

Application No.

Exhibit No.

Date

Witness

PACIFIC GAS AND ELECTRIC COMPANY

ELECTRIC DEPARTMENT

PREPARED TESTIMONY AND SUPPORTING DATA

WILLIAM M. GALLAVAN

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PREPARED TESTIMONY OF

WILLIAM M. GALLAVAN

Q. Please state your name and business address.

A. My name is William M. Gallavan. My business address is 77 Beale Street, San Francisco, California 94106.

Q. What is your position with PGandE?

A. I am Vice President - Rates and Valuation.

Q. What is your background?

A. After serving in the United States Air Force, I received an A.B. degree in Accounting from the University of California. From 1949 to 1954, I was employed by Coast Counties Gas and Electric Company in the Accounting Department, and, after the merger with Pacific Gas and Electric Company in July 1954, I was transferred to the Comptroller's Department as an accountant. During the next decade, I was a senior rate engineer and a senior commercial analyst. I became Manager of the Rate Department in July 1968 and was appointed Vice President Rates and Valuation on March 1, 1975.

Q. Mr. Gallavan, will you please explain what PGandE is requesting in this proceeding?

1 A. We are requesting two things in this proceeding.

2 First, the establishment of a Diablo Canyon adjustment
3 procedure to adjust PGandE's base rates upwards to
4 compensate for the cost of ownership and operation of
5 Diablo Canyon Nuclear Units 1 and 2. These are an
6 extremely large increment of rate base that otherwise
7 would not be recognized for rate making purposes until
8 a 1982 test year general rate case. It is estimated
9 that Unit No. 1 will result in an increase in PGandE's
10 electric rate base of approximately 21 percent and
11 that addition of Unit No. 2 will increase the rate
12 base by approximately 16 percent.

13 To assure equitable treatment both for our
14 customers and for PGandE, we request that a balancing
15 account be established under section 792.5 of the
16 Public Utilities Code in order to reflect the balance,
17 whether positive or negative, between the actual costs
18 that develop and revenues from the Diablo Canyon
19 adjustment rate.

20 Secondly, in the accompanying Energy Cost
21 Adjustment Clause (ECAC) application, we are proposing
22 a rate decrease to reflect the estimated reduction in
23 the Company's fuel costs after operation of the Diablo
24 Canyon units when the lower cost nuclear fuel replaces
25 higher cost fossil fueled electric generation. The
26 Commission has properly included the mechanism for

1 reflecting nuclear fuel costs in the ECAC and this
2 reduction eventually will be passed on to PGandE's
3 customers. In this proceeding, we are requesting the
4 Commission to authorize PGandE to make this reduction
5 in ECAC rates when Diablo becomes commercially
6 operative rather than waiting until the reduced fuel
7 costs are reflected in historical data as normally
8 occurs under the ECAC procedure. The rate change is
9 to be concurrent with the proposed base rate increase.

10 Q. Describe the balancing account proposed by PGandE
11 and the entries to be made to this account.

12 A. The balancing account and the entries to be made
13 to the account are described in appendix 1.

14 Q. What is the cost of the two units?

15 A. The estimated cost of Unit No. 1 is approximately
16 \$907 million of which approximately \$309 million is
17 AFUDC and the estimated cost to complete Unit No. 2 is
18 \$736 million with an AFUDC cost of \$241 million.
19 These costs together with certain other
20 adjustments--the cost of nuclear fuel in the reactor
21 and the adjustment for investment tax credit--result
22 in the rate base figures shown in the Results of
23 Operations, appendix 2 of this exhibit, amounting to
24 approximately \$910,000,000 for Unit 1 and \$723,000,000
25 for Unit 2. The annualized revenue requirements for
26 Units 1 and 2, which are also shown in the Results of

1 Operations and which I will discuss in more detail,
2 are \$167,438,000 and \$131,622,000, respectively.

3 It is estimated that the cost for nuclear fuel for
4 these units based on current dollars will be slightly
5 greater than 6 mills per kwhr as compared to
6 approximately 33 mills per kwhr for fossil fuel at
7 current prices of about \$21.50 per barrel for firm
8 supplies of this magnitude. This is a sizable
9 reduction in the Company's energy costs. For example,
10 the net reduction with Unit No. 1 operating at 65%
11 capacity factor would be about \$169 million per year
12 with oil at \$21.50 per barrel.

13 Q. What will be the net effect of these two rate
14 adjustments on PGandE's current customers?

15 A. The overall effect on current customers will be
16 nil. While there will be some small difference
17 between the costs considered in the rate base offset
18 and the corresponding reduction in fuel costs, we
19 propose, in the interest of rate stabilization, to
20 make the ECAC reduction identical with the Diablo
21 Canyon adjustment.

22 Q. How much do you expect this difference to be?

23 A. If we assume a price for nuclear fuel of 6.2 mills
24 per kwh, a cost of fuel oil of \$21.50 a barrel,
25 operation at 65% capacity factor and costs as
26 developed in the Results of Operations exhibit, we

1 find that the resulting impact on ECAC as shown in
2 appendix 4 would be 2.752 mills per kwh and the Diablo
3 Canyon adjustment offset would be 2.743 mills per kwh.
4 (Appen. 5 of this exhibit.) If we assume 70 percent
5 capacity factor operation, the adjustment to the ECAC
6 would average 2.97 mills per kwh, but the adjustment
7 to reflect the Diablo Canyon results would remain at
8 2.743 mills per kwh.

9 Q. Isn't it true that there may also be a difference
10 between the expenses incurred in owning and operating
11 the plant and the amount collected under the Diablo
12 Canyon adjustment?

13 A. It is almost certain that there will be a
14 difference. We expect to place this difference in the
15 balancing account and to adjust rates up or down to
16 eliminate it.

17 Q. Why is PGandE asking for this particular rate
18 making treatment?

19 A. In Application No. 55509, PGandE requested an
20 allowance for construction work in progress (CWIP) in
21 rate base.

22 The Commission did not include CWIP in rate base.
23 It stated, however, in Decision No. 86281 at page 49,
24 "We recognize that timely inclusion in rate base of
25 significant additions to plant is a subject that is
26 not well suited to current rate making procedures.

1 Accordingly, we propose to consider the addition of
2 Diablo Canyon in conjunction with an ECAC proceeding
3 at the proper time." Because of the Commission's
4 desire to handle Diablo Canyon in a separate pro-
5 ceeding, and because of the need for rate relief that
6 will arise with the completion of the Diablo units, we
7 have filed this application. The costs of owning and
8 operating the Diablo units were not included in our
9 1978 or 1980 test year general rate cases.

10 When Diablo becomes operative, our customers will
11 benefit through the operation of ECAC and its
12 balancing account from the significant decrease in
13 fuel costs that will occur. It is only equitable that
14 our customers pay the costs of owning and operating
15 the facility that creates the benefit. As the
16 Commission recognized in Decision No. 86281, it is
17 necessary to consider both sides of the equation
18 together if both the ratepayer and the Company are to
19 be treated fairly.

20 Q. When do you propose to place this procedure into
21 effect?

22 A. We request that the adjustment procedure and
23 balancing account be authorized at the earliest
24 possible time to be effective on the date of
25 commercial operation. This will allow PGandE to
26 accrue costs in the balancing account in the event

1 that commercial operation occurs before a rate
2 adjustment can be made. The Company will file advice
3 letters to implement the changes in rates under the
4 Diablo Canyon adjustment balancing account and the
5 ECAC and will make such rate changes offsetting and
6 concurrent. Under the existing ECAC balancing
7 account, the reductions in fuel costs will
8 automatically start being recorded when the Diablo
9 units become operative and high cost fossil fuel
10 generation is displaced. It is important that there
11 be a comparable balancing account to accrue the costs
12 of owning and operating Diablo when it becomes
13 operative and stops accruing AFUDC.

14 Q. Will you please explain the significance of the
15 term "commercial operating date"?

16 A. Yes. All new generating units produce some amount
17 of electric energy during testing and adjustment prior
18 to the beginning of commercial operation. For
19 instance, in hydroelectric units this generation may
20 take place while reservoirs are being filled and in
21 thermal plants while preliminary tests are being run.
22 Diablo Canyon will be no different. After tests are
23 satisfactorily completed, the units will be declared
24 ready for commercial operation.

25 At that time, the unit or units will pass from the
26 Construction Work in Progress (CWIP) accounts into the

1 plant accounts and into the rate base. We will begin
2 to accrue depreciation on the units and we will
3 discontinue the accrual of AFUDC.

4 It is important to recognize that at the present
5 time AFUDC for the two units is adding approximately
6 \$10 million per month to the total cost of the plant
7 and eventually to the rate base which must be
8 recovered from PGandE's customers.

9 Q. How do you propose to account for generation and
10 power production that would occur before the
11 commercial operating date?

12 A. There are at least two ways that this can be
13 handled. First, since this power is produced during
14 test periods without a specific value to capacity
15 requirements, its value is the value of replaced
16 fossil fuel. The difference in the cost of nuclear
17 fuel and replaced fossil fuel in total amount is
18 sometimes credited to the plant investment for the
19 station resulting in a slight reduction in plant cost
20 and resulting rate base. Another way that it may be
21 handled is to include nuclear fuel costs in the ECAC
22 which results in a reduction in fuel costs and rates
23 to current customers. It is estimated that each unit
24 will produce about 660,000,000 kwh during testing;
25 this would have a net replacement fuel value of about
26 \$18,000,000 per unit with nuclear fuel costs of

1 6 mills per kwh and fossil fuel costs of \$21.50 per
2 bbl. This is the amount that would flow through to
3 current customers.

4 Q. Has the number of dollars included in the total
5 cost for AFUDC increased over initial estimates?

6 A. Yes For example, it has increased from the
7 original estimate of approximately \$17.5 million in
8 1966 for Unit No. 1 to approximately \$309 million in
9 1980 for that unit. A number of factors are
10 responsible for this increase. First, there is the
11 extremely long construction period which is in excess
12 of 10 years. Secondly, regulatory requirements have
13 led to changes in design which have resulted in
14 increases in construction costs in general and, third,
15 there has been an increase in the AFUDC rate itself.
16 When the original plant estimates were prepared for
17 Unit No. 1, the AFUDC rate was approximately
18 5 percent. This rate has increased, due in part to
19 inflation, to the present rate of 8 percent. Of
20 course, application of the current AFUDC rate to the
21 large expenditure to date is resulting in a continual
22 increase in cost.

23 Q. In the application for a certificate of public
24 convenience and necessity for Unit 1 filed with this
25 Commission, PGandE indicated that the unit would be
26 required to meet the load in 1972 and that Unit No. 2

1 would be required at a somewhat later date.
2 Obviously, the plant was not completed on those dates,
3 but PGandE was able to meet its load. Will you please
4 explain this apparent incongruity.

5 A. There are several reasons. First, load did not
6 develop as expected. Implicit in any statement of
7 need for new generation are forecasts of future loads
8 and forecasts of resources that will be available to
9 meet those loads. The longer the period between the
10 forecasted need for new generation and the date of
11 commercial operation, the more conditions change. A
12 forecast of tomorrow's loads and resources is a more
13 accurate forecast than the forecast of next month's or
14 the next decade's loads and resources. With the
15 extremely long time span involved in the certification
16 and licensing process, the design process, and the
17 construction process for today's major units, there is
18 greater opportunity for changes which could not have
19 been anticipated when the original forecast was made.
20 With the advantage of hindsight, it is obvious that
21 forecasts made in 1967-68 did not reflect the energy
22 crisis that would occur and the conservation efforts
23 that would be required and encouraged during this
24 period or drought conditions that would evolve in the
25 latter part of this period. The forecast in the
26 1967-68 period estimated an increase in load of about

1 7 percent annually. Recorded increases have been
2 considerably less than this amount. In fact, there
3 was a decline in peak demand in 1977 below recorded
4 demand in 1976. Hence, we met the load in part by the
5 fact that the load did not develop as expected.

6 During the early stages of construction of the
7 Diablo Units, the Company operated with a net margin
8 or an excess of resources over demand at the time of
9 the annual peak, in the 20 percent range. By 1972 the
10 margin had dropped to about 14%, and by 1976 the
11 margin had been reduced even further. In the peak
12 periods, PGandE has had to make purchases of
13 short-term capacity in order to maintain margin.
14 Hence, we have in some measure met the load by seeing
15 margins reduced much below what is generally
16 considered good operating procedure. The Federal
17 Energy Regulatory Commission regards a 20% margin as
18 reasonable for systems that are predominantly thermal
19 and a somewhat lesser percentage as reasonable for
20 systems that combine hydroelectric generation with
21 thermal.

22 We have also been able to make purchases of
23 capacity and energy in some cases when maintenance may
24 be safely postponed and to time major maintenance
25 projects so they do not coincide with periods of peak
26 demand. And, last, during the past year and perhaps

1 during this year, we have been blessed with large
2 amounts of hydroelectricity at PGandE-owned hydro-
3 electric plants.

4 Q. Will you please explain how the Results of
5 Operations tables were prepared?

6 A. The Results of Operations tables, appendix 2, have
7 as their basis the 1978 test year results of
8 operations tabulation that appears in Decision No.
9 89316 (Application No. 57284), which is the most
10 recent adopted for PGandE by the Commission. This
11 tabulation shows, for the Electric Department, at
12 rates authorized in that decision, the operating
13 revenues, operating expenses (except fuel), rate base
14 and rate of return for CPUC jurisdictional sales.

15 The operating and ownership expenses and the rate
16 base have been estimated for each of the two Diablo
17 Canyon units, for the first 12 months of commercial
18 operation and these amounts combined with the amounts
19 from Decision No. 89316. The sum of these estimated
20 expenses, including income taxes and return, comprise
21 the revenue requirement which is shown as operating
22 revenue for the individual Diablo units. This is the
23 amount which when divided by the appropriate sales
24 estimate produces the Diablo Canyon adjustment amount.

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1 Column (A) of the Results of Operations tabulation
2 sets forth the total rate base, expenses and revenue
3 requirement associated with Diablo Canyon Unit No. 1
4 and column (B) contains similar material for Unit
5 No. 2. Column (C) is taken from Decision No. 89316,
6 Table II-A, and shows rate base, expenses and revenue
7 requirements applying to CPUC Jurisdictional Sales for
8 the test year 1978. Column (D) is the allocation of
9 the cost items for Unit No. 1 to CPUC Jurisdictional
10 Sales and column (E) is similar material for Unit
11 No. 2. Expenses and rate base have been allocated at
12 93 percent of the total. The use of the 93 percent
13 figure is supported by the tabulation attached as
14 appendix 3. The CPUC jurisdictional costs are
15 combined in column (F).

16 Columns (G), (H), and (J) show the offsetting
17 effect of the proposed ECAC filing which will be equal
18 to the rate base adjustment. The principle of rate
19 stabilization is demonstrated by the fact that in
20 spite of increases in rate base and expenses the
21 operating revenue (revenue requirement) in column (J)
22 after the Diablo Canyon additions is the same as the
23 requirement shown in column (C) before the additions.

24 These tables develop this material for initial
25 commercial operating dates for Unit No. 1 of
26 December 1, 1979, and February 1, 1980. In addition,

1 we have included similar material based on the
2 estimates used in Application No. 58545 for the 1980
3 test year (pp. 3 and 4 of appen. 2), and have also
4 included this table as an exhibit in the ECAC filing.

5 Q. Why were the results of operations from the 1978
6 test year used?

7 A. It was not necessary to use any test year results
8 of operation--the computations for the individual
9 units stand alone and are developed alone. They were
10 combined with an authorized test year without changing
11 the overall rate of return to show the effect of the
12 Diablo units on PGandE's results of operations as most
13 recently adopted by the Commission and to show that
14 the adjustments do not increase PGandE's rate of
15 return but only offset the costs related to the Diablo
16 units.

17 To emphasize this point we included as part of the
18 Results of Operations tabulation a similar table
19 showing PGandE's estimated test year 1980 results of
20 operations from general rate Application No. 58545 at
21 present rates.

22 Q. What do you mean when you refer to the cost of
23 ownership and operation of the Diablo Canyon units?

24 A. If you will refer to appendix 2, you will
25 understand what I mean.

26 ///

1 Consider Unit No. 1. We estimate that the
2 investment in Unit No. 1, for example, will be
3 approximately \$907 million, and the effect on rate
4 base will be about \$910 million. PGandE must pay
5 interest on the bonds and a return on the stock sold
6 to raise this money. As with any other investment by
7 a utility this cost must be recovered from the
8 customers. This is the principal cost of ownership.
9 The other costs are set forth in the Results of
10 Operations.

11 Q. Please continue with your discussion of the
12 Results of Operations.

13 A. After the total cost of each of the items had been
14 developed, the expenses and rate base were allocated
15 to CPUC jurisdictional sales on approximately the same
16 basis as in Application No. 58545.

17 In developing the revenue requirements which
18 appear in the Results of Operations tables as
19 operating revenue for each of the two units, we have
20 used a rate of return of 9.5 percent for the
21 California jurisdictional sales, which is the rate of
22 return most recently found reasonable by the
23 Commission for PGandE.

24 The rate base for each of the units has been
25 developed applying Commission authorized methods using
26 weighted average plant reduced by the depreciation

1 reserve and the accumulated deferred investment tax
2 credit. This is in accordance with regular accounting
3 practice. Expenses have been estimated using
4 Commission authorized methods and all costs have been
5 estimated on an annual basis beginning with the date
6 of commercial operation.

7 Q. What would be the Company's position if, while
8 this procedure were in effect, PGandE should be
9 granted an increase in its rate of return?

10 A. Under the proposed tariff, the return and income
11 tax component would increase in amount and at the time
12 of the next revision the Diablo Canyon adjustment rate
13 would increase. Such changes can be readily handled
14 in the balancing account procedure.

15 Q. How have you accounted for nuclear fuel expense?

16 A. The nuclear fuel for the first core for each of
17 the two units has been delivered to the site and is
18 presently accounted for as a part of CWIP. Hence, its
19 cost is being increased periodically by AFUDC and at
20 the date of commercial operation the accumulated
21 amount will be included in the proper rate base
22 account. The expensing of nuclear fuel cost under
23 present regulations is made up of two components:
24 first, write-off of the cost of the acquisition and
25 fabrication of the fuel, and, second, the estimated
26 disposal of the material after it has been used for

1 the production of electric energy that is similar in
2 accounting and rate making treatment to the combined
3 expensing of depreciation and cost of removal for
4 other rate base items where disposal costs are high
5 and salvage low.

6 We estimate that the first core for Unit 1 for
7 these two categories of expense will total \$110
8 million and that the first core will produce
9 approximately 17.7 billion kwhrs. This produces an
10 average unit cost for fuel based on acquisition cost
11 plus disposal cost of 6.2 mills per kwhr.

12 The estimated monthly production at 65 percent
13 capacity factor is 531,804,000 kwh and when multiplied
14 by this 6.2 mill figure produces a monthly fuel
15 expense of \$3,298,279. This monthly cost has been
16 deducted from the rate base amount for the cost of
17 acquisition of the fuel and the resulting monthly
18 balances averaged to produce the proper weighted rate
19 base figure. The result of this is to collect from
20 the customer the cost of acquiring the fuel and the
21 estimated cost of disposal while at the same time
22 reducing the rate base upon which the Company will
23 earn by crediting the amount of disposal costs
24 collected.

25 Q. How have you estimated disposal costs in this
26 filing?

1 A. At the present time, the United States government
2 has assumed responsibility for spent fuel disposal but
3 the site and the procedure to be used have not yet
4 been determined. The estimated cost of disposal used
5 in this study includes the cost of storing the spent
6 fuel at the site for a period of approximately five
7 years, shipment to its ultimate storage facility and a
8 one-time payment to the United States for permanent
9 disposal. Disposal costs are estimated to amount to
10 approximately 40 percent of the total cost of fuel.

11 Q. There has been discussion of decommissioning costs
12 in other cases involving reactors. Will you please
13 explain how these costs have been treated in this
14 application.

15 A. PGandE has authorized Nuclear Utilities Service
16 Corp. (NUS), a recognized authority in the field, to
17 prepare a site specific study of the estimated cost of
18 decommissioning the Diablo Canyon units. This study
19 is underway but had not been completed at the time
20 this filing was made.

21 NUS advised PGandE by letter dated February 5,
22 1979, that their preliminary work indicates a site
23 specific study for Diablo Unit 1 will result in an
24 estimated decommissioning cost, based on 1979 dollars,
25 in the upper part of the range between \$70 and \$100
26 million.

1 While these amounts are large when viewed as a
2 separate item, they are relatively small when viewed
3 in the perspective of a component of the customers
4 rate. Said another way, the decommissioning costs
5 amount to .05 cents per kwh in the total rate.

6 In this filing, we have treated decommissioning
7 costs in the conventional net salvage manner and have
8 arrived at an estimated cost in 1979 dollars of
9 slightly more than \$105 million for Unit 1 and
10 slightly less than \$88 million for Unit 2. These
11 figures will be revised upon completion of the NUS
12 study and the differences will be adjusted for in the
13 balancing account.

14 Q. How often do you propose to make balancing adjust-
15 ments?

16 A. We propose to make the first adjustment one year
17 after Unit No. 1 begins commercial operation and to
18 make annual adjustments until the units are included
19 in a general case.

20 Q. Then your first adjustment might include a part of
21 a year for Unit No. 2?

22 A. Yes.

23 Q. Are you asking that this adjustment be made a
24 permanent part of PGandE's tariff?

25 A. No, we are not. We are asking that it remain in
26 effect until the Diablo Canyon units are included in a

1 general rate proceeding. It is possible that this
2 could be the case for the 1982 test year. However, as
3 the estimated beginning of commercial operation moves
4 farther along, it seems likely that we will not have
5 one year's experience at the time that case must be
6 prepared. Should this prove to be true, we would
7 recommend further use of the procedure. We would
8 expect at that time to demonstrate alternate means of
9 incorporating the balancing account into base rates.

10 Q. Please explain the procedure to be followed if the
11 dates of commercial operation are different from the
12 dates used in this filing.

13 A. For illustrative purposes we have prepared this
14 filing using as an example the date December 1, 1979,
15 for the commercial operating date of Unit No. 1 and
16 Unit No. 2 following eight months later on August 1,
17 1980. To indicate the effect of time on costs we have
18 also prepared the same data assuming a commercial
19 operating date for Unit No. 1 of February 1, 1980, and
20 for Unit No. 2 of October 1, 1980. We are asking for
21 a procedure that includes a balancing account that
22 would permit adjustment of rates to correct for any
23 under-collections or over-collections under the Diablo
24 Canyon adjustment and the ECAC. The estimated costs
25 used in the application are just that--estimated
26 costs. The final adjustment will be based on recorded

1 figures, hence undue emphasis should not be placed on
2 estimating the time of beginning. If Diablo Canyon
3 Unit No. 1 is commercially operative before
4 December 1, 1979, the adjustment rate estimated at 2.7
5 mills per kwh could be reduced to reflect the lower
6 rate base just as the rate could be increased if Unit
7 No. 1 is not commercially operative until after
8 December, 1979. However in the final analysis, the
9 actual revenue produced at the rates based on such
10 estimates will be compared with the actual expenses
11 incurred and any adjustments required will be made as
12 set forth in the proposed tariff. This is the same
13 procedure as followed in the ECAC tariff and we
14 believe that the proposed adjustment procedure for the
15 initial operating years of Diablo Canyon Units 1 and 2
16 is the most fair to the ratepayer and PGandE.

17 Q. If the Commission should reject the adjustment
18 procedure and balancing account approach, what is your
19 proposal?

20 A. Under those circumstances, PGandE proposes that
21 the Commission in this proceeding authorize PGandE to
22 file the increased electric rates shown in this
23 exhibit to be effective when Diablo Units 1 and 2,
24 respectively, become commercially operative to offset
25 the increased costs related to operation of Diablo and
26 its inclusion in rate base, and to file decreased ECAC

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rates to become effective at the same time to reflect
the estimated reduction in fuel costs.

PRELIMINARY STATEMENT (Continued)

PART D

Diablo Canyon Adjustment Clause (DCAC)

No. 1 - Purpose:

The purpose of this DCAC provision is to reflect in rates pursuant to Section 792.5 of the Public Utilities Code any accumulated difference between the actual costs of owning and operating Diablo Canyon Power Plant and revenues resulting from the rates authorized by the California Public Utilities Commission (CPUC) for that purpose. Associated fuel costs will be reflected in the Energy Cost Adjustment Clause of this tariff. It is intended that this DCAC provision be temporary until base rates become effective which fully include the cost of owning and operating Diablo Canyon Power Plant and until any accumulated difference is amortized.

No. 2 - Applicability:

This DCAC provision applies to all rate schedules and contracts for electric service subject to the jurisdiction of the CPUC, except (a) for sales for which payment is made in fuel and (b) for sales to the California Department of Water Resources under present contracts. The DCAC provision does not apply to usage under Schedules Nos. D-40 and A-41.

No. 3 - DCAC Rate Revision:

The Utility shall file with the CPUC a new or revised DCAC Rate hereunder to become effective twelve months after this provision first becomes effective, and subsequently at twelve month intervals. When base rates become effective which fully include the costs of owning and operating Diablo Canyon Power Plant, entries under 5(b) of the Diablo Canyon Adjustment Account shall be pro-rated to the date such rates become effective and shall be discontinued with respect to subsequent periods and a filing of the DCAC Rate to amortize the balance in the Account shall be made.

No. 4 - DCAC Rates:

The amount hereunder to be added to or subtracted from each bill for electric service shall be the product of the total kilowatt hours for which the bill is rendered multiplied by the DCAC Rate. The DCAC Rate, to become effective for service on and after the date of each DCAC Rate Revision and continuing thereafter until the next succeeding DCAC Rate becomes effective, shall be the algebraic sum of a DCAC Offset Rate and a DCAC Balancing Rate, except that the initial DCAC Rate shall consist only of the DCAC Offset Rate. The DCAC Balancing Rate shall be a positive or negative amount per kilowatt hour of sales necessary to amortize the accumulated balance in the Diablo Canyon Adjustment Account. The DCAC Balancing Rate shall be determined by dividing (1) the balance in the Diablo Canyon Adjustment Account at the end of the latest available month at the time of the computation being made under the provisions hereof, by (2) the kilowatt hours estimated to be sold during the 12 month period beginning with the date of the next succeeding DCAC Rate Revision. The DCAC Offset Rate is _____ per kilowatt hour.

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No. 5 - Diablo Canyon Adjustment Account:

Commencing on the date that Diablo Canyon Power Plant becomes commercially operative or the date that DCAC Rates first become effective, whichever is sooner, the Utility shall maintain a Diablo Canyon Adjustment Account as a subaccount in CPUC Accounts Nos. 174 and 242. Entries shall be made to this account at the end of each month as follows:

- (a) A credit entry equal to, if positive (debit entry, if negative), the amount of revenue billed during the month under the DCAC Rate (not including the adjustment for franchise and uncollectible accounts expense).
- (b) A debit entry equal to, if positive (credit entry, if negative):
 - (1) All operation, maintenance, and insurance, injuries, and damages expenses (CPUC Accounts Nos. 517 through 532, 560 through 567, 924, and 925) at Diablo Canyon Power Plant (PGandE Locations Nos. 40 and 140) excluding fuel expenses debited to the Energy Cost Adjustment Account, plus
 - (2) Depreciation expense and return on investment on the average of the beginning and end of month balance of nuclear production, transmission, and general plant (CPUC Accounts Nos. 320 through 325, 350 through 359, and 389 through 399) at Diablo Canyon Power Plant (PGandE Locations Nos. 40 and 140) at one-twelfth the annual depreciation rates approved by the CPUC for those accounts and at one-twelfth of the annual rate of return on investment last adopted for the Utility's electric department by the CPUC, respectively, plus such return on the average of beginning and end of month net investment in nuclear fuel (net balance in CPUC Accounts Nos. 120.2 through 120.5) at Diablo Canyon Power Plant (PGandE Location No. 40) and prepaid nuclear fuel, minus such return on the average of beginning and end of month accumulated depreciation and deferred investment tax credit directly attributable to Diablo Canyon Power Plant nuclear production, transmission, and general plant and nuclear fuel, plus
 - (3) Taxes chargeable to CPUC Account No. 408.1, Taxes other than income taxes, utility operating income, on or related to plant set forth in item 5(b)(2) above in the month in which such taxes are actually paid, minus
 - (4) Any direct rents or other revenue received, other than from sale of electricity, associated with ownership or operation of Diablo Canyon Power Plant or its fuel, other than amounts credited to CPUC Account No. 120.5, plus
 - (5) Federal, state, and local taxes based on income associated with items 5 (b)(1), (b)(2), (b)(3) and (b)(4) above, calculated at marginal tax rates currently in effect, including all available statutory adjustments and flowthrough of differences between tax and book depreciation and fuel expenses, with interest cost at 3.55% of net investment, and with five-year average investment tax credit.
- (c) A debit entry equal to 7/12 percent of the average balance in this account and the balance in this account after entries 5(a) and 5(b) above, if average balance is debit (credit entry if average balance is credit).
- (d) It is intended that this account reflect only the balances to be amortized by rates for sales to which the DCAC Rate applies. For the purpose of determining entries to the Diablo Canyon Adjustment Account, items 5(b)(1), (2), (3) and (4) and the appropriate determinants of item 5(b)(5) above in any month shall be pro-rated to applicable jurisdictional sales by multiplying the respective amounts by 0.93.

POOR ORIGINAL

PACIFIC GAS AND ELECTRIC COMPANY

Results of Operations - 1978 Test Year - Decision 89316
Adjusted To Reflect Commercial Operating Date Unit No. 1 December 1, 1979
And Unit No. 2 - August 1, 1980
(000's Omitted)

Line No.	Total Electric		CPUC Jurisdictional Sales				Proposed ECAC Adjustment			Line No.
	Diablo Canyon Unit No. 1 Addition	Diablo Canyon Unit No. 2 Addition	Dec. No. 89316 at Authorized Rates (a)	Diablo Canyon Unit No. 1 Addition	Diablo Canyon Unit No. 2 Addition	Base Rates Adjusted	Diablo Canyon Unit No. 1	Diablo Canyon Unit No. 2	Adjusted	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	
1	167,438	131,622	2,000,011	155,758	122,438	2,278,207	(155,758)	(122,438)	2,000,011	1
	Operating Expenses									
2			831,951			831,951	(154,178)	(121,196)	556,577	2
3	4,621	4,843	90,128	4,298	4,504	98,930			98,930	3
4			13,318			13,318			13,318	4
5			109,423			109,423			109,423	5
6			44,553			44,553			44,553	6
7	551	434	4,367	551	434	5,352	(551)	(434)	4,367	7
8			6,479			6,479			6,479	8
9			6,655			6,655			6,655	9
10			13,134			13,134			13,134	10
11			6,716			6,716			6,716	11
12	1,863	1,507	100,945	1,733	1,402	104,080			104,080	12
13	1,106	869	12,636	1,029	808	14,473	(1,029)	(808)	12,636	13
14			2,153			2,153			2,153	14
15	8,140	7,653	1,229,324	7,611	7,148	1,244,083	(155,758)	(122,438)	965,887	15
16	35,705	29,211	162,270	33,206	27,166	222,642			222,642	16
17	6,284	4,899	116,603	5,844	4,556	127,003			127,003	17
18	8,240	6,308	24,541	7,663	5,866	38,070			38,070	18
19	22,664	14,895	87,588	21,078	13,852	122,518			122,518	19
20	81,034	62,966	1,620,326	75,402	58,588	1,754,316	(155,758)	(122,438)	1,476,120	20
21	86,404	68,656	379,685	80,356	63,850	523,891			523,891	21
22	909,517	722,695	3,996,682	845,850	672,106	5,514,638			5,514,638	22
23	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%			9.5%	23

(a) ECAC Revenues and ECAC Production Expenses and associated franchise and uncollectibles at rate of May 15, 1979 are included.

POOR ORIGINAL

PACIFIC GAS AND ELECTRIC COMPANY

Results of Operations - 1978 Test Year - Decision 89316
Adjusted To Reflect Commercial Operating Date Unit No. 1 February 1, 1980
And Unit No. 2 October 1, 1980
(000's Omitted)

Line No.	Total Electric		CPUC Jurisdictional Sales				Proposed ECAC Adjustment			Line No.
	Diablo Canyon Unit No. 1 Addition (A)	Diablo Canyon Unit No. 2 Addition (B)	Dec. No. 89316 at Authorized Rates (a) (C)	Diablo Canyon Unit No. 1 Addition (D)	Diablo Canyon Unit No. 2 Addition (E)	Base Rates Adjusted (F)	Diablo Canyon Unit No. 1 (G)	Diablo Canyon Unit No. 2 (H)	Adjusted (I)	
	1	171,331	135,341	2,000,011	159,378	125,898	2,285,287	(159,378)	(125,898)	
	Operating Expenses									
2	-	-	831,951	-	-	831,951	(157,760)	(124,621)	549,570	2
3	4,675	4,899	90,128	4,348	4,556	99,032			99,032	3
4			13,318			13,318			13,318	4
5			109,423			109,423			109,423	5
6			44,553			44,553			44,553	6
7	565	447	4,367	565	447	5,379	(565)	(447)	4,367	7
8			6,479			6,479			6,479	8
9			6,655			6,655			6,655	9
10			13,134			13,134			13,134	10
11			6,716			6,716			6,716	11
12	1,889	1,529	100,945	1,757	1,422	104,124			104,124	12
13	1,132	893	12,636	1,053	830	14,519	(1,053)	(830)	12,636	13
14			2,153			2,153			2,153	14
15	8,261	7,768	1,229,324	7,723	7,255	1,244,302	(159,378)	(125,898)	959,026	15
16	36,545	29,681	162,270	33,987	27,603	223,860			223,860	16
17	6,531	5,116	116,603	6,074	4,758	127,435			127,435	17
18	8,494	6,616	24,541	7,899	6,153	38,593			38,593	18
19	23,752	16,328	87,588	22,089	15,185	124,862			124,862	19
20	83,583	65,509	1,620,326	77,772	60,954	1,759,052	(159,378)	(125,898)	1,473,776	20
21	87,748	69,832	379,685	81,606	64,944	526,235			526,235	21
22	923,663	735,077	3,996,682	859,007	683,622	5,539,311			5,539,311	22
23	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%			9.5%	23

(a) ECAC Revenues and ECAC Production Expenses and associated franchise and uncollectibles at rate of May 15, 1979 are included.

POOR ORIGINAL

PACIFIC GAS AND ELECTRIC COMPANY

Results of Operations - 1980 Test Year - Application 58545
Adjusted To Reflect Commercial Operating Date Unit No. 1 December 1, 1979
And Unit No. 2 - August 1, 1980
(000's Omitted)

Line No.	Total Electric		At Proposed Base Rates (C)		CPUC Jurisdictional Sales		Proposed ECAC Adjustment		Line No.	
	Diablo Canyon Unit No. 1 Addition (A)	Diablo Canyon Unit No. 2 Addition (B)	Diablo Canyon Unit No. 1 Addition (D)	Diablo Canyon Unit No. 2 Addition (E)	Diablo Canyon Unit No. 1 Addition (G)	Diablo Canyon Unit No. 2 Addition (H)	Diablo Canyon Unit No. 1 Addition (I)	Diablo Canyon Unit No. 2 Addition (J)		
1	167,438	131,622	1,426,631	122,438	155,758	1,704,827	(155,758)	(122,438)	1,426,631	1
Operating Expenses										
Production Expenses -										
ECAC										
2										
3	4,621	4,843	124,566	4,298	4,504	133,368	(154,178)	(121,196)	(275,374)	2
4			16,873			16,873			16,873	3
5			131,912			131,912			131,912	4
6			51,752			51,752			51,752	5
7	551	434	2,244	551	434	3,229	(551)	(434)	2,244	6
Customer Services and Informational Expenses										
8			24,810			24,810			24,810	7
9			29,518			29,518			29,518	8
Load Management										
10	1,863	1,507	126,050	1,733	1,402	129,185			129,185	9
11	1,106	869	9,072	1,029	808	10,909	(1,029)	(808)	9,072	10
12			5,049			5,049			5,049	11
Administrative and General Expense										
13	8,141	7,653	521,846	7,611	7,148	536,605	(1,560)	(1,242)	533,783	12
Sub-Total										
14	35,705	29,211	192,219	33,206	27,166	252,591			252,591	13
15	6,284	4,899	80,773	5,844	4,556	91,173			91,173	14
Taxes Other Than Income										
16	8,240	6,308	34,590	7,663	5,866	48,119			48,119	15
17	22,664	14,895	119,190	21,078	13,852	154,120			154,120	16
Federal Income Tax										
18	81,034	62,966	948,618	75,402	58,588	1,082,608	(155,758)	(122,438)	804,412	17
Total Operating Expenses										
19	86,404	68,556	478,013	80,356	63,850	622,219			622,219	18
Net Operating Revenues										
20	909,517	722,695	4,463,239	845,850	672,106	5,981,195			5,981,195	19
Rate Base										
21	9.5	9.5	10.71	9.5	9.5	10.40			10.40	20
Rate of Return										

PACIFIC GAS AND ELECTRIC COMPANY

Results of Operations - 1980 Test Year - Application 58545
Adjusted To Reflect Commercial Operating Date Unit No. 1 February 1, 1980
And Unit No. 2 - August 1, 1980
(000's Omitted)

Line No.	Total Electric		CPUC Jurisdictional Sales				Proposed ECAC Adjustment			Line No.
	Diablo Canyon Unit No. 1 Addition (A)	Diablo Canyon Unit No. 2 Addition (B)	At Proposed Base Rates (C)	Diablo Canyon Unit No. 1 Addition (D)	Diablo Canyon Unit No. 2 Addition (E)	Total (F)	Diablo Canyon Unit No. 1 (G)	Diablo Canyon Unit No. 2 (H)	Adjusted (I)	
	1	171,331	135,341	1,426,631	159,378	125,892	1,711,901	(159,378)	(125,892)	
	Operating Expenses									
2							(157,760)	(124,615)	(282,375)	2
3										
4	4,675	4,899	124,566	4,348	4,556	133,470			133,470	3
5			16,873			16,873			16,873	4
6			131,912			131,912			131,912	5
7			51,752			51,752			51,752	6
8	565	447	2,244	565	447	3,256	(565)	(447)	2,244	7
9			24,810			24,810			24,810	8
10			29,518			29,518			29,518	9
11	1,889	1,529	126,050	1,757	1,422	129,229			129,229	10
12	1,132	893	9,072	1,053	830	10,955	(1,053)	(830)	9,072	11
13			5,049			5,049			5,049	12
14	8,261	7,768	521,846	7,723	7,255	536,824	(1,618)	(1,277)	533,929	13
15	36,545	29,681	192,219	33,987	27,603	253,809			253,809	14
16	6,531	5,116	80,773	5,074	4,758	91,605			91,605	15
17	8,494	6,616	34,590	8,899	6,153	48,642			48,642	16
18	23,752	16,328	119,190	22,089	15,185	156,464			156,464	17
19	83,583	65,509	948,618	77,772	60,954	1,087,344	(159,378)	(125,892)	802,074	18
20	87,748	69,832	478,013	81,606	64,938	624,557			624,557	19
21	923,663	735,077	4,463,239	859,007	683,622	6,005,868			6,005,868	20
22	9.5	9.5	10.71			10.4			10.4	21

POOR ORIGINAL

PACIFIC GAS AND ELECTRIC COMPANY

Diablo Canyon Adjustment
 Computation of Allocation Factors CPUC - FERC established in Application 98545

Thermal Production

Item	Total Cost Demand and Energy \$M	FERC		CPUC	
		Demand 6.94% Energy 4.47% \$M	%	\$M	%
Maintenance and Operation Including Rents, Excluding Fuel	55,731	3,338	5.99	52,303	94.01
Administrative and General Expense	18,244	1,099	6.02	17,145	93.98
Payroll Taxes	2,907	171	5.88	2,736	94.16
Property Taxes	12,792	888	6.94	11,904	93.06
Depreciation	38,048	2,641	6.94	35,407	93.06
Rate Base	1,188,553	82,043	6.90	1,106,510	93.10

Because of the large capital expenditure for Diabie Canyon it has been decided to make the jurisdictional allocation follow the capital related expenses such as property, taxes and depreciation. The factor 93% of CPUC jurisdiction has been used.

Diablo Canyon Adjustment

Estimate of Fuel Saving

Unit No. 1 Commercial Operating Date December 1, 1979

Unit No. 2 Commercial Operating Date August 1, 1980

	<u>Capacity KW</u>	<u>Annual Generation 65% C.F. MKwh</u>	<u>Fuel Differential Oil-Nuclear Mills per Kwh</u>	<u>Annual Fuel Saving \$</u>	<u>Annual System Sales MKwh</u>	<u>Fuel Saving Mills per Kwh of Sales</u>
With Oil at \$17.00 per bbl (26.6 mills per kwh) and Nuclear at 6.2 mills per kwh						
Unit No. 1	1,084,000	6,172,296	20.4	125,915,000	61,458,000	2.049
Unit No. 2	1,106,000	6,297,564	20.4	128,470,000	63,195,000	2.033
With Oil at \$21.50 per bbl (33.6 mills per kwh) and Nuclear at 6.2 mills per kwh						
Unit No. 1	1,084,000	6,172,296	27.4	169,121,000	61,458,000	2.752
Unit No. 2	1,106,000	6,297,564	27.4	172,553,000	63,195,000	2.730

PACIFIC GAS AND ELECTRIC COMPANY
 DIABLO CANYON ADJUSTMENT
 COMPUTATION OF OFFSET ADJUSTMENT

Unit No. 1-Commercial Operating Date-December 1, 1979
 Unit No. 2-Commercial Operating Date-August 1, 1980

<u>Unit No. 1</u>	<u>Total System</u>	<u>CPUC Jurisdictional</u>
1. Sales - M ² Kwh	61,458	58,887
2. Sales adjusted for DWR, etc. M ² Kwh		56,780
3. Revenue Requirement- \$M	167,438	155,758
Adjustment (Line 3 + Line 2) Mills per Kwh		2.743

<u>Unit No. 2</u>	<u>Total System</u>	<u>CPUC Jurisdictional</u>
1. Sales - M ² Kwh	63,195	60,291
2. Sales adjusted for DWR etc. M ² Kwh		58,236
3. Revenue Requirement- \$M	131,622	122,438
Adjustment (Line 3 + Line 2) Mills per Kwh		2.102

Sales Adjusted for Department of Water Resources, DS, DE and DT.

PACIFIC GAS AND ELECTRIC COMPANY
 DIABLO CANYON ADJUSTMENT
 COMPUTATION OF OFFSET ADJUSTMENT

Unit No. 1-Commercial Operating Date-February 1, 1980
 Unit No. 2-Commercial Operating Date-October 1, 1980

<u>Unit No. 1</u>	<u>Total System</u>	<u>CPUC Jurisdictional</u>
1. Sales - M ² Kwh	61,959	59,212
2. Sales adjusted for DWR, etc. M ² Kwh		57,120
3. Revenue Requirement- \$M	171,331	159,378
Adjustment (Line 3 + Line 2) Mills per Kwh		2.790

<u>Unit No. 2</u>	<u>Total System</u>	<u>CPUC Jurisdictional</u>
1. Sales - M ² Kwh	63,694	60,720
2. Sales adjusted for DWR etc. M ² Kwh		58,635
3. Revenue Requirement- \$M	135,341	125,898
Adjustment (Line 3 + Line 2) Mills per Kwh		2.147

Sales Adjusted for Department of Water Resources, DS, DE and DT.