

COORDINATED OPERATIONS AND HEADWATER BENEFITS AGREEMENT
AMONG
PACIFIC GAS AND ELECTRIC COMPANY,
YUBA COUNTY WATER AGENCY,
and PG&E CORPORATION

PACIFIC GAS AND ELECTRIC COMPANY ("Utility"), YUBA COUNTY WATER AGENCY, ("YCWA"), and PG&E CORPORATION, on behalf of a subsidiary to be created, sometimes referred to as "PG&E CalHydro" ("Generator"), referred to collectively as "Parties" and individually as "Party", agree as follows:

Recitals

- A. Utility and other parties are proposing a settlement ("Proposed Settlement") of A.99-09-053, pending before the California Public Utilities Commission ("CPUC"). Pursuant to the Proposed Settlement, Utility desires to transfer its hydroelectric power projects and associated water contracts and related facilities ("Hydro Projects"), including the Narrows Project (the "*Narrows Project*") (FERC No. 1403), to a subsidiary company of PG&E Corporation ("PG&E CalHydro").
- B. Utility and YCWA are parties to the Yuba County Water Agency Power Purchase Contract dated May 13, 1966 (the "*YCWA Agreement*"). Under the YCWA Agreement, YCWA constructed, owns and operates two powerhouses, known as Colgate powerhouse and Narrows 2 powerhouse, located on the Yuba River system, New Bullards Bar Reservoir on the North Fork Yuba River, the Hour House diversion on the Middle Fork Yuba River and the Log Cabin diversion on Oregon Creek. The Colgate powerhouse, the Narrows 2 powerhouse, New Bullards Bar Reservoir, the Hour House diversion and the Log Cabin diversion are collectively referred to in this Operations Agreement as the "*Yuba Project*" and are licensed by FERC as the Yuba River Development (FERC No. 2246). The Narrows Project is located downstream of YCWA's Colgate powerhouse and obtains water from Englebright Reservoir. YCWA's Narrows 2 powerhouse also obtains water directly from Englebright Reservoir.
- C. Utility and YCWA are also parties to the Yuba River Development Enhancement Agreement dated January 22, 1990 (the "*Enhancement Agreement*"). The YCWA Agreement and the Enhancement Agreement are collectively referred to in this Operations Agreement as the "*Power Purchase Agreement*."
- D. Pursuant to Utility's 1989 Application for New License for Narrows Project (FERC No. 1403), FERC approved Utility's practice of operating the Narrows Project and the Narrows 2 powerhouse as if they were a single, two-unit powerhouse in order to optimize the beneficial use of water for power production as described in such application.

- E. Utility, YCWA and Generator enter into this Coordinated Operations and Headwater Benefits Agreement ("*Operations Agreement*") in order to clearly define the operations scheduling, revenue allocations, and headwater benefits during periods before and after the end of the Power Purchase Agreement.

NOW, THEREFORE, in consideration of the representations, warranties, covenants and agreements contained in this Operations Agreement, each of the Parties agrees as follows:

Article 1 – Term

- 2.1 Term. This Operations Agreement shall become effective as of the Closing defined in the Asset Transfer Agreement between Utility and Generator for the Narrows Project, and remain in effect until the later of (a) the termination of the Power Purchase Agreement and (b) the issuance to YCWA of a new license for the Yuba Project (FERC No. 2246); unless earlier terminated by mutual consent. If FERC has not issued a new license for the Yuba Project at the termination of the Power Purchase Agreement, YCWA shall succeed to Utility's rights contained in this Operations Agreement for the remaining term of the Operations Agreement, if any, provided that YCWA is pursuing the relicensing of the Yuba Project (FERC No. 2246) diligently and in good faith in order to complete the relicensing as close to the expiration date of the present license as possible.
- 2.2 Successors and Assigns. This Operations Agreement shall be binding upon and inure to the benefit of the successors and assigns of the Parties. If the Generator sells or transfers the ownership of the Narrows Project, this Operations Agreement shall become part of any sales or transfer agreement by reference therein, and the new owner(s) shall be required under the terms of such sale or transfer agreement to assume all obligations of Generator under this Operations Agreement. This Operations Agreement shall be re-executed by Parties who are still a part to this Operations Agreement before such sale or transfer is complete.

Article 2 - Coordinated Operations

- 2.1 Shared Water Rights. Water to which Generator holds rights as part of its acquisition of the Narrows Project from Utility may be utilized from time to time for power generation through YCWA's Narrows 2 powerhouse, and water to which YCWA holds rights may be used from time to time for power generation through the Narrows Project. This optimization shall continue until YCWA and Generator both agree on terminating this Operations Agreement or a regulatory body with jurisdiction specifies different requirements for each project.
- 2.2 Regulatory Compliance. Generator shall meet the requirements of the Narrows Project FERC License and shall coordinate all water releases and flow changes with the Utility and YCWA. Generator and YCWA shall each meet their share on a pro-rata basis (based on water rights) of any restrictions or operations changes required to meet FERC license requirements in the future.

2.3 Water Release Requirements. Because of and as explicitly recognized in FERC's February 11, 1993 Order Issuing New License for the Project (the "*1993 FERC Order*"), Generator's ability to meet the FERC License conditions for the Narrows Project relating to maintenance of daily average flows for the conservation and development of fish resources in the Yuba River depends, in part, upon diversions and releases of water by YCWA through the Yuba Project. Utility, during the term of the Power Purchase Agreement, and YCWA, after the term of the Power Purchase Agreement, shall dispatch releases of water from YCWA's New Bullards Bar Reservoir and from Englebright Reservoir, at no additional cost or expense to Generator, as expressly permitted by the Power Purchase Agreement and consistent with the 1993 FERC Order, to allow for full compliance by Generator of the instream flow requirements and ramping rate requirements as described in the 1993 FERC Order; provided, that such operation does not cause a violation of any of the license conditions or other legally enforceable requirements of the Yuba Project.

2.4 Generation Water Rights. In recognition of 1) the value of generation received by the combined use of Generator's and YCWA's water through the Narrows Project and Narrows 2 powerhouses, and 2) the goal of optimizing the beneficial use of water for power production after consideration of other water resource use requirements, the Parties shall share the power generation revenues available from the Narrows Project and YCWA's Narrows 2 powerhouse according to the following procedures.

- a) During the term of the Power Purchase Agreement, the procedures shall be:
 - i. The "*deemed revenues*" of the Narrows Project and of YCWA's Narrows 2 shall be the revenues that each would have earned in the prior month if the actual energy generated hourly by each powerhouse, adjusted for transmission losses in a manner consistent with the methodology used by the ISO, had been sold into the day-ahead market for electricity trading of the California Power Exchange, a California non-profit public benefit corporation ("*Cal PX*"), or its successor. The "*combined deemed revenues*" is the sum of the deemed revenues for the Narrows Project and YCWA's Narrows 2 project.
 - ii. To determine the *combined deemed revenues*, Generator shall provide Utility with a monthly accounting of the Narrows Project's hourly generation from its ISO-certified metering within 45 days after the close of each calendar month. Utility shall calculate the *combined deemed revenues* using the generation data provided by Generator and the hourly generation of Narrows 2 from its ISO-certified metering.
 - iii. The water used for power generation at the Narrows Project and Narrows 2 shall be allocated to the Parties as follows: the first 740 cfs of the combined total flow through both powerhouses shall be allocated to Generator, and any remaining flow through both powerhouses shall be allocated to Utility (on account of YCWA's water rights).

- iv. Utility shall monthly calculate the daily share of the *combined deemed revenues* allocable to Generator and Utility. Generator's share shall be the *combined deemed revenues* for that day multiplied by 740 cfs divided by the combined total flow through both powerhouses for that day. Utility's share shall be the remainder of the day's *combined deemed revenues*.
 - v. Utility shall present a monthly statement with an invoice or check, as appropriate, to Generator within 15 days of receipt from Generator of its hourly generation data. Invoices shall be due and payable within 10 days of receipt.
 - vi. All hourly generation data from ISO-certified metering and water accounting records maintained by one Party shall be retained for at least one year and shall be made available for audit by the other Party within five business days after receipt of a written request for audit. Unless the Parties otherwise agree, such audit shall take place during normal business hours, be conducted in the offices of the audited Party and be at the sole cost and expense of the auditing Party.
- b) After the term of the Power Purchase Agreement and for the period thereafter, if any, until this Operations Agreement terminates, the procedures shall be:
- i. For each hour that the Narrows Project or YCWA's Narrows 2 powerhouse generates power, there will be a calculation that determines how much of the amount of the water flow through each powerhouses is a result of the exercise of Generator's water rights and how much is a result of the exercise of YCWA's water rights.
 - ii. The revenue received for each hour by each powerhouse will be shared by Generator and YCWA based on the percentage of water going through the powerhouse that is a result of the exercise of each Party's respective rights. For purposes of this Agreement, all generation will be assumed to be sold into the day ahead market for the Cal PX and the revenue will be equal to the product of the generation and the Cal PX price for the applicable hour.
 - iii. Within 45 days after the close of each calendar month, each Party shall provide to the other a full hourly accounting of both the generation from the powerhouse based on its ISO-certified meter and the revenues on that generation calculated as specified above. Within 30 days after this information exchange, YCWA shall calculate the share of the gross revenue from each powerhouse that is due to each Party and present a monthly statement with an invoice or check, as appropriate, to Generator. Invoices shall be due and payable within 10 days of receipt.

- iv. All hourly generation data from ISO-certified metering and water accounting records maintained by one Party shall be retained for at least one year and shall be made available for audit by the other Party within five business days after receipt of a written request for audit. Unless the Parties otherwise agree, such audit shall take place during normal business hours, be conducted in the offices of the audited Party and be at the sole cost and expense of the auditing Party.

2.5 No New Water Rights. It is expressly understood and agreed by the Parties that this revenue sharing arrangement is not intended to nor shall it create any new or additional water rights for the Narrows Project, it being the sole purpose of *Article 2.4* to acknowledge the existing water rights of Generator and YCWA.

Article 3 - Operations Planning

3.1 Operating Information. To facilitate continued coordination of YCWA's Yuba Project with the Narrows Project, Utility shall be responsible for operations planning for both the Narrows Project and the Yuba Project, consistent with terms and conditions of the Power Purchase Agreement. YCWA shall provide Generator (as well as Utility) with a copy of all information and data for the Yuba Project that Utility is entitled to receive from YCWA under the Power Purchase Agreement to the extent that such information or data are necessary for the continued coordinated operations of the Yuba Project and the Narrows Project.

3.2 Monthly Operations Plans. Utility shall provide monthly operations plans to Generator within ten business days after publication by the California Department of Water Resources of the snow surveys for the Yuba River watershed as part of the California Cooperative Snow Surveys. The operations plans for Englebright Reservoir, the Project, Narrows 2 powerhouse, and for each irrigation diversion downstream of Englebright Reservoir (as required by the 1993 FERC Order) shall include forecasts of: a) end-of-month storage, b) releases from storage for electric power generation or for re-diversion downstream, c) reservoir spill or controlled bypass releases, d) in-stream flow releases, and e) YCWA irrigation water deliveries. The monthly operations plan shall also include all planned outages of facilities for maintenance or inspections.

3.3 Scheduling Coordination. Generator shall operate the Narrows Project in accordance with schedules that shall be furnished from time to time by Utility, for impounding, release and use of water through the Narrows Project. The Parties recognize that operating information needs and timing will change over time as future operational needs evolve.

- a) Day ahead – Utility shall provide a daily operations plan for the Yuba's Narrows 2 Project and the Narrows Project to Generator by 1600 hours of the day two days preceding the operating day, *i.e.*, operating plans for operating day beginning 0001 hours on Wednesday shall be submitted by 1600 hours on the preceding Monday. The daily operations plan shall include the Narrows Project and Narrows 2 generator output

(megawatts), turbine flow (cfs), ramping, motoring, and no-load schedules, and planned ancillary services operations (e.g., automatic generation control, black start, spinning and non-spinning reserves, etc.) for each hour from 0000 hours to 2400 hours. Generator shall operate the Narrows Project in accordance with the daily operations plan.

- b) Real-time coordination - Each Party shall notify the other Parties, as soon as possible, of any deviations of actual operations from the most current daily operations plan that could reasonably be expected to have a material effect upon the other Parties' operations or could have effects on compliance with the release requirements of the FERC licenses.
- c) Annual Maintenance Outage Coordination -- Each Party shall prepare and maintain a two-year annual maintenance outage schedule for its respective facilities, which schedule shall include planned outages of its respective facilities for the period covered thereby. The Parties shall exchange outage schedules by November 30 of each year, and each Party shall forward to the other Parties schedule updates whenever such Party changes the most-recently delivered schedule.

3.4 Coordination of Maintenance and Inspection Outages. To minimize disruptions to the coordinated operations contemplated by this Operations Agreement and to obtain necessary approvals from the ISO, each Party shall notify the other Parties, at least 7 days in advance, of contemplated outage of facilities or maintenance work to be performed on its facilities that reasonably could be expected to affect electric power generation at the other Parties' facilities. Each Party shall cooperate with the other Parties in scheduling such outage or maintenance work. At the request of one of the Parties, the Party doing the work shall use Commercially Reasonable Efforts both to advance or postpone the time of any performance of the work and to perform the work so as not unnecessarily to cause power loss or inconvenience to the requesting Party. If the time of the work cannot be advanced or postponed consistent with Commercially Reasonable Efforts, the Party doing the work shall, at the request and sole expense of the requesting Party, accelerate the performance of the work to the extent possible.

3.5 Emergency Operations. Notwithstanding anything in this Operations Agreement, Generator shall have sole discretion, as necessary to respond to emergencies in order to protect property, worker or public safety, or the environment, to modify operations of the Narrows Project, and YCWA shall have sole discretion to modify operations of the Yuba Project for similar purposes. The Party taking the emergency actions shall notify the other Parties of the emergency actions taken as soon as practicable. An emergency shall be defined as: Any event or circumstance at either the Yuba Project or the Narrows Project with respect to any of the generating equipment that:(a) requires prompt action; and b) in the reasonable opinion of the operator could be expected to have an adverse effect on the project, the utility system or the utility system integrity, endanger the health or safety of any person, or cause material damage to the project.

3.6 Narrows 2 Emergencies. In case of an emergency shut down of YCWA's Narrows 2,

Generator shall, upon request of YCWA or Utility, release water through the Narrows Project or bypass water as necessary to reduce downstream fluctuations in river flows.

3.7 Access. Consistent with Generator's use for its own purposes of the existing roads, road structures and rights or way acquired from Utility, Generator shall permit YCWA to use same, without cost or expense to YCWA, on a nonexclusive basis.

3.8 Communications Interconnection. YCWA's communication system and the communications system for the Narrows Project are interconnected as follows: a) by aerial cable to Generator's Narrows 1 powerhouse; b) by microwave radio to Utility's integrated communications system; and c) with the present carrier system now terminated at YCWA's Colgate powerhouse. The Generator shall permit these systems, or equivalent new systems that have been approved by all Parties, to remain in place and continue operations throughout the term of this Operations Agreement. The Generator and YCWA shall develop and maintain an "immediate emergency communications procedure" to allow coordinated emergency communications with each other and to respond immediately to water release problems and other flow related emergencies.

Article 4 – Headwater Benefits

4.1 Headwater Benefits. Pursuant to paragraph 22 of the Power Purchase Agreement, Utility and YCWA expressly agreed that the amounts that each of them is required to pay to the other and the amounts that each of them is entitled to receive from the other thereunder take into account the upstream benefits provided by YCWA to Utility and the upstream benefits to be provided by Utility to YCWA and, therefore, neither of them is entitled to any further consideration with respect to such benefits during the term of the Power Purchase Agreement. In light of the foregoing and so long as the Power Purchase Agreement remains in effect:

- a) Generator acknowledges that payments that Utility is obligated to make to YCWA under the Power Purchase Agreement take into full consideration headwater benefits the Narrows Project receives from YCWA's upstream reservoir storage facilities and, therefore, take into account amounts payable to YCWA by Utility under Section 10(j) of the Federal Power Act. Utility currently considers the portion of such payments to YCWA for headwater benefits to the Narrows Project to be zero and, therefore, Generator is not required to reimburse, in whole or in part, Utility for such existing payments. If at any time during the remaining term of the Power Purchase Agreement and notwithstanding the amounts that Utility is contractually obligated to pay YCWA under the Power Purchase Agreement, FERC orders Utility to pay additional amounts to YCWA as a headwater benefits payment, then Generator shall reimburse Utility for all such amounts as FERC may order Utility to pay to YCWA with respect to headwater benefits to the Narrows Project. If at any time during the remaining term of the Power Purchase Agreement, FERC orders Generator to pay any amount to YCWA as a headwater benefits payment, Generator shall not be entitled to any reimbursement

or contribution from Utility for all or any portion of the amount Generator may be ordered to pay. If at any time, FERC orders YCWA to pay any amount to Generator as a headwater benefits payment, YCWA shall not be entitled to any reimbursement or contribution from Utility for all or any portion of the amount YCWA may be ordered to pay. If at any time after the term of the PPA, FERC orders YCWA to pay any amount to Generator as a headwater benefits payment, YCWA shall not be entitled to any reimbursement or contribution from Utility for all or any portion of the amount YCWA may be ordered to pay.

- b) Generator acknowledges that upon expiration of the Power Purchase Agreement and/or the FERC license for the Yuba Project (FERC No. 2246), FERC may assess a headwater benefit obligations on Generator. Generator shall be solely responsible for the payment of any such headwater benefit obligation.

Article 5 - Telemetered Data

5.1 Shared Operations and Water Telemetry. Generator shall make available to YCWA its existing water level telemetry and flow data for the Project as is reasonably necessary for coordinated operations of the Project and the Yuba Project. YCWA shall make available to Generator such water level telemetry and flow data for Narrows 2 that Utility is entitled to receive from YWCA and is reasonably necessary for coordinated operations and FERC compliance of the Project and the Yuba Project. For the purposes of this Article 5.1, “*available*” shall be defined as providing an analog and or digital output device or signals at the providing Party’s operating center for the other Party’s use.

5.2 Telemetered Hydrological, Meteorological, and Snow Pack Data. Generator shall make available to YCWA all telemetered hydrological, meteorological and snow pack data that Generator owns or controls access to that is reasonably necessary for coordinated operations of the Narrows Project and the Yuba Project. YCWA shall make available to Generator all telemetered hydrological, meteorological and snow pack data YCWA owns or controls access to that Utility is entitled to receive and is reasonably necessary for coordinated operations of the Narrows Project and the Yuba Project. For the purposes of this *Article 5.2*, “*available*” shall be defined as providing an analog or digital output device or signal at the site or, if mutually agreed to by Utility, YCWA and Generator, at the data provider’s data receiving station for the other Party’s use. No Party shall be obligated to install telemetry for the use of another Party at any of the providing Party’s sites.

5.3 Cost of Telemetered Data. Telemetered data shall be made available without cost to the other Party. The receiving Party shall be solely responsible to provide, maintain and operate the equipment necessary to transmit and display the data at its location (or locations).

Article 6 – General Provisions

6.1 Notices. All written notices shall be directed as to the addresses below.

Pacific Gas and Electric Company
Attention: Manager, Hydro Generation
77 Beale Street
San Francisco, CA 94106

Yuba County Water Agency
Attention: Engineer Administrator
1402 D Street
Marysville, CA 95901

PG&E Corporation
Attention: Senior Vice President and General Counsel
One Market Street, Spear Tower
San Francisco, California 94105

Any Party may from time to time change its address for the purpose of notices to that Party by a similar notice specifying a new address, but no such change is effective until it is actually received by the Party sought to be charged with its contents. All notices and other communications required or permitted under this Agreement which are addressed as provided in this Section 6.1 are effective upon delivery if delivered personally or by overnight mail, and are effective five (5) days following deposit in the United States mail, postage prepaid if delivered by mail.

6.2 No New Rights. Nothing contained in this Operations Agreement creates or is intended to create an association, fiduciary, partnership or joint venture relationship between, or impose any fiduciary or partnership duty, obligation or liability upon, any Party.

6.3 Changes In Writing. Changes to this Operations Agreement will not be valid unless they are in writing and signed by all of the Parties then having rights or obligations under the terms of the agreement.

6.4 Capitalization. Terms used in this Agreement and not defined herein shall have the same meaning assigned in the Asset Transfer Agreement between Utility and Generator.

6.5 Regulatory Requirements. The Parties agree that the operations of the Narrows Project and the Yuba Project will comply with the valid requirements for all agencies with jurisdiction over the projects. Nothing in this Section 6.5 shall preclude any Party from challenging any assertion of jurisdiction over either project by any agency.

6.6 Expenses. Except as otherwise provided herein, each Party is responsible for its own costs and expenses (including attorneys' and consultants' fees, costs and expenses) incurred in connection with this Operations Agreement and the consummation of the transactions contemplated by this Operations Agreement; provided, however, this provision will not alter or impact the rights and responsibilities of Utility and YCWA under the Power Purchase Agreement.

- 6.7 Entire Document. This Operations Agreement contains the entire agreement between the Parties with respect to the coordinated operations contemplated hereby, and supersede all negotiations, representations, warranties, commitments, offers, contracts and writings prior to the execution date of this Operation Agreement, written or oral. No waiver and no modification or amendment of any provision of this Operations Agreement is effective unless made in writing and duly signed by the Parties referring specifically to this Operations Agreement, and then only to the specific purpose, extent and interest so provided
- 6.8 Counterparts. This Agreement may be executed in one or more counterparts, each of which is an original, but all of which together constitute one and the same instrument.
- 6.9 Captions The captions of the various Articles, Sections, Exhibits and Schedules of this Agreement have been inserted only for convenience of reference and do not modify, explain, enlarge or restrict any of the provisions of this Agreement.
- 6.10 Governing Law. The validity, interpretation and effect of this Agreement are governed by and will be construed in accordance with the laws of the State of California applicable to contracts made and performed in such State and without regard to conflicts of law doctrines except to the extent that certain matters are preempted by Federal law or are governed by the law of the jurisdiction of organization of the respective Parties.
- 6.11 No Third Party Beneficiaries. Nothing in this Operations Agreement, whether express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any Persons other than the Parties and their respective permitted successors and assigns, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any third Persons to any Party, nor give any third Persons any right of subrogation or action against any Party.
- 6.12 No Joint Venture. Nothing contained in this Operations Agreement creates or is intended to create an association, trust, partnership, or joint venture or impose a trust or partnership duty, obligation, or liability on or with regard to any Party.
- 6.13 Construction of Agreement. Ambiguities or uncertainties in the wording of this Operations Agreement will not be construed for or against any Party, but will be construed in the manner that most accurately reflects the Parties' intent as of the date they executed this Operations Agreement. Capitalized terms used in this Operations Agreement and not defined herein shall have the same meaning assigned to them in the Asset Transfer Agreement for the Narrows Project between Utility and Generator.

IN WITNESS WHEREOF, the parties hereto have caused this Operations Agreement to be executed by their duly-authorized representatives and it is effective as of the last date set forth below.

PACIFIC GAS AND ELECTRIC COMPANY

BY: _____

(Type Name)

Title: _____

Date Signed: _____

YUBA COUNTY WATER AGENCY

BY: *Don Wilson*

DOHN WILSON

(Type Name)

Title: ENGINEER - ADMINISTRATOR

Date Signed: 8-8-00

PG&E CORPORATION

BY: _____

(Type Name)

Title: _____

Date Signed: _____

IN WITNESS WHEREOF, the parties hereto have caused this Operations Agreement to be executed by their duly-authorized representatives and it is effective as of the last date set forth below.

PACIFIC GAS AND ELECTRIC COMPANY

BY: *Gordon R. Smith*
Gordon R. Smith

(Type Name)

Title: President & CEO

Date Signed: August 8, 2000

YUBA COUNTY WATER AGENCY

BY: _____

(Type Name)

Title: _____

Date Signed: _____

PG&E CORPORATION

BY: *Gordon R. Smith*
Gordon R. Smith

(Type Name)

Title: Senior Vice President

Date Signed: August 8, 2000