *The location of the project as a whole with reference to the affected stream or other body of water and, if possible, to a nearby town or any permanent monuments or objects that can be noted on the maps and recognized in the field*



(2) *The relative locations and physical interrelationships of the principal project features described in Exhibit 1 to this application*

AND

(3) *A proposed boundary for the project*



(4) *Relationship to the National Wild and Scenic Rivers System*

No areas within or in the vicinity of the proposed project boundary are known to be included in or have been designated for study for inclusion in the National Wild and Scenic Rivers System.

(5) *Relationship to the Wilderness Act*

The project is not known to be located within any area that has been designated or recommended for designation as wilderness area or designated as wilderness study area.

143 FERC ¶ 61,047
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
Cheryl A. LaFleur, and Tony Clark.

Fall River Valley Community Service District
KC Pittsfield LLC

Project No. 14433-001
Project No. 14434-001

ORDER ON REHEARING

(Issued April 18, 2013)

1. On January 17, 2013, Commission staff issued an order dismissing competing preliminary permit applications submitted by Fall River Valley Community Service District (Fall River) and KC Pittsfield LLC (KC Pittsfield) for the Kilarc Open-Channel Turbines Hydro Project No. 14433-000 and the Kilarc Open-Channel Turbines Hydro Project No. 14434-000, respectively.¹ These applications proposed to study the feasibility of developing hydropower on Kilarc Canal, a feature of Pacific Gas and Electric Company's (PG&E) licensed Kilarc-Cow Creek Project No. 606, located near the town of Whitmore in Shasta County, California. On February 19, 2013, KC Pittsfield filed a timely request for rehearing of Commission staff's dismissal.²

Background

2. The Commission issued a license for PG&E's 4.6-megawatt Project No. 606 in 1980, with an expiration date of March 27, 2007.³ The project includes two developments, Kilarc and Cow Creek. As pertinent to this order, the Kilarc

¹ *Fall River Valley Cmty. Serv. Dist.*, 142 FERC ¶ 62,042 (2013).

² KC Pittsfield seeks rehearing of Commission staff's dismissal of both Fall River's and KC Pittsfield's applications. However, under section 313(a) of the Federal Power Act, a request for rehearing may be filed only by a party to a proceeding. 16 U.S.C. § 8251 (2006). KC Pittsfield is not a party to Fall River's proceeding. Therefore, its request for rehearing of the dismissal of Fall River's permit application for Project No. 14433-000 is rejected.

³ *See Pacific Gas and Electric Co.*, 10 FERC ¶ 62,112 (1980).

Development consists of: (1) three small diversion dams (North Canyon Creek, South Canyon Creek, and Kilarc Canal Diversion Dams); (2) a 13-foot-high earthfill dam (Kilarc Dam) impounding a 4.5-acre forebay (Kilarc Forebay); (3) 4.7 miles of canal, including the 3.65-mile-long Kilarc Canal; (4) a 4,801-foot-long penstock (Kilarc Penstock); (5) a powerhouse (Kilarc Powerhouse) containing two generating units with a total rated capacity of 3.23 megawatts; and (6) a short 60-kilovolt transmission line.

3. As licensed, Kilarc Canal, which has a capacity of about 50 cubic feet per second (cfs), receives water from three sources. At the head of Kilarc Canal, the Kilarc Canal Diversion Dam diverts water from Old Cow Creek into Kilarc Canal. In addition, water from North Canyon Creek diverts at the North Canyon Creek Diversion Dam into the North Canyon Creek Canal, which carries water to South Canyon Creek. Water from South Canyon Creek diverts at the South Canyon Creek Diversion Dam into the South Canyon Creek Canal, which flows into the South Canyon Creek Siphon and then into the Kilarc Canal downstream of the Kilarc Canal Diversion Dam. The Kilarc Canal delivers these aggregated water supplies to the Kilarc Forebay, where the impounded water flows through the Kilarc Penstock to the Kilarc Powerhouse. From the powerhouse, water discharges into Cow Creek about four miles downstream from the Kilarc Canal Diversion Dam.

4. The deadline to file applications to relicense the project was March 27, 2005. On March 31, 2005, PG&E notified the Commission that it would not seek a new license for the project based on its determination that decommissioning the project was a viable and cost-effective alternative to relicensing.⁴ On April 7, 2005, the Commission solicited applications from potential applicants other than the licensee.⁵ When no one timely filed a license application,⁶ PG&E submitted its surrender application, proposing to remove the North Canyon Creek, South Canyon Creek, and Kilarc Canal Diversion Dams and

⁴ See March 31, 2005 letter filed by PG&E in Project No. 606-000. In 2002, PG&E had filed a notice of intent to file an application for a new license for the Kilarc-Cow Creek Project. However, following consultations with stakeholders, PG&E decided to surrender its license and partially remove the project facilities. This decision was the result of an agreement between PG&E, state and federal resource agencies, and non-governmental organizations.

⁵ See 18 C.F.R. § 16.25 (2012). That section provides that an applicant must file, within 90 days, a notice of intent to submit a relicense application and must file its relicense application no later than 18 months after filing its notice of intent. 18 C.F.R. § 16.25(b) (2012).

⁶ On June 27, 2005, Synergics Energy Services filed a timely notice of intent to file a relicense application, but never submitted its application.

thus dewater Kilarc Canal. PG&E also proposes to remove Kilarc Dam and fill in Kilarc Forebay. The surrender proceeding is pending before the Commission.⁷

5. On July 13, 2012, KC Pittsfield filed an application for a preliminary permit to study the feasibility of the Kilarc Open-Channel Turbines Hydro Project No. 14434-000. The project would develop the energy potential of Kilarc Canal's 50-cfs flow by using up to five two-kilowatt (kw) open channel turbine generators, which would be placed in three segments of Kilarc Canal, for a total capacity of 10 kw. The proposed project would include the Kilarc Canal Diversion Dam and the Kilarc Canal and would operate on a run-of-release basis.

6. On January 17, 2013, Commission staff issued an order dismissing KC Pittsfield's permit application, explaining that it would not issue a preliminary permit for a project that would use facilities proposed to be surrendered and removed. Citing to the Commission's order in *Thermalito Afterbay Hydro, LLC (Thermalito)*,⁸ the order stated that the Commission would not accept preliminary permit or development applications for the site until after the Commission acts on the surrender proceeding.

7. On February 19, 2013, KC Pittsfield filed a timely request for rehearing.

Discussion

8. KC Pittsfield argues Commission staff erroneously relied on *Thermalito*. It contends that in *Thermalito* "the water resource itself would potentially be unavailable to the permit applicant" due to the licensee's potential future use of the water, whereas here it is the project facilities that carry the water that might not be available.⁹

9. We disagree. The facts in *Thermalito* support Commission staff's dismissal of KC Pittsfield's permit application. In both cases, whether the water resource proposed for development by a permit applicant would actually be available for development would depend on the outcome of pending proceedings (i.e., a relicense proceeding in *Thermalito* and a license surrender proceeding here). Because PG&E proposes to remove the dams, dewater Kilarc Canal, and fill in Kilarc Forebay, KC Pittsfield's proposal is wholly dependent on the outcome of PG&E's surrender proceeding, and we accordingly affirm

⁷ See PG&E's March 13, 2009 Filing in P-606-027. On August 16, 2011, Commission staff issued a Final Environmental Impact Statement (FEIS) for the surrender, recommending adoption of PG&E's surrender proposal. See FEIS at Section 4.4.

⁸ *Thermalito Afterbay Hydro, LLC*, 132 FERC ¶ 62,008 (2010), *reh'g denied*, 133 FERC ¶ 61,053 (2010).

⁹ Rehearing Request at 2-3.

the dismissal of KC Pittsfield's permit application.¹⁰ Should the outcome of the surrender proceeding result in the project facilities remaining in place, KC Pittsfield or any other applicant can file a preliminary permit application for the site.

10. Citing to *KW Sackheim Development*,¹¹ KC Pittsfield asks instead that the Commission issue a preliminary permit to it with a condition that if PG&E proposes to develop the same incremental capacity of the Kilarc Canal, then KC Pittsfield would lose its permit priority to develop that capacity. However, such a condition is inapplicable here as PG&E proposes to surrender the project facilities, not develop them.¹²

11. For the above reasons, we affirm the dismissal of KC Pittsfield's preliminary permit application for Project No. 14434.

The Commission orders:

(A) The request for rehearing filed by KC Pittsfield LLC in Project No. 14433 on January 17, 2013, is rejected.

(B) The request for rehearing filed by KC Pittsfield LLC in Project No. 14434 on January 17, 2013, is denied.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

¹⁰ See also *Skokomish Indian Tribe*, 71 FERC ¶ 61,023, at n.11 (1995). In that case, the Commission noted that section 4.32(j) of the Commission's regulations, 18 C.F.R. § 4.32(j) (2012), provided another possible basis for dismissing the permit application. That section provides that "any application, the effectiveness of which is conditioned upon the future occurrence of any event or circumstance, will be rejected."

¹¹ 130 FERC ¶ 62,130 (2010) (issuing permit for project proposing to develop incremental hydropower of licensed project undergoing pre-filing stages of the Commission's relicensing process).

¹² KC Pittsfield also raises questions regarding the adequacy of Commission staff's analysis in the FEIS for the Project No. 606 surrender proceeding. However, those issues are not relevant to this proceeding, and to the extent they have been raised in the Project No. 606 proceeding, they will be addressed there.