Exhibit A

Project Description

EXHIBIT A: PROJECT DESCRIPTION

A.1 Description of Project Works

This section presents a description of the Kilarc-Cow Creek Hydroelectric Project (Project). The Project is located in Shasta County, California, approximately 30 miles east of the city of Redding, near the community of Whitmore. The Project consists of two developments constructed between 1903 and 1907: the Kilarc Development on Old Cow Creek (Figure A.1-1) and the Cow Creek Development on South Cow Creek (Figure A.1-2). Old Cow and South Cow creeks are part of the Cow Creek Watershed. Old Cow Creek is a tributary to South Cow Creek and South Cow Creek is a tributary to Cow Creek. Cow Creek drains to the Sacramento River.

The Kilarc and Cow Creek developments are presented separately below since they are independent and located in different watersheds. The Kilarc Development, located in the Old Cow Creek watershed, is described first, followed by the Cow Creek Development, located in the South Cow Creek watershed. The Kilarc Development diverts water from North Canyon Creek, South Canyon Creek, and Old Cow Creek. The Cow Creek Development diverts water from Mill Creek and South Cow Creek.

Water diverted for power generation is conveyed to the Kilarc and Cow Creek forebays, where penstocks direct the water to the powerhouses. Figure A.1-3 presents a schematic of Project facilities. The Project Area includes several small diversion dams, approximately 7 miles of water conveyance facilities, and two powerhouses with a total installed capacity of 5 megawatts.

Note that throughout this license surrender application, "decommissioning" refers to PG&E's Proposed Decommissioning Plan (PDP) as set forth in Appendix A. "Project facilities" includes references to both the Kilarc Development and the Cow Creek Development facilities; otherwise, the specific development will be identified.

A.1.1 Kilarc Development

Kilarc Development features include:

- North Canyon Creek Diversion Dam and Canal
- South Canyon Creek Diversion Dam and Canal
- South Canyon Creek Siphon
- Kilarc Main Canal Diversion Dam and Main Canal (including tunnels and elevated flumes)
- Kilarc Forebay Dam
- Kilarc Penstock
- Kilarc Powerhouse

- Kilarc Access Roads

A general description of the key Project components is in the following paragraphs. A description of the decommissioning of the Kilarc Development is presented in Appendix A.

North Canyon Creek Diversion Dam – Water is diverted from North Canyon Creek into the North Canyon Creek Canal at the North Canyon Creek Diversion Dam. The dam is a timber structure, 9.9 feet long by 1 foot high, with a crest elevation of 3,939.5 feet above Mean Sea Level (MSL).

North Canyon Creek Canal – The North Canyon Creek Canal is unlined; it measures 3 feet wide by 1.5 feet deep and has a total length of 0.35 mile. The capacity of the canal is 2.5 cfs, with an average grade of 0.0021 percent.

South Canyon Creek Diversion Dam – Water is diverted from South Canyon Creek into the South Canyon Creek Canal at the South Canyon Creek Diversion Dam. The dam is a concrete structure, 37.8 feet long and 3 feet high with a crest elevation of 3,893.6 feet above MSL.

South Canyon Creek Canal – The South Canyon Creek Canal has a total length of 0.74 mile with a capacity of 7.5 cubic feet per second (cfs) and an average grade of 0.0021 percent. The conduit consists of 0.71 mile of unlined canal, 4 feet wide by 2 feet deep, and 0.03 mile of flume, 2 feet wide by 1.8 feet deep.

South Canyon Creek Siphon – Water from South Canyon Creek Canal flows into South Canyon Creek Siphon, which consists of a 0.17 mile, 12-inch diameter pipe that conveys the water into the Kilarc Main Canal.

Kilarc Main Canal Diversion Dam – Water is diverted from Old Cow Creek into the Kilarc Main Canal at the Kilarc Diversion Dam. The dam is a concrete structure, 83 feet long by 8 feet high, with a crest elevation of 3,814 feet MSL.

Kilarc Main Canal – The Kilarc Main Canal has a total length of 3.65 miles, a capacity of 52 cfs, and an average grade of 0.0021 percent. The conduit consists of 2.03 miles of canal, 1.44 miles of 5.5-foot-wide by 3-foot-deep flume, and 0.18 mile of 6-foot-wide by 7-foot-high tunnel.

Kilarc Forebay Dam – The dam at Kilarc Forebay is earth-filled, and has a maximum height of 13 feet, a maximum base width of 43 feet, and a crest length of 1,419 feet at 3,782.4 feet above MSL. The spillway is 10 feet wide by 3 feet deep and has a rated capacity of 50 cfs with 1.6 feet of freeboard.[1] The intake structure has a 48-inch slide gate with a manual lift protected by a grizzly over the opening to the Kilarc Penstock.

[1] The height of the watertight portion of a structure above a given level of water in a river, lake, or other waterbody.

Kilarc Forebay – The Kilarc Forebay has a surface area of 4.5 acres and a gross and usable storage capacity of 30.4 acre feet at an elevation of 3,782.4 feet above MSL. Water surface elevation varies by approximately 1 foot during normal operations.

Kilarc Penstock – The Kilarc Penstock is 4,801 feet long. It is constructed of riveted steel with a diameter that varies from 36 to 48 inches, and a plate thickness varying from 0.19 to 0.25 inches. The maximum flow capacity is 43 cfs.

Kilarc Powerhouse – The Kilarc Powerhouse is a 65-foot-wide by 40-foot-long steel frame structure (plan dimensions), constructed between 1903 and 1904 and composed of rubble masonry walls and a corrugated iron roof. The powerhouse contains two 3,000-horsepower Pelton single jet horizontal impulse turbines. Each turbine operates at a speed of 300 revolutions per minute (rpm) under a normal maximum gross head of 1,192 feet.

The Kilarc Powerhouse contains two Westinghouse synchronous generators rated at 1,500 and 1,730 kilowatts, respectively, producing 3-phase, 60-hertz alternating current at 2,200 and 2,300 volts, respectively. The plant also contains two solid-state, Marathon Electron Series 431OA, 160-ampere, 125-volt direct current exciters. (Note: These have been removed from service.)

The powerhouse includes a 4,500-kilovolt-ampere transformer bank, which increases voltage from about 2,200 volts to 66,000 volts. The bank consists of one oil-immersed, air-cooled, three-phase, outdoor-type transformer. Each generator (described above) is connected to the 2,300-volt bus through an air-circuit breaker and manually operated disconnect switch. A 60-kilovolt sulfur hexafluoride circuit breaker and manually operated 60-kilovolt disconnect switch are provided for connection to the outgoing transmission line. PG&E's interconnected transmission system passes through the powerhouse switchyard via a 70-foot-long, 60-kilovolt transmission line tap.

Kilarc Access Roads – The Kilarc Development is accessed from Fern Road East via Whitmore Road. A junction connecting to Whitmore Road lies approximately 30 miles east of Redding along State Route (SR) 44. PG&E uses Miller Mountain Road, an unpaved road off Fern Road East, to access the Kilarc Forebay. Miller Mountain Road also connects with several unpaved roads that provide access to the Kilarc Main Canal Diversion Dam and Kilarc Main Canal. Access to the North and South Canyon portion of the Kilarc Development from Fern Road is via Oak Run Fern Road to Smith Road.

A.1.2 Cow Creek Development

Cow Creek Development features includes:

- Mill Creek Diversion Dam
- Mill Creek-South Cow Creek Canal
- South Cow Creek Diversion Dam and Main Canal
- Cow Creek Forebay Dam

- Cow Creek Forebay Dam and Forebay
- Cow Creek Penstock
- Cow Creek Powerhouse
- Cow Creek Access Roads

A general description of the key Project components is in the following paragraphs. A description of the decommissioning of the South Cow Creek Development is presented in Appendix A.

Mill Creek Diversion Dam – Water is diverted from Mill Creek into the Mill Creek-South Cow Creek Canal at the Mill Creek Diversion Dam. The dam is a concrete structure, 40.3 feet long and 2.5 feet high, with a crest elevation of 1,575.8 feet above MSL.

Mill Creek-South Cow Creek Canal – The Mill Creek-South Cow Creek Canal is unlined, with a 5-foot-long by 3.3-foot-deep cross section. It has a total length of 0.17 mile, a capacity of 10 cfs, and an average grade of 0.0021 percent.

South Cow Creek Diversion Dam – Water is diverted from South Cow Creek into the South Cow Creek Main Canal at the South Cow Creek Diversion Dam. The dam is a concrete-capped steel bin wall and rock fill dam, 86.5 feet long by 16 feet high, with a crest elevation of 1,561.4 feet above MSL.

South Cow Creek Main Canal – The South Cow Creek Main Canal has a total length of 2.1 miles with a capacity of 50 cfs and an average grade of 0.0015 percent. The conduit consists of 2.1 miles of 13-foot-long by 4.8-foot-deep canal, and 0.04 mile of 6-foot-long by 6.8-foot-tall tunnel.

Cow Creek Forebay Dam – The Cow Creek Forebay Dam is earth-filled and has a maximum height of 16 feet, a maximum base of 54 feet, and a crest length of 653 feet at an elevation of 1,538.9 feet above MSL. The spillway is 49.7 feet wide by 1.7 feet deep, and has a rated capacity of 50 cfs with 1.2 feet of freeboard. The intake structure has a 42-inch slide gate, hydraulically operated and protected by a grizzly.

Cow Creek Forebay – The Cow Creek Forebay has a surface area of 1.0 acre and a gross and useable storage capacity of 5.4 acre feet, at an elevation of 1,537.2 feet above MSL. Water surface elevation varies by approximately 1 foot during normal operations.

Cow Creek Penstock – The Cow Creek Penstock is 4,487 feet long and was built in 1907. Beginning at the upstream end, the first 15 feet of penstock consist of 0.19-inch thick steel pipe, with a diameter that tapers from 42 to 36 inches. The next 766 feet consist of 36-inch diameter, 0.5-inch welded steel pipe. The final 3,706 feet are made of riveted steel with a 30-inch diameter and plate thickness that varies from 0.19 to 0.44 inches. It includes a short, tapered section.

Cow Creek Powerhouse – The Cow Creek Powerhouse is an approximately 53.5-foot-long by 35-foot-wide steel truss structure (plan dimensions). It has cut stone walls and a corrugated iron roof. The powerhouse contains two 1,500 horse power Pelton single jet overhung impulse turbines. Each turbine operates at a speed of 400 rpm under a design gross head of 715 feet.

The powerhouse contains two 900-kilovolt-ampere General Electric synchronous generators. At a 0.8 power factor, each generator produces 3-phase, 60-hertz alternating current at 2,300 volts. One 40-kilowatt, 125-volt, belt-driven exciter is connected to each of the generators.

The powerhouse includes a single 2,000-kilovolt-ampere transformer which increases the voltage output to 66,000 volts. The transformer is a 3-phase, oil-immersed, self-cooled, outdoor unit. Each generator (described above) is connected to the 2,300-volt bus through an air-circuit breaker and manually operated disconnect switch. A 60-kilovolt oil-circuit breaker and a 60-kilovolt disconnect switch are provided for the outgoing transmission line.

Cow Creek Access Roads – The Cow Creek Development is accessed from the southwest on SR 44 via South Cow Creek Road. South Cow Creek Road connects with SR 44 approximately 35 miles east of Redding. South Cow Creek Road is gated at the pavement terminus, and the unpaved road continues to the Cow Creek Powerhouse. The unpaved road also leads from the Cow Creek Powerhouse to the Cow Creek Forebay and South Cow Creek Diversion Dam via unpaved spur roads. The South Cow Creek Diversion Dam and Cow Creek Forebay can also be reached from the northeast through gates off of South Cow Creek Road. South Cow Creek Road intersects Whitmore Road approximately two miles east of Whitmore. Since South Cow Creek Road is gated on the southwest and northeast of the Project, the Cow Creek Development is inaccessible to the public.

A.2 Lands of the United States

A total of 187.13 acres of land lie within the Project Boundary lines. Of this total, 18.86 acres are patented lands subject to Section 24 of the Federal Power Act (FPA), 1.79 acres are held in trust by the United States under the jurisdiction of the Bureau of Indian Affairs for which PG&E has acquired rights for Project purposes, 117.36 acres are PG&E-owned lands, and 49.12 acres are privately owned lands, for which the PG&E has acquired all rights necessary for Project purposes.

A.3 Proposed Decommissioning Plan

PG&E is proposing to surrender its current operating license for the Project and decommission and remove the Project facilities. Through a consultation process with Interested Parties including agencies, non-governmental organizations, and members of the general public, PG&E has developed a PDP (Appendix A) that balances the resource considerations related to the Project.

The PDP details the proposed disposition of each project feature. The PDP was developed with two main objectives: (1) to achieve specific "Desired Conditions" once decommissioning is

completed (see discussion below); and (2) to address potential resource issues associated with decommissioning the Project features.

In general, most facilities are proposed for removal, as follows.

- Diversion dams would be removed to stop water diversions and to allow for free passage of fish.
- Dam abutments may be left in place to protect stream banks.
- Powerhouses structures will be secured and left in place during decommissioning, an option for future re-use of structures would be preserved
- Electric generators, turbines and other equipment would be removed.
- Forebays would be graded and filled.
- In consultation with affected landowners, canal segments would be left in place, breached, or filled. Flumes would be removed.

The Project Agreement (described in the Initial Statement, Application for Surrender of License) itself contains an attachment listing "Desired Conditions," in 17 areas of performance for decommissioning the Kilarc-Cow Creek Project. Some of these address specific Project features (e.g., diversion structures, canals, spillways, etc.) or activities (e.g., deconstruction). Others address process, permitting, and cost objectives.

As noted, PG&E considered these Desired Conditions in developing its PDP for the Project features. PG&E also identified potential resource issues associated with decommissioning Project features and addresses those issues in its PDP. The Desired Conditions are discussed below by Project feature. Exhibit E.4 provides a summary of these Desired Conditions organized by environmental and cultural resources, and linked to proposed protection, mitigation and enhancement (PM&E) measures.

- Diversion Structures. With respect to the disposition of diversion structures, PG&E considered the following Desired Conditions: (1) safe, timely and effective fish passage both upstream and downstream of the diversion; (2) a geomorphically stable stream channel above, below and at the diversions; (3) retention of as much spawning gravel as possible in active channels during deconstruction activities consistent with the preceding (2) desired condition; (4) addressing safety issues for both the public and wildlife; and (5) future safety and liability issues for involved private land owners..

- Canals and Spillways. With respect to the disposition of canals and spillways (including waterways, tunnels and flumes), PG&E considered the following Desired Conditions: (1) stable drainage of runoff to natural waterways, including safe, timely and effective fish passage; maintaining good water quality; and preventing contributions of sediment to drainages and streams; (2) preservation of riparian habitat during and after deconstruction wherever possible; (3) maintaining floodplain connectivity; (4) addressing safety issues for both the public and wildlife; and (5) appropriate fish and wildlife rescue.

- Forebays. With respect to the disposition of forebays, PG&E considered the following Desired Conditions: (1) maintain geomorphically stable sediment conditions; and (2) conduct appropriate fish and wildlife rescue and/or salvage prior to deconstruction activities.

- Penstocks. With respect to penstocks, PG&E's considered the following Desired Condition: to address safety issues for both the public and wildlife.

- Powerhouses. With respect to the powerhouses, PG&E's considered the following Desired Conditions: to (1) address safety issues for both the public and wildlife; (2) preserve historical and/or cultural values; and (3) preserve options for future reuse of structures.

- Access Roads. With respect to the roads and access routes, PG&E considered the following Desired Condition: to minimize sediment by implementing best management practices for retiring roads where possible.

- Deconstruction Activities. With respect to general decommissioning activities, PG&E considered the following Desired Conditions: to (1) where practicable, prevent net loss in the health of riparian and aquatic habitat areas; (2) allow for natural revegetation; (3) schedule decommissioning activities to avoid adverse effects on fish and wildlife; (4) ensure minimal water quality impairment during deconstruction and immediately thereafter, including minimizing turbidity and deposition of settleable and suspended solids; and (5) conduct appropriate fish and wildlife rescue and/or salvage prior to deconstruction activities.

Exhibit B

Project Operations and Resource Utilization

EXHIBIT B: PROJECT OPERATIONS AND RESOURCE UTILIZATION

B.1 Project Operation

Kilarc Powerhouse is supplied with water diverted from North Canyon Creek, South Canyon Creek, and Old Cow Creek. Cow Creek Powerhouse is supplied with water diverted from Mill Creek and South Cow Creek. The Project is located in two separate drainage areas: Old Cow Creek (Kilarc Powerhouse) and South Cow Creek (Cow Creek Powerhouse).

A list of Project facilities is provided in Exhibit A, Project Description. Project operations are summarized below.

B.1.1 Kilarc Operation

The Kilarc development operates as a run-of-river facility. The Old Cow Creek watershed encompasses approximately 80 square miles, including 25 square miles located upstream from the Kilarc Diversion Dam. The average yearly runoff at the dam is 48,900 acre-feet, about 55 percent of which is diverted to the Kilarc Powerhouse.

The North Canyon Creek Canal diverts water from North Canyon Creek to South Canyon Creek. Water from South Canyon Creek is diverted to South Canyon Creek Canal, which enters Canyon Creek Siphon and then the Kilarc Main Canal. Water from Old Cow Creek is also diverted to the Kilarc Main Canal which flows to Kilarc Forebay. From Kilarc Forebay, water flows through the penstock to Kilarc Powerhouse; water is returned to Old Cow Creek near the powerhouse.

The Kilarc Powerhouse is designed for semi-automatic operation with forebay level control. The powerhouse operates unattended with alarms connected to the Pit 3 Powerhouse.

Water is delivered into the Kilarc Forebay by a canal system where it then travels to the head of the penstock (described in Exhibit A, Project Description). The spillway at Kilarc Forebay is rated for 50 cubic feet per second (cfs), which is Kilarc Main Canal's approximate capacity. Kilarc Forebay has a gross and useable storage capacity of 30.4 acre-feet. Normal water level fluctuation is about 1 foot. The current minimum flow requirement at the Kilarc Diversion Dam is 3.0 cfs.

B.1.2 Cow Creek Operation

The Cow Creek Development operates as a run-of-river facility.[1] The South Cow Creek watershed encompasses approximately 78 square miles, including 53 square miles located

[1] A type of hydrolelectric generation whereby the natural flow and elevation drop of a river is used to produce electricity. Power stations of this type are built on rivers with a consistent and steady flow, either natural or through the use of a large reservoir at the head of the river.

upstream from the South Cow Creek Diversion Dam. The average annual runoff at the dam is 79,500 acre-feet, about 37 percent of which is diverted to Cow Creek Powerhouse.

The Mill Creek-South Cow Creek Canal conveys diverted water from Mill Creek into South Cow Creek. From South Cow Creek, the water is diverted into the South Cow Creek Main Canal and into the Cow Creek Forebay. From Cow Creek Forebay, water flows through the penstock to Cow Creek Powerhouse, into Hooten Gulch, and back into South Cow Creek.

The Cow Creek Powerhouse is designed for semi-automatic operation, with forebay level control. It operates unattended, with alarms connected to the Pit 3 Powerhouse.

Water is delivered into the Cow Creek Forebay by a canal system where it then travels to the head of the penstock (described in Exhibit A). The spillway at Cow Creek Forebay is rated for 50 cfs, which is South Cow Creek Main Canal's approximate capacity. Cow Creek Forebay has a gross and useable storage capacity of 5.4 acre-feet. Normal water level fluctuation is about 1 foot. The current minimum flow requirements are 4.0 cfs under normal water year criteria, and 2.0 cfs under dry water year criteria.

B.2 Capacity and Average Annual Energy Production

The Project, including both the Kilarc and the Cow Creek developments, has a total installed capacity of 5 megawatts and an estimated dependable capacity of 1.6 megawatts. Annual energy production for two developments averaged 31.1 million kilowatt hours over the 25-year period from 1977 to 2001.

Dependable capacity is the load carrying ability of a hydroelectric plant under adverse hydrologic conditions for the specified time interval and period of a particular electric system load. The Project dependable capacity is based on the Project's load carrying ability during the critical hydrologic period (e.g., 1977) coincident with PG&E's peak electric system load. Currently, the peak system load occurs during summer heat storms, typically in July or August in PG&E's service territory.

B.2.1 Kilarc Average Annual Energy Production

The Kilarc Powerhouse contains two Westinghouse synchronous generators rated at 1,500 and 1,730 kilowatts, and supplies base load energy to the grid. The estimated dependable capacity of the Kilarc Powerhouse is about 1.2 megawatt and the average annual energy generated over the 25 year period 1977 to 2001 was 19.1 million kilowatt hours. The average annual plant factor for this run-of-river powerhouse is 68 percent.

B.2.2 Cow Creek Average Annual Energy Production

The Cow Creek Powerhouse contains two 900 kilovolt amperes General Electric™ synchronous generators, and supplies base load energy to the grid. The estimated dependable generating capacity of the Cow Creek development is approximately 400 kilowatts, and the estimated

average annual energy generated over the 25 year period 1977 to 2001 was 12 million kilowatt hours. The average annual plant factor for this run-of-river powerhouse is 76 percent.

B.3 Power Utilization

PG&E historically used Project power to meet the needs of its electric customers. In addition to being an electricity resource, the Project is an "eligible renewable energy resource" per California's Renewables Portfolio Standard (RPS), which was adopted by the state of California in 2002 and requires that an electrical corporation increase its total procurement of eligible renewable energy resources by at least an additional 1 percent of retail sales per year so that 20 percent of its retail sales are procured from eligible energy resources no later than December 31, 2010. In order to replace the reduced power production of the Project, another source of renewable electrical energy would need to be obtained.

In July 2007, the California Energy Commission (CEC) released "California Energy Demand 2008-2018, Staff Draft Forecast (Staff Draft Report CEC-200-2007-015SD)." Table B.3-1 from this report shows PG&E Planning area electricity consumption. Peak load is forecast to increase about 1.3 percent per year over the next ten years (Table B.3-2).

Although the Project is an air-emission-free, RPS-eligible renewable energy resource, it is no longer needed to meet the electricity needs of PG&E's electricity consumers since lower-cost, air-emission-free, RPS-eligible renewable energy is forecast to be available to replace it.

B.4 Proposed Project Operation

PG&E proposes to discontinue operating the Project in accordance with the "Licensee's Proposed Decommissioning Plan" (Appendix A).

Table B.3-1. PG&E Planning Area Forecast Comparison

	Consumption (GWH)			Peak (MW)		
	CED 2006	**Staff Draft**	**Percent Difference Staff Draft / CED 2006**	**CED 2006**	**Staff Draft**	**Percent Difference Staff Draft / CED 2006**
1990	86,806	86,803	0.00%	17,039	17,013	-0.15%
2000	101,528	101,334	-0.19%	20,698	20,666	-0.16%
2005	102,746	102,070	-0.66%	21,162	21,354	0.90%
2008	107,366	108,918	1.45%	22,142	23,424	5.79%
2013	114,863	116,668	1.57%	23,761	25,032	5.35%
2016	118,390	120,942	2.16%	24,600	25,981	5.61%

Notes: Historical values are shaded

CED = California energy demand

GWH = gigawatt-hour

MW = megawatt

Table B.3-2. Annual Average Growth Rates

	Consumption (GWH)		Peak (MW)	
	CED 2006	**Staff Draft**	**CED 2006**	**Staff Draft**
1990-2000	1.58%	1.56%	1.96%	1.96%
2000-2005	0.24%	0.14%	0.44%	0.66%
2005-2008	1.48%	2.19%	1.52%	3.13%
2008-2016	1.23%	1.32%	1.32%	1.30%

CED = California energy demand

GWH = gigawatt-hour

MW = megawatt

Exhibit C

Project History and Proposed Decommissioning Schedule

EXHIBIT C: PROJECT HISTORY AND PROPOSED DECOMMISSIONING SCHEDULE

C.1 Construction History

The history of the Kilarc-Cow Creek Hydroelectric Project began with the Northern California Power Company (NCPC).

NCPC began construction of Kilarc Powerhouse in 1903 and completed construction in 1904. In this same time span, the NCPC also constructed Kilarc Main Canal, Kilarc Penstock, Kilarc Forebay. From May through July 1907, NCPC added the North Canyon Creek and South Canyon Creek Canals to the system.

Northern Light and Power Company (NLPC) began construction on the Cow Creek Development in 1905. Cow Creek Powerhouse was completed in September 1907, along with Cow Creek Forebay, Cow Creek Penstock, South Cow Creek Main Canal, Mill Creek-South Cow Creek Canal, and a 60-kilovolt wood pole line from Cow Creek to Palo Cedro.

NCPC acquired the Cow Creek Development on February 1, 1912 from the Sacramento Valley Power Company, which in turn had acquired the system from NLPC.

Pacific Gas and Electric (PG&E) acquired the NCPC in 1919. PG&E has since operated and maintained the Project.

Following is an overview of principal changes of the Project works since original construction:

- 1928: Reconstructed the upper portion of the Cow Creek Penstock and intake structure.
- 1930: February 22, converted Cow Creek Powerhouse to semi-automatic operation. (Note: semi-automatic operation is when a powerhouse will shutdown automatically due to protection devices, but must be started manually.)
- 1958: August 3, converted Kilarc Powerhouse to semiautomatic operation.
- 1989: South Cow Creek Diversion Dam replaced
- 1990s: Remaining Kilarc Main Canals wooden flumes replaced with steel flumes.

C.2 Proposed Schedule for Decommissioning

Study results and a revised PDP are included in this Preliminary Draft License Surrender Application. After a 60-day public comment period, PG&E will finalize the LSA and file it with FERC in March 2009.

Upon acceptance of the Final License Surrender Application (FLSA), FERC will undertake an Environmental Assessment (EA) in compliance with the National Environmental Policy Act

(NEPA) and will consult with federal and state resource agencies under the federal Endangered Species Act (ESA).

The California State Water Resources Control Board (State Water Board) may initiate a California Environmental Quality Act (CEQA) review prior to issuing a Water Quality Certification for the decommissioning activities pursuant to Section 401 of the Clean Water Act (CWA).

PG&E anticipates that the FERC EA, federal and state consultations, and State Water Board CEQA process will be completed within six months to two years after PG&E files its final LSA. PG&E expects that FERC will issue an Order granting PG&E's LSA between 2009 and 2011.

Based on this Order, PG&E will develop a detailed engineering plan and management plans for removal of the Project facilities. PG&E anticipates commencing decommissioning activities between 2010 and 2013.

After FERC approves these plans and PG&E obtains any other required permits, it is expected that removal of the Project facilities will take three years, followed by two to five years of maintenance and monitoring of the site restoration work.

Table C.2-1 below presents the current forecast range of dates between which decommissioning activities will take place. The range of dates may change as the schedule proceeds.

Table C.2-1. Decommissioning Activities

Description of Decommissioning Activity	Forecast Range of Dates	
	Start	End
PG&E files final LSA with FERC	03/2009	–
FERC prepares EA report SWRCB prepares CEQA report	03/2009	09/2009 to 03/2011
FERC issues order to decommission	12/2009 to 06/2011	–
PG&E develops detailed engineering plans PG&E develops detailed management plans PG&E obtains permits for decommissioning	12/2009 to 06/2011	06/2010 to 06/2013
PG&E decommissions Project	06/2010 to 06/2013	06/2013 to 06/2016
PG&E conducts post-decommissioning monitoring	06/2014 to 06/2016	06/2019 to 06/2021
FERC approves decommissioning	06/2019 to 06/2021	–

Exhibit D

Statement of Project Cost and Financing

EXHIBIT D: STATEMENT OF PROJECT COST AND FINANCING

D.1 Original Cost of Project Facilities

This is not an application for an initial license. Therefore, a statement of the original cost of Project land or water rights, structures, or facilities is not applicable.

D.2 Amount Payable in the Event of Project Takeover

In the event the Project is taken over by the federal government at the end of the license term, pursuant to Section 14 of the Federal Power Act, Pacific Gas and Electric (PG&E) would be entitled to receive its net investment plus severance damages. It is difficult to assess the impact of a takeover. The net impact would depend on how PG&E is compensated for the cost of replacing the Project power and reliability features, and other costs incurred by reason of severance from PG&E's system.

The amount payable to PG&E in the event of a federal takeover, as provided in Section 14 of the Federal Power Act, includes the net investment, not to exceed fair value. Some of the principles bearing upon the final determination of fair value are yet to be ascertained. There are, however, some basic figures as to which there should be no substantial dispute. The net book value, which is the historical cost less accumulated depreciation, is estimated to be about $5 million.

The definition of “fair value” means the market value of the Project, or the net investment plus severance damages. An estimate of the Project’s market value has not been made due to the uncertainty in the energy generation market in California. Under the second “fair value” interpretation, PG&E would be entitled to receive severance damages in addition to its net investment as provided in Section 14 of the Federal Power Act. Here again, applicable principles are uncertain. It would appear that such damages should include, among other things, payments for costs incurred in providing new facilities to continue service, payment for additional costs of generation, and payment for diminution of value to the rest of PG&E’s system. Due to the uncertainty in the generation market in California, an estimate of severance damages has not been made.

D.3 Estimated Decommissioning Cost

The preliminary estimated cost for decommissioning the Project is $14.5 million. This figure includes costs associated with the preparation and filing of the Draft LSA, actual removal costs, and post-decommissioning monitoring costs. This preliminary estimate is based on an assumed scope of work with contingency to address uncertainty. These costs are expected to change as the decommissioning plan is refined.

D.4 Estimated Annual Average Cost of the Project

Once the Project is decommissioned and electricity production ceases, PG&E will purchase replacement power from the market. The alternative sources of power currently available to PG&E include increased purchases of replacement power and new generation developments. Since the Project powerhouses are considered "renewable" small hydroelectric facilities under California state law,[1] any reduced power production of the Project would need to be replaced by another source of renewable electrical energy. The California Public Utilities Commission (CPUC) periodically publishes "Market Price Referents" (MPRs) which is an estimation of the long-term market price of electricity for baseload and peaking power products that will be used in evaluating bid products received during RPS power solicitations. The MPRs represent "the levelized price at which the proxy power plant revenues exactly equal the expected proxy power plant costs on a net-present value (NPV) basis."[2] As a reference, the 20-year levelized 2009 MPR[3] is estimated to be $0.096 per kilowatt hour.

D.5 Sources of Financing

PG&E is currently financially able to decommission the Project. In support of this statement, PG&E refers to its financial statements submitted annually to the Commission in FERC Form 1, and to its record in constructing, operating, and maintaining projects.

[1] California Public Utilities Code Section 399.12(b)(1)(A).
[2] D.04-06-015, p.6.
[3] CPUC adopted 2007 Market Price Referent dated Oct 4, 2007.