

ORIGINAL



Pacific Gas and Electric Company

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OFFICE OF THE
SECRETARY

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FEDERAL ENERGY
REGULATORY COMMISSION

January 11, 2005

Honorable Magalie Roman Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: Upper North Fork Feather River Project - FERC No. 2105-089
Response to December 17, 2004 Additional Information Request**

Dear Secretary Salas:

The attachment to this letter provides the Pacific Gas and Electric Company's response to the Commission's December 17, 2004 Additional Information Request (AIR).

Parties interested in obtaining copies of the reports referenced in this AIR response can be obtained by contacting me at (415) 973-9320.

Sincerely,

Tom Jereb
Upper North Fork Feather River Project Manager

Original and 8 copies to FERC

Attachment

Cc: Project 2105 Service List
Project 2105 Interested Parties List

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Project 2105 Interested Parties:

**American Whitewater
Mr. John T Gangemi
482 Electric Ave.
Bigfork, MT 59911**

**Water Resources Control Board
Mr. Jim Canaday
P. O. Box 2000
Sacramento, CA 95812**

**Maidu Cultural and Development Group
Mr. Farrell Cunningham
P. O. Box 426
Greenville. CA 95947**

**Baiocchi Family
Mr. Robert J Baiocchi
P. O. Box 1790
Graeagle, CA 96103**

**Water Resources Control Board
Ms. Sharon Stohrer
P. O. Box 2000
Sacramento, CA 95812**

**Greenville Rancheria
Ms. Lorie Jaimes, Tribal Chair
410 Main Street
Greenville, CA 95974**

**California Trout
Mr. Curtis Knight
P. O. Box 650
Mt. Shasta, CA 96067**

**County of Plumas
County Counsel
520 Main Street, Room 302
Quincy, CA 95971-9115**

**Susanville Indian Rancheria
Valerie Edwards, Tribal Chairperson
Drawer U
Susanville, CA 96130**

**CA Dept. of Fish and Game
Mr. Banky Curtis, Reg. Mgr.
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670**

**County of Plumas
Tom Hunter
1834 East Main
Quincy, CA 95971**

**Susanville Indian Rancheria
Mr. Alan Lowry
Drawer U
Susanville, CA 96130**

**CA Dept. of Fish and Game
Ms. Lori Powers
P. O. Box 1858
Portola, CA 96122**

**Lake Almanor 2105 Committee
P. O. Box 3343
Lake Almanor, CA 96137-3343**

**Honey Lake Maidu
Mr. Jeremy Peconom
7597 Elizabeth Road
Vacaville, CA 96130**

**CA Dept. of Fish and Game
Robert Hughes
Native Anadromous Fish and
Watershed Branch
830 S Street
Sacramento, CA 95814**

**Supervisor Bill Dennison
Board of Supervisors, Plumas
County
520 West Main Street, Room 309
Quincy, CA 95971**

**Honey Lake Maidu
Mr. Ron Morales
1101 Arnold Street
Susanville, CA 96130**

**Shasta Paddlers
Mr. Kevin Lewis
4641 Hornbeck Ln
Anderson, CA 96007-2631**

**Supervisor Robert Meacher
Board of Supervisors, Plumas
County
520 West Main Street, Room 309
Quincy, CA 95971**

**CA Sportfishing Protection Alliance
Mr. Jerry Mensch
1673 Kendall Street
Roseburg, OR 97470**

**Chico Paddleheads
Mr. Dave Steindorf
179 Valley Ridge Dr.
Paradise, CA 95964**

**County of Plumas
Ms. Christi Goodman
1834 East Main
Quincy, CA 95971**

**California Hydropower Reform Coalition
Ms. Luara Norlander
2140 Shattuck Ave. 5th Floor
Berkeley, CA 94704**

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**Friends of the River
Ms. Kelly Catlett
915 20th Street
Sacramento, CA 95814-3115**

**U. S. Forest Service
Mr. Mike Taylor
Feather River Ranger District
875 Mitchell Ave.
Oroville, CA 95965-4699**

**U. S. Forest Service
Mr. Bob Hawkins
Regional Hydropower Coordinator
650 Capitol Mall, Room 7524
Sacramento, CA 95814**

**Trout Unlimited
Chuck Bonham
828 San Pablo Ave., Suite 208
Albany, CA 94706**

**National Marine Fisheries Service
Eric Theiss
650 Capitol Mall, Suite 8-300
Sacramento, CA 95814**

**U.S. Fish and Wildlife Service
Endangered Species Branch
2800 Cottage Way, Room W-2605
Sacramento, CA 95825**

**U. S. Forest Service
Ms. Terri Simon - Jackson
159 Lawrence Street
Quincy, CA 95971-6025**

**U.S. Fish and Wildlife Service
Mr. Steven Schoenberg
2800 Cottage Way, Rm W2605
Sacramento, CA 95825**

**Federal Energy Regulatory Commission
Mr. John Mudre
Mail Code PJ-11.7
888 First Street, N.E.
Washington, DC 20426**

**National Park Service
Mr. Stephen Bowes
1111 Jackson St., Suite 700
Oakland, CA 94607**

**Ms. Frankie Green
Lois Berger Group
655 Cherokee Heights Road
Tallassee, AL 36078**

**Mr. Takeshi Yamashita
Federal Energy Regulatory Commission
901 Market Street, Suite 350
San Francisco, CA 94103-1778**

Upper North Fork Feather River Project, FERC No. 2105 Licensee Reply Response to

**FERC'S DECEMBER 17, 2004
ADDITIONAL INFORMATION REQUEST**

FERC's December 17, 2004 A.I.R. Please file an original and eight copies of the above-mentioned study results and/or reports. (The request is for recent reports and information on water temperature alternatives.)

Licensee Response to FERC's December 17, 2004 A.I.R.:

Study Reports Concerning Water Temperature: A Compact Disk (CD) is provided herein which includes copies of the study reports and information below. Licensee has conducted seven principle studies assessing the feasibility of obtaining colder water in the North Fork Feather River. An executive summary (PG&E 2004a) which summarizes each of the seven study results and contains some examples of the most current simulation results is included herein for reference. Copies of the seven principle study reports are also included and listed below. Note that some of the study reports are in draft form. The majority of the study effort described in the seven study reports is associated with obtaining cold water from Lake Almanor through the use of floating thermal curtains or other means. For the reader's reference, below is a list of the cold water alternatives evaluated:

1. Six configurations of floating curtains (thermal curtains) at Prattville Intake at Lake Almanor
2. Two configurations (long and short) of a submerged pipeline and hooded pipe at Prattville Intake at Lake Almanor
3. Dredging of Prattville Intake area and nearby underwater channel at Lake Almanor only or in combination with Alternatives 1 and 2 above
4. Two floating thermal curtains in Butt Valley Reservoir and one floating thermal curtain at Prattville Intake at Lake Almanor
5. Reduced Butt Valley Powerhouse flows to draw cooler Lake Almanor water
6. Reduced Butt Valley Powerhouse flows to draw cooler Lake Almanor water combined with high water releases at Canyon Dam
7. Selectively operating Caribou 1 over Caribou 2 to draw cooler Butt Valley Reservoir water
8. Selective operation of Canyon Dam Tower outlet gates (high/low gates) to preserve cold water in Lake Almanor
9. Higher water releases at Belden Dam to cool Belden bypass reach
10. Higher water releases at Rock Creek Dam to cool Rock Creek bypass reach
11. Higher water releases at Cresta Dam to cool Cresta bypass reach
12. Higher water releases at Poe Dam to cool Poe bypass reach
13. Reoperation of the Bucks Creek Project

In addition, Licensee has evaluated ten additional alternatives to provide colder water to the North Fork Feather River. A copy of the evaluation of additional alternatives study report is included herein (PG&E 2004c). The ten additional alternatives are basically two categories of

alternatives: 1) cooling water with refrigeration or cooling towers and 2) developing new sources of cool water. The ten additional alternatives evaluated are the following:

1. Mechanical Cooling Tower Alternative
2. Mechanical Water Chillers Alternative
3. Well Water Alternative
4. Pumping Lake Oroville Alternative
5. Pipe Upper North Fork Feather River Water Alternative
6. Pipe Yellow Creek Water Alternative
7. Pipe Bucks Creek Powerhouse Water Alternative
8. New Reservoir Alternative
9. Enlarging Existing Reservoir Alternative
10. Vegetation Management and River Shading Alternative

Status of Ongoing Collaborative Discussions: Licensee, state and federal resource agencies, local Counties and interested stakeholders are continuing to meet to discuss water temperature alternatives. No decisions or recommendations have been made at this time. However, on November 18, 2004 Licensee made the following public statement on the thermal curtain for Lake Almanor:

***Pacific Gas and Electric Company
Statement on Thermal Curtain for Lake Almanor***

PG&E has clearly heard the community's request that PG&E comment on the prospects for a floating thermal curtain in Lake Almanor. Based on studies and information to date, PG&E does not anticipate recommending a floating thermal curtain in Lake Almanor as a reasonable control measure for reducing downstream water temperatures in the North Fork Feather River. PG&E expects to issue a report in early 2005 evaluating more than twenty potential water temperature reduction alternatives it has studied.

Studies and information to date indicate a floating thermal curtain in Lake Almanor:

- *Is technically feasible*
- *Would reduce water temperatures in the Rock Creek and Cresta reaches (approximately 23 miles downstream from Lake Almanor) 1 to 2 degrees Celsius*
- *Would reduce cold water habitat in Lake Almanor and fish production in Butt Valley Reservoir*
- *Is strongly opposed by Lake Almanor area residents*
- *Would be very costly for the benefits achieved*

The report referenced in the above Statement is being prepared as part of the requirement of Condition No. 4D for the Rock Creek – Cresta Project (FERC 1962) license.

Consolidated List of Study Report Information provided herein for FERC's December 17, 2004 A.I.R.:

- PG&E. 2004a. Upper North Fork Feather River (FERC 2105), Executive Summary Of Studies Conducted To Assess the Feasibility of Obtaining Colder Water in the North Fork Feather River, Pacific Gas and Electric Company, October 2004**
- IIHR. 2004. Lake Almanor Cold-water Feasibility Study: Hydraulic Model, IIHR Report No. 438, IIHR – Hydroscience and Engineering, The University of Iowa, Iowa City, Iowa 52242, July 2004**
- Black & Veatch. 2004. Prattville Intake Modifications, Phase 3, Feasibility Study, December 14, 2004, Black & Veatch**
- Bechtel. 2004. Upper North Fork Feather River In-stream Temperature Studies, 33 Years of Synthesized Reservoir Operations, Evaluation of Installation of Curtain and Modifications in Lake Almanor and Blending of Canyon Dam Outflows, Bechtel, DRAFT, January 2004**
- Jones and Stokes. 2004. Simulation of Temperature and Dissolved Oxygen in Lake Almanor, California, Using the CE-QUAL-W2 Water Quality Model, Jones and Stokes, March 2004**
- Thomas R. Payne and Associates. 2004a. Prattville Intake Modification and Potential Impacts to Lake Almanor Fishery Study, Thomas R. Payne and Associates, Interim Report June 2004**
- Thomas R. Payne and Associates. 2004b. Temperature-Conditioned Relative Suitability Index for the Seneca, Belden, Rock Creek, Cresta, and Poe Reaches of PG&E's North Fork Feather River Hydroelectric Projects, Thomas R. Payne and Associates, Draft Report, December 6, 2004**
- PG&E. 2004b. Rock Creek – Cresta Project FERC No. 1962, Ecological Resources Committee, Annual Report on 2003 Operation and Monitoring License Condition 22 And Annual Water Temperature Monitoring Report License Condition 4.C, Final Report, May 28, 2004**
- PG&E. 2004c. Evaluation of Additional Alternatives to Provide Cooler Water to the North Fork Feather River, Mechanical Cooling Tower Alternative, Mechanical Water Chillers Alternative, Well Water Alternative, Pumping Lake Oroville Alternative, Pipe Upper North Fork Feather River Water Alternative, Pipe Yellow Creek Water Alternative, Pipe Bucks Creek Powerhouse Water Alternative, New Reservoir Alternative, Enlarging Existing Reservoir Alternative, Vegetation Management and River Shading Alternative, Pacific Gas and Electric Company, December 2004**