

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



December 1, 2011

Advice Letter 3932-E

Brian K. Cherry
Vice President, Regulation and Rates
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

**Subject: Request for Approval of a Disbursement of Funds from the
Humboldt Bay Power Plant Unit 3 Nuclear Decommissioning
Trusts**

Dear Mr. Cherry:

Advice Letter 3932-E is effective November 21, 2011.

Sincerely,

A handwritten signature in cursive script that reads "Edward F. Randolph".

Edward F. Randolph, Director
Energy Division



October 20, 2011

Advice 3932-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Request for Approval of a Disbursement of Funds from the Humboldt Bay Power Plant Unit 3 Nuclear Decommissioning Trusts

Purpose

Pacific Gas and Electric Company (PG&E) hereby submits its updated schedule of anticipated disbursement requests from the Humboldt Bay Unit 3 Nuclear Decommissioning Master Trusts (Trusts) to fund decommissioning activities at Humboldt Bay Power Plant Unit 3 (HBPP Unit 3) for the remainder of calendar year 2011 and for January 2012 through December 2013. Total expected expenditures through December 2013 are \$190.6 million.

Through this advice letter, PG&E requests approval of a disbursement of up to \$12 million for planned expenditures through the remainder of 2011 and up to \$93.1 million for planned expenditures through 2012. PG&E will request approval of the disbursement of the remaining amounts in future Advice Letter filings. PG&E is identifying the total planned withdrawals through 2013 now because 2013 marks the completion of the major component removal phase at HBPP Unit 3.

PG&E has collected revenues to fund the decommissioning Trusts, and drawing upon the Trusts for these activities will not result in any rate change, cause the withdrawal of service, or conflict with any rate schedule or rule.

Background

HBPP Unit 3 is a 65 megawatt boiling water reactor that began commercial operation in 1963, ceased operation in 1976, and was placed in the SAFSTOR custodial mode in 1988 to await final decommissioning. In Decision D.03-10-014, the California Public Utilities Commission (CPUC or the Commission) approved a decommissioning plan to commence decommissioning HBPP Unit 3 in 2006 (later extended to 2009).

The Trusts were established in D.85-12-022, to allow PG&E “to recover from its ratepayers the cost of decommissioning the prudently constructed plant at

Humboldt Bay Power Plant Unit 3.” Funds for the Trusts were collected from PG&E’s ratepayers from 1988 through 1991 per D.85-12-022, and from 2003 through 2009 per CPUC D.03-020-014 and D.07-01-003; and are now being collected through D.10-07-047, which approved PG&E’s 2009 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) Application. As of June 30, 2011, the Trusts had a liquidation value of \$291.8 million, a market value of \$301.4 million, and an expense equivalent liquidated value of \$317.1 million.¹ \$190.6 million represents approximately 60 percent of the total expense equivalent liquidated value.

The Commission previously authorized Trust disbursements to fund preparatory activities in anticipation of the decommissioning of HBPP Unit 3. In Resolution E-4258, the Commission approved PG&E’s request for authorization to access the Trusts for Interim Disbursements (as defined in the Trusts Agreements) to fund decommissioning activities. Resolution E-4258 further directed that PG&E continue to seek specific disbursements through Advice Letter filings. In D.11-07-003, the Commission specified the information to be included in future filings.

In Advice Letter 3649-E PG&E identified \$119.9 million in anticipated Trust disbursements to fund activities from May 2010 through December 2011. In response to a request from the Energy Division, PG&E submitted a supplement to Advice Letter 3649-E which reduced the requested disbursement authorization to \$90.5 million.² PG&E stated in Advice Letter 3649-E-A that the difference between that amount and the \$119.9 million requested in Advice Letter 3649-E arises out of the acceleration of decommissioning scopes of work from 2011/2012 into 2010/2011, and that PG&E would seek the remainder through future advice letter authorization requests. The \$12 million for 2011 requested in this Advice Letter is intended to fund the remainder of the activities identified in Advice Letter 3649-E to be completed in 2011. As shown in Attachment 1, this amount will result in total authorized disbursements through 2011 equaling the estimate (\$262 million) identified in the TLG Decommissioning Cost Estimate approved in D.10-07-047.

The additional \$178.6 million identified in this filing is intended to fund the following specific tasks: 1) Operation and maintenance of the Independent Spent Fuel Storage Installation (ISFSI) \$8.2 million (\$4.0 million in 2012 and \$4.2 million in 2013); 2) Reactor Vessel Removal \$28.7 million (\$19.7 million in 2012 and \$9.0 million in 2013); 3) Purchase tools, equipment, & health physics supplies \$5.7 million (\$3.3 million in 2012 and \$2.4 million in 2013); 4) Field work and site infrastructure \$24.5 million (\$11.9 million in 2012 and \$12.6 million in 2013); 5)

¹ The liquidation value of the trusts reflects the amount available, after taxes, to pay for nuclear decommissioning projects.

² Advice Letter 3649-E-A was authorized effective as of May 21, 2010.

Decommissioning labor expenses including specialty consultants \$61.2 million (\$32.2 million through 2012 and \$29.1 million in 2013); 6) Packaging, transporting, and disposal of waste \$27.7 million (\$14.2 million in 2012 and \$13.5 million in 2013); and 7) Prepare buildings for decontamination and demolition of structures, \$22.6 million (\$7.8 million in 2012 and \$14.8 million in 2013). As stated above, PG&E is requesting authorization at this time to withdraw up to \$93.1 million to fund anticipated decommissioning activities in 2012.

These activities were included in the TLG Decommissioning Cost Estimate approved in D.10-07-047. They are distinct from the operations and maintenance activities performed under SAFSTOR, and consistent with prior Commission decisions. PG&E is not requesting any funding for SAFSTOR through this Advice Letter.

In accordance with D.11-07-003, PG&E is providing the following additional information:

Attachment 1 – Graph tracking NDCTP forecast and actual decommissioning expenditures

Attachment 2 – Description of planned scopes of work

Attachment 3 – Summary of previous Advice Letter approvals and Trust withdrawals and anticipated disbursements

Attachment 4 – Correlation of budget categories to TLG Decommissioning Cost Estimate

As with previously approved disbursements from the Trusts, PG&E will maintain separate accounting to record costs of these activities, and the related transactions with the Trusts, to permit cost monitoring. In accordance with Ordering Paragraph 2 of Resolution E-4268, PG&E will seek disbursement from the Trusts for activities granted herein only after PG&E has incurred and paid the costs for the activities, or through the advance withdrawal procedures authorized in Section 2.01(5) of the Trusts. To date, PG&E has not utilized these advance withdrawal procedures; instead, on a periodic basis, PG&E requests withdrawals from the Trusts for the costs of internal services and vendors actually paid. Actual expenditures will be reviewed after completion in subsequent NDCTPs.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than **November 9, 2011**, which is 20 days from the date of this filing. Protests should be mailed to:

CPUC Energy Division
Tariff Files, Room 4005
DMS Branch
505 Van Ness Avenue
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: jnj@cpuc.ca.gov and mas@cpuc.ca.gov

Copies also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest also should be sent via U.S. Mail (and by facsimile and electronically, if possible) to PG&E at the address shown below on the same date it is mailed or delivered to the Commission:

Brian K. Cherry
Vice President, Regulation and Rates
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-6520
E-mail: PGETariffs@pge.com

Effective Date

PG&E requests that this Tier 2 advice filing become effective upon regular notice, **November 21, 2011**.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the service list for the 2009 Nuclear Decommissioning Cost Triennial Proceeding. Address changes to the General Order 96-B service list and all

electronic approvals should be directed to e-mail PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Advice letter filings can also be accessed electronically at <http://www.pge.com/tariffs/>.

A handwritten signature in black ink that reads "Brian Cherry" followed by a stylized flourish.

Vice President – Regulation and Rates

cc: Service List A.09-04-007

Attachments

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39 M)**

Utility type:

ELC GAS
 PLC HEAT WATER

Contact Person: Greg Backens

Phone #: 415-973-4390

E-mail: gab4@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas
 PLC = Pipeline HEAT = Heat WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **3932-E**

Tier: 2

Subject of AL: **Request for Approval of a Disbursement of Funds from the Humboldt Bay Power Plant Unit 3 Nuclear Decommissioning Trusts**

Keywords (choose from CPUC listing): Nuclear

AL filing type: Monthly Quarterly Annual One-Time Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: N/A

Does AL replace a withdrawn or rejected AL? No. If so, identify the prior AL: N/A

Summarize differences between the AL and the prior withdrawn or rejected AL: N/A

Is AL requesting confidential treatment? No. If so, what information is the utility seeking confidential treatment for: N/A

Confidential information will be made available to those who have executed a nondisclosure agreement: N/A

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: N/A

Resolution Required? Yes No

Requested effective date: November 21, 2011

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed: N/A

Protests, dispositions, and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division

Tariff Files, Room 4005

DMS Branch

505 Van Ness Ave., San Francisco, CA 94102

jnj@cpuc.ca.gov and mas@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Brian K. Cherry, Vice President, Regulation and Rates

77 Beale Street, Mail Code B10C

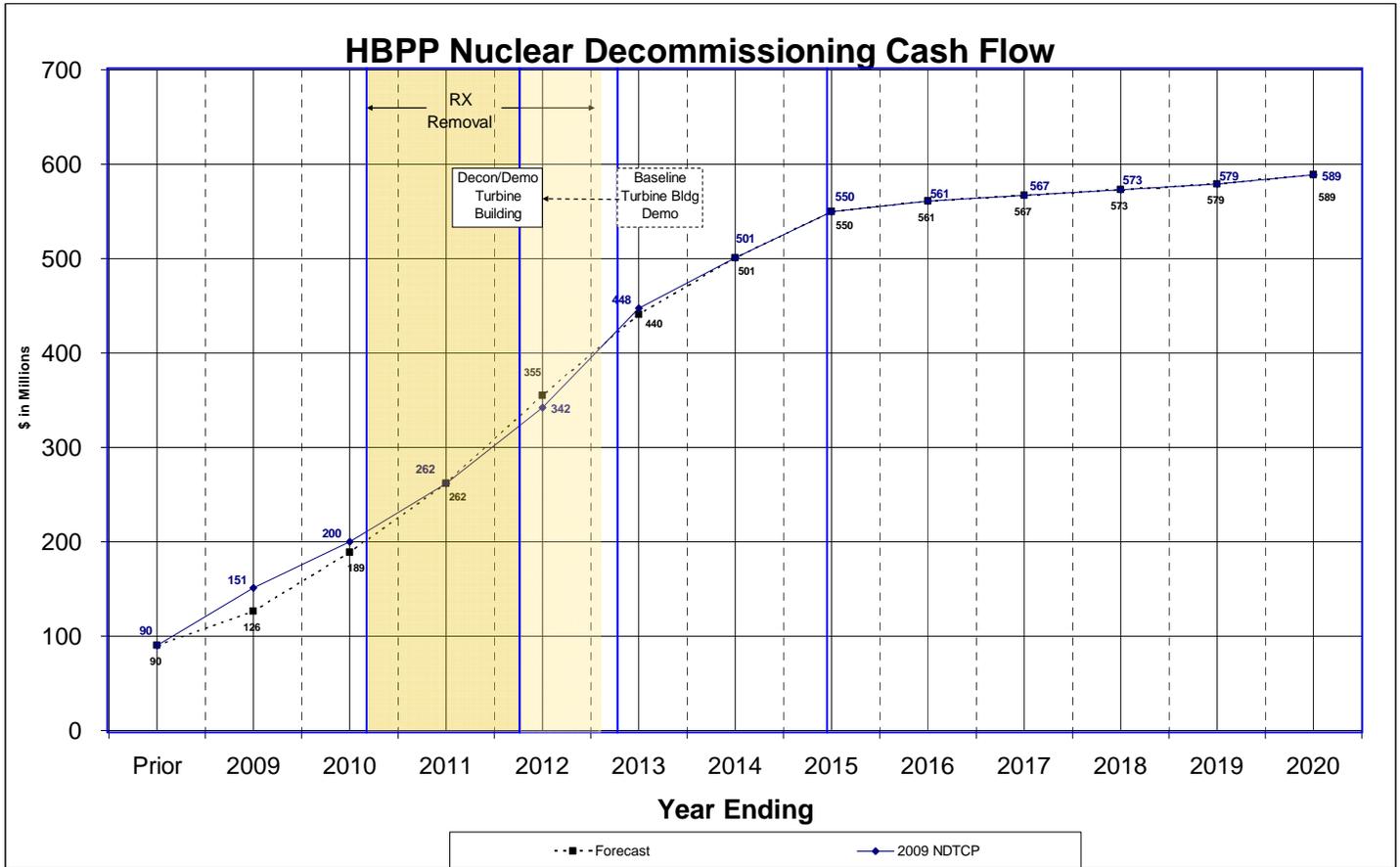
P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

Attachment 1

Graph Tracking NDCTP Forecast And Actual Decommissioning Expenditures



Comparison Forecast to Actual Expenditures			
Year	Baseline TLG Estimate (2008 \$)	Escalated TLG Estimate	Actual
Prior	-	-	90M
2009	75M ¹	78M ¹	36M
2010	46M	49M	63M
2011	55M	62M	73M ²
2012	68M	81M	93M ²
2013	83M	105M	86M ²
2014	41M	53M	-
2015	37M	49M	-

¹ \$16.9 million expended in 2008 included in 2009 Trust Funding Estimate

² Current Forecast

Attachment 2

Planned Project Activities and Costs

1. Operation and Maintenance of the ISFSI

The used fuel at Humboldt Bay was moved to the Independent Spent Fuel Storage Installation (ISFSI) in 2008. With the placement of the fuel at the ISFSI, PG&E commenced incurring operation and maintenance (O&M) expenses associated with the ISFSI. PG&E received initial funding of \$4 million through Advice Letter 3147-E; and an additional \$2.5 million, and \$7.2 million through Advice Letters 3843-E, and 3649-E, respectively, for this scope. The ongoing costs for O&M of the ISFSI, security at the ISFSI, NRC fees, and NRC inspections through December 2013 are an additional \$8.2 million.

2. Segmentation and Disposal of Reactor Vessel Shell

The segmentation, removal, and disposal of the reactor vessel shell is planned to begin in 2012 following the removal of the reactor vessel internals. The total estimate for this scope of work is \$28.7 million through 2013. Costs for the planning, preparation, and internal removals of the Reactor Vessel were covered in Advice Letter 3649-E.

3. Purchase Tools and Equipment

An adequate tool and equipment supply, including decontamination and health physics supplies are needed to perform the decommissioning activities. In addition to the typical hand tools and personnel protective equipment (PPE) inventories, this category includes, but is not limited to: building and equipment maintenance materials, site equipment refueling costs, weather protection supplies, unique equipment rental (*e.g.*, light stanchions, man-lifts, generators, pumps, fans, heaters), crane / hoist inspection services, and safety equipment. The tools and equipment purchased will be limited to that needed for the scope of work during this phase. The total estimate for tools and equipment for this phase is \$5.7 million.

4. Field Work and Site Infrastructure

This request includes the dismantling and preparation for disposal of the remaining systems and components within the RCA boundary. This includes, but is not limited to: tanks and vessels, pumps, piping and valves, fans, ducts, electrical cable and raceway, asbestos-containing insulation, panels and coatings, and embedded piping. This also includes scaffolding and other associated, additional costs. This request includes costs for design, fabrication, and operation of a groundwater management and treatment system. The existing high water table at the HBPP site introduces unique challenges for water management associated with building demolition and substructure and soil excavations. The system will be installed in 2012 and remain in operation through soil excavation. The estimate for this scope is \$24.5 million.

5. Decommissioning Labor Expenses

Labor costs include management positions, safety oversight, procurement, finance, licensing support, radiation protection, and engineering. Other work activities performed during this period will include bid scope preparation, bid evaluation, selection of demolition contractors, and contract administration. This request also includes historical site assessment, historical resource mitigation, environmental regulatory compliance, and safety meetings. The estimate for this scope of work through 2013 is \$61.2 million.

Attachment 2

6. Packaging, Transporting and Disposal of Waste

Components removed in the decontamination and dismantling of HBPP Unit 3 will be routed to an on-site central packaging and processing area. This includes the processing of dry active waste (DAW), resins, filter media, metallic and non-metallic components generated in the decommissioning. Contaminated material will be characterized, packaged and transported for disposal at the appropriate waste disposal facility. PG&E received initial funding of \$34 million through Advice Letter 3649-E and an additional \$13.9 million to implement the Waste Management and Transportation Plan through Advice Letter 3483-E. The estimate for packaging, transporting and disposal of waste through December 2013 is \$27.7 million.

7. Prepare Buildings for Decontamination and Demolition of Structures

This request includes decontamination and/or grouting of embedded pipe and shaving the surfaces of the concrete structures. These activities also include removal of LRW concrete tunnel, removal of activated concrete from the drywell; and removal of liner plates as necessary to access the concrete surfaces behind the liners. Demolition of Security Alarm Station, Stack Base, Hot Machine Shop, and Turbine Building are planned to take place in 2012 and 2013. The approved budgets for these scopes of work total \$22.6 million.

Attachment 3

Summary of Previous Advice Letter Approvals, Trust Withdrawals and Anticipated Disbursements

Previously identified activities include design, development, operations and maintenance of the Independent Spent Fuel Storage Installation; mitigation of Caisson In-Leakage; initial sampling, surveys, and radiological characterization of plant systems; environmental studies and permitting; preparations and removal of equipment and plant systems from the turbine building, refueling building and yard facilities; disposal of Class A and low level waste; as well as other preparatory activities for decommissioning.

The total amount authorized in previous advice letter requests is \$249.0 million, with ISFSI related requests at \$61.4 million and Non-ISFSI related at \$187.6 million. The amount actually expended through August 2011 totals \$237.0 million. The amount estimated to be spent from September 2011 through 2013 totals \$190.6 million.

The following table compares the actual expenditures for each activity to the amounts authorized.

	Earlier Advice Letters	Advice Letter 3147-E 1-Nov-07	Advice Letter 3483-E 29-Jun-09	Advice Letter 3649-E 13-Apr-10	Actual Expenditure through Aug 2011	Forecast Expenditure Sept-Dec 2011	Remainder (Carry Over)
ISFSI O&M		4,000,000	2,500,000	7,200,000	12,352,839	1,589,504	359,003
Reactor Vessel	100,000	1,100,000	1,700,000	20,100,000	8,345,990	1,185,402	13,468,608
Tools & Equipment	-	-	6,900,000	5,100,000	8,255,580	2,305,728	1,438,692
Field Work		8,600,000	11,500,000	16,500,000	26,744,088	7,717,601	2,813,311
Staffing		0	20,800,000	37,000,000	72,362,787	8,183,525	-22,746,312
Waste Disposal	-	5,600,000	13,900,000	34,000,000	15,757,075	3,434,539	34,308,386
Building Demolition				0	0	232,660	-232,660
Other		1,900,000	0	0	3,321,911	315,066	-2,056,977
Subtotal	100,000	21,200,000	57,300,000	119,900,000	147,140,270	24,964,025	
Miscellaneous	69,219,300	10,700,000		-29,400,000 ¹	89,895,798	0	
Total	69,319,300	31,900,000	57,300,000	90,500,000	237,036,068	24,964,025	-12,024,447

¹ Amount by which Advice Letter 3649-E requested total was reduced in Advice Letter 3649-E-S.

Attachment 3

The previous requests for staffing were significantly lower than actually spent. The baseline TLG nominal budget for staffing during this time is \$75.4 million, slightly less than the amount forecasted to spend through December 2011 (see table below). Under runs in other areas of the previous advice letters offset the overrun in staffing.

	PG&E Spent/Fcst 2009 - 2011	TLG Estimate 2009 – 2011
Staffing and Specialty Consultants	80,546,312	75,405,456

The difference is due to the increased number of Radiation Protection personnel required due to the unique alpha hazards, the mitigative actions for worker safety, and the early preparation of specifications to support the accelerated decontamination and demolition schedule.

Attachment 4

Correlation of Budget Categories to TLG Decommissioning Cost Estimate

ISFSI O & M (including Security Staffing)²		
	3b.4.8	NRC Fees
	3b.4.11	ISFSI Operating Costs
	3b.4.12	Security Staff Cost
	4a.4.8	NRC Fees
	4a.4.11	ISFSI Operating Costs
	4a.4.12	Security Staff Cost
	4b.4.8	NRC Fees
	4b.4.12	ISFSI Operating Costs
	4b.4.13	Security Staff Cost
	4c.4.8	NRC Fees
	4c.4.12	ISFSI Operating Costs
	4c.4.13	Security Staff Cost
	4d.4.7	NRC Fees
	4d.4.11	ISFSI Operating Costs
	4d.4.12	Security Staff Cost
Reactor Vessel		
	4a.2.2	Activation Analysis of Reactor
	4b.1.1.1	CRDMs & NIs Removal
	4b.1.1.2	Reactor Vessel Internals
	4b.1.1.3	Reactor Vessel
Tools, Equipment and Health Physics Supplies		
Tools and Equipment		
	3b.2.12	Procure Initial Inventory of Tools and Equipment
	3b.3.1	Decon equipment
	3b.3.3	Pipe cutting equipment
	3b.4.1	Decon supplies
	3b.4.4	Health physics supplies
	4a.3.2	Small tool allowance
	4a.4.1	Decon supplies
	4a.4.4	Health physics supplies

² References are to the TLG Decommissioning Cost Estimate approved in D.10-07-047.

Attachment 4

	4a.3.2	Small tool allowance
	4a.4.1	Decon supplies
	4a.4.4	Health physics supplies
	4b.3.2	Small tool allowance
	4b.4.1	Decon supplies
	4b.4.4	Health physics supplies
	4c.3.2	Small tool allowance
	4c.4.1	Decon supplies
	4c.4.4	Health physics supplies
	4c.4.5	Heavy equipment rental
	4d.3.1	Small Tool Allowance
	4d.4.3	Health physics supplies
	4d.4.4	Heavy equipment rental
Field Work and Site Infrastructure/Mods		
Special Projects		
	3b.2.1	Additional Support Facilities - Radiological Protection
	3b.2.2	Additional Support Facilities - Access, Fencing, Laydown Areas
	3b.2.3	Personnel & Material Access RB Access Shaft
	3b.2.6	Employee Emergency Notification System
	3b.2.7	Infrastructure for Facility Modifications
	3b.2.9	Rebuild Refueling Building Crane
	4a.2.1	Modifications Supporting Access for Equipment Removal
	4b.2.3	Expand Waste Packaging Laydown Area
Systems Removal		
	4a.1.1	Main Turbine/Generator
	4a.1.2	Main Condensers
	4a.1.3	Remove Spent Fuel Racks
	4a.1.4	Fuel Pool Cleanup
	4a.1.5.1	RB2-1
	4a.1.5.2	RB2-2
	4a.1.5.3	RB2-3
	4a.1.5.4	RB2-4
	4a.1.5.5	RB2-5
	4a.1.5.6	RB2-6
	4a.1.5.7	RB3-1
	4a.1.5.8	RB4-1
	4a.1.5.9	TB1-1 Main Turbine

Attachment 4

	4a.1.5.10	TB1-2 Main Generator
	4a.1.5.11	TB1-3 Hydrogen Yard
	4a.1.5.12	TB2-1 Main Condenser
	4a.1.5.13	TB2-2 Seal Oil Switchgear
	4a.1.5.14	TB3-1 Reactor Feed Pump
	4a.1.5.15	TB3-2 Propane Engine Generator
	4a.1.5.16	TB3-3 clean area 2400/480V Transformers
	4a.1.5.17	TB4-1 Pipe Tunnel
	4a.1.5.18	TB4-2 Pipe Gallery
	4a.1.5.19	TB5-1 Anion/Cation
	4a.1.5.20	TB5-2 Condensate Demineralizers
	4a.1.5.21	TB6-1 Air Ejector
	4a.1.5.22	TB6-2 Vacuum Pump/Condensate Pump
	4a.1.5.23	YARD
	4a.1.5.24	YD1-1 clean area Main Transformers
	4b.1.2.1	RB2-7
	4b.1.2.2	RB2-8
	4b.1.2.3	RB2-9
	4b.1.2.4	RW1-1
	4b.1.2.5	RW1-2
	4b.1.2.6	RW1-3
	4b.1.2.7	RW1-4
	4b.1.2.8	RW1-5
	4b.1.2.9	RW1-6
	4b.1.2.10	RW1-7
	4b.1.2.11	RW1-8
	4b.1.2.12	RW1-9
	4b.1.2.13	RWP
	4b.2.1	Discharge Piping
	4b.2.2	Asbestos Removal
	4b.2.3	Expand Waste Packaging Laydown Area
	4c.1.1.1	HMS1-1
	4c.1.1.2	HMS1-2
	4c.1.1.3	HMSP
	4c.1.1.4	OTS-1
	4c.1.1.5	OTS-2
	4c.1.1.6	OTS-3
	4c.1.1.7	OTS-4
	4c.1.1.8	OTS-5
	4c.1.1.9	OTS-6
	4c.1.1.10	RB1-1

Attachment 4

	4c.1.1.11	RB1-2
	4c.1.1.12	RB1-3
	4c.1.1.13	RB1-4
	4c.1.1.14	RB1-5
	4c.1.1.15	RB1-6
	4c.1.1.16	RB3-2
	4c.1.1.17	RB4-2
	4c.1.1.18	RB5-1
	4c.1.1.19	RB5-1 (HVAC Scope)
	4c.1.1.20	RBP
	4c.1.1.21	TB7-1
	4c.1.1.22	TB7-2
	4c.1.1.23	TB7-3
	4c.1.1.24	TB7-4
	4c.1.1.25	TB7-5
	4c.1.1.26	TB7-6
	4c.1.1.27	TB7-7
	4c.1.1.28	TBP
	4c.1.1.29	YD1-2
	4c.1.1.30	YD1-5
	4c.1.1.31	YD2-1
	4c.1.1.32	YD2-2
	4c.1.1.33	YD2-3
	4c.1.1.34	YD2-4
	4c.1.1.35	YD2-5
	4c.1.1.36	YD2-6
	4c.1.1.37	YDP
Emergent Work		
	4a.1.6	Scaffolding in support of decommissioning
	4b.1.3	Scaffolding in support of decommissioning
	4c.1.2	Scaffolding in support of decommissioning
Staffing and Specialty Consultants		
Staffing		
	3b.4.13	DOC Staff Cost
	3b.4.14	Utility Staff Cost
	4a.4.13	DOC Staff Cost
	4a.4.14	Utility Staff Cost
	4b.4.14	DOC Staff Cost

Attachment 4

	4b.4.15	Utility Staff Cost
	4c.4.14	DOC Staff Cost
	4c.4.15	Utility Staff Cost
	4d.4.13	DOC Staff Cost
	4d.4.14	Utility Staff Cost
Specialty Consultants		
	3b.4.10	Environmental / Engineering Support
	4a.4.10	Environmental / Engineering Support
	4b.4.10	Environmental / Engineering Support
	4c.4.10	Environmental / Engineering Support
	4d.4.9	Environmental / Engineering Support
Packaging, Transportation and Disposal		
Waste Disposal		
	3b.2.8	Mixed Waste Disposal
	3b.2.11	Package Legacy Class B & C Waste
	3b.4.6	Disposal of DAW generated
	4a.1.1	Main Turbine/Generator
	4a.1.2	Main Condensers
	4a.1.3	Remove Spent Fuel Racks
	4a.1.5.1	RB2-1
	4a.1.5.2	RB2-2
	4a.1.5.3	RB2-3
	4a.1.5.4	RB2-4
	4a.1.5.5	RB2-5
	4a.1.5.6	RB2-6
	4a.1.5.7	RB3-1
	4a.1.5.8	RB4-1
	4a.1.5.9	TB1-1 Main Turbine
	4a.1.5.12	TB2-1 Main Condenser
	4a.1.5.14	TB3-1 Reactor Feed Pump
	4a.1.5.17	TB4-1 Pipe Tunnel
	4a.1.5.18	TB4-2 Pipe Gallery
	4a.1.5.19	TB5-1 Anion/Cation
	4a.1.5.20	TB5-2 Condensate Demineralizers
	4a.1.5.21	TB6-1 Air Ejector
	4a.1.5.22	TB6-2 Vacuum Pump/Condensate Pump
	4a.3.1	Process liquid waste
	4a.4.6	Disposal of DAW generated

Attachment 4

	4b.1.2.1	RB2-7
	4b.1.2.2	RB2-8
	4b.1.2.3	RB2-9
	4b.1.2.4	RW1-1
	4b.1.2.5	RW1-2
	4b.1.2.6	RW1-3
	4b.1.2.7	RW1-4
	4b.1.2.8	RW1-5
	4b.1.2.9	RW1-6
	4b.1.2.10	RW1-7
	4b.1.2.11	RW1-8
	4b.1.2.12	RW1-9
	4b.2.1	Discharge Piping
	4b.3.1	Process liquid waste
	4b.4.6	Disposal of DAW generated
	4b.4.11	Radwaste Processing Equipment/Services
	4c.1.1.1	HMS1-1
	4c.1.1.2	HMS1-2
	4c.1.1.3	HMSP
	4c.1.1.8	OTS-5
	4c.1.1.10	RB1-1
	4c.1.1.11	RB1-2
	4c.1.1.12	RB1-3
	4c.1.1.13	RB1-4
	4c.1.1.14	RB1-5
	4c.1.1.15	RB1-6
	4c.1.1.16	RB3-2
	4c.1.1.17	RB4-2
	4c.1.1.18	RB5-1
	4c.1.1.19	RB5-1 (HVAC Scope)
	4c.1.1.20	RBP
	4c.1.1.23	TB7-3
	4c.1.1.24	TB7-4
	4c.1.1.25	TB7-5
	4c.1.1.26	TB7-6
	4c.1.1.29	YD1-2
	4c.1.1.30	YD1-5
	4c.1.1.31	YD2-1
	4c.1.1.32	YD2-2
	4c.1.1.33	YD2-3
	4c.1.1.34	YD2-4

Attachment 4

	4c.1.1.35	YD2-5
	4c.1.1.36	YD2-6
	4c.1.1.37	YDP
	4c.1.2	Scaffolding in support of decommissioning
	4c.1.3.1	HMS
	4c.1.3.2	Hot Machine Shop & Calibration
	4c.1.3.3	RB1
	4c.1.3.4	RB2
	4c.1.3.5	RB3
	4c.1.3.6	RB4
	4c.1.3.7	RB5-1 (Refuel Bldg Roof)
	4c.1.3.8	RW1
	4c.1.3.9	Refueling
	4c.1.3.10	TB1
	4c.1.3.11	TB2
	4c.1.3.12	TB3
	4c.1.3.13	TB4
	4c.1.3.14	TB5
	4c.1.3.15	TB6
	4c.1.3.16	TB7
	4c.1.3.17	Turbine
	4c.1.3.18	YD1
	4c.1.3.19	YD2
	4c.2.1	Contaminated Soil Removal
	4c.2.3	Caisson Mixed Waste Removal
	4c.2.5	Removal of 3 spent fuel pool walls
	4c.2.6	Removal of Yard Pipe Tunnel
	4c.3.1	Process liquid waste
	4c.4.6	Disposal of DAW generated
	4c.4.11	Radwaste Processing Equipment/Services
	4d.1.1	Contaminated Equipment Storage
	4d.1.2	Gas Stack
	4d.1.3	Hot Machine Shop & Calibration
	4d.1.4	New Off Gas Vault
	4d.1.5	Radwaste Treatment
	4d.1.6	Refueling
	4d.1.7	Solid Waste Vault
	4d.1.8	Turbine
	4d.1.9	Yard Structures
	4d.4.5	Disposal of DAW generated
	4d.4.10	Radwaste Processing Equipment/Services

Attachment 4

Packaging, Glove Bags, Containers, etc.		
	3b.4.5	Heavy equipment rental
	4a.1.3	Remove Spent Fuel Racks
	4a.1.5.1	RB2-1
	4a.1.5.2	RB2-2
	4a.1.5.3	RB2-3
	4a.1.5.4	RB2-4
	4a.1.5.5	RB2-5
	4a.1.5.6	RB2-6
	4a.1.5.7	RB3-1
	4a.1.5.8	RB4-1
	4a.1.5.9	TB1-1 Main Turbine
	4a.1.5.12	TB2-1 Main Condenser
	4a.1.5.14	TB3-1 Reactor Feed Pump
	4a.1.5.17	TB4-1 Pipe Tunnel
	4a.1.5.18	TB4-2 Pipe Gallery
	4a.1.5.19	TB5-1 Anion/Cation
	4a.1.5.20	TB5-2 Condensate Demineralizers
	4a.1.5.21	TB6-1 Air Ejector
	4a.1.5.22	TB6-2 Vacuum Pump/Condensate Pump
	4a.4.4	Health physics supplies
	4a.4.5	Heavy equipment rental
	4b.1.1.1	CRDMs & NIs Removal
	4b.1.2.1	RB2-7
	4b.1.2.2	RB2-8
	4b.1.2.3	RB2-9
	4b.1.2.4	RW1-1
	4b.1.2.5	RW1-2
	4b.1.2.6	RW1-3
	4b.1.2.7	RW1-4
	4b.1.2.8	RW1-5
	4b.1.2.9	RW1-6
	4b.1.2.10	RW1-7
	4b.1.2.11	RW1-8
	4b.1.2.12	RW1-9
	4b.2.1	Discharge Piping
	4b.4.4	Health physics supplies
	4b.4.5	Heavy equipment rental

Attachment 4

Building Demolition (including decontamination)		
Prep Buildings for Demolition (Building Decontamination)		
	4c.1.3.1	HMS
	4c.1.3.2	Hot Machine Shop & Calibration
	4c.1.3.3	RB1
	4c.1.3.4	RB2
	4c.1.3.5	RB3
	4c.1.3.6	RB4
	4c.1.3.7	RB5-1 (Refuel Bldg Roof)
	4c.1.3.8	RW1
	4c.1.3.9	Refueling
	4c.1.3.10	TB1
	4c.1.3.11	TB2
	4c.1.3.12	TB3
	4c.1.3.13	TB4
	4c.1.3.14	TB5
	4c.1.3.15	TB6
	4c.1.3.16	TB7
	4c.1.3.17	Turbine
	4c.1.3.18	YD1
	4c.1.3.19	YD2
Building Demolition		
	4d.1.1	Contaminated Equipment Storage
	4d.1.2	Gas Stack
	4d.1.3	Hot Machine Shop & Calibration
	4d.1.4	New Off Gas Vault
	4d.1.5	Radwaste Treatment
	4d.1.6	Refueling
	4d.1.7	Solid Waste Vault
	4d.1.8	Turbine
	4d.1.9	Yard Structures
	4d.2.1	Backfill of Structures and Site
Additional Costs		
	4b.2.1	Discharge Piping
	4b.2.2	Asbestos Removal
	4c.2.1	Contaminated Soil Removal
	4c.2.2	Replacement of Drains and Catch Basins
	4c.2.3	Caisson Mixed Waste Removal

Attachment 4

	4c.2.4	Site work supporting spent fuel pool removal
	4c.2.5	Removal of 3 spent fuel pool walls
	4c.2.6	Removal of Yard Pipe Tunnel
	4c.2.7	Contaminated Soil & Concrete Storage Facility
Other		
	3b.2.4	Cross Contamination Plan
	3b.2.5	Replacement of Rad Protection Access Software System
	3b.2.10	Sr-90 Groundwater Program
	3b.3.2	DOC staff relocation expenses
	3b.4.2	Insurance
	3b.4.7	Plant energy budget
	3b.4.9	Emergency Planning Fees
	4a.4.2	Insurance
	4a.4.7	Plant energy budget
	4a.4.9	Emergency Planning Fees
	4b.4.2	Insurance
	4b.4.7	Plant energy budget
	4b.4.9	Emergency Planning Fees
	4c.3.3	Decommissioning Equipment Disposition
	4c.4.2	Insurance
	4c.4.7	Plant energy budget
	4c.4.9	Emergency Planning Fees
	4d.4.1	Insurance
	4d.4.6	Plant energy budget
	4d.4.8	Emergency Planning Fees

**PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV**

AT&T	Dept of General Services	Northern California Power Association
Alcantar & Kahl LLP	Douglass & Liddell	Occidental Energy Marketing, Inc.
Ameresco	Downey & Brand	OnGrid Solar
Anderson & Poole	Duke Energy	Praxair
Arizona Public Service Company	Economic Sciences Corporation	R. W. Beck & Associates
BART	Ellison Schneider & Harris LLP	RCS, Inc.
Barkovich & Yap, Inc.	Foster Farms	Recurrent Energy
Bartle Wells Associates	G. A. Krause & Assoc.	SCD Energy Solutions
Bloomberg	GLJ Publications	SCE
Bloomberg New Energy Finance	GenOn Energy, Inc.	SMUD
Boston Properties	Goodin, MacBride, Squeri, Schlotz & Ritchie	SPURR
Braun Blasing McLaughlin, P.C.	Green Power Institute	San Francisco Public Utilities Commission
Brookfield Renewable Power	Hanna & Morton	Seattle City Light
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CLECA Law Office	In House Energy	Sierra Pacific Power Company
CSC Energy Services	International Power Technology	Silicon Valley Power
California Cotton Ginners & Growers Assn	Intestate Gas Services, Inc.	Silo Energy LLC
California Energy Commission	Lawrence Berkeley National Lab	Southern California Edison Company
California League of Food Processors	Los Angeles Dept of Water & Power	Spark Energy, L.P.
California Public Utilities Commission	Luce, Forward, Hamilton & Scripps LLP	Sun Light & Power
Calpine	MAC Lighting Consulting	Sunshine Design
Cardinal Cogen	MBMC, Inc.	Sutherland, Asbill & Brennan
Casner, Steve	MRW & Associates	Tabors Caramanis & Associates
Chris, King	Manatt Phelps Phillips	Tecogen, Inc.
City of Palo Alto	McKenzie & Associates	Tiger Natural Gas, Inc.
City of Palo Alto Utilities	Merced Irrigation District	TransCanada
City of San Jose	Modesto Irrigation District	Turlock Irrigation District
Clean Energy Fuels	Morgan Stanley	United Cogen
Coast Economic Consulting	Morrison & Foerster	Utility Cost Management
Commercial Energy	NLine Energy, Inc.	Utility Specialists
Consumer Federation of California	NRG West	Verizon
Crossborder Energy	NaturEner	Wellhead Electric Company
Davis Wright Tremaine LLP	Navigant Consulting	Western Manufactured Housing Communities Association (WMA)
Day Carter Murphy	Norris & Wong Associates	eMeter Corporation
Defense Energy Support Center	North America Power Partners	
Department of Water Resources	North Coast SolarResources	