ALJ/MEG/cac *

Decision 89 06 048 JUN 21 1989

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Second application of Pacific Gas and Electric Company for approval of certain standard offers pursuant to Decision 82-01-103 in Order Instituting Rulemaking No. 2.	Application 82-04-44 (Filed April 21, 1982; amended April 28, 1982, July 19, 1982, July 11, 1983, August 2, 1983, and August 21, 1986)
	Application 82-04-46
	Application 82-04-47
	Application 82-03-26
And Related Matters.	Application 82-03-37
	Application 82-03-62
	Application 82-03-67
	Application 82-03-78
	Application 82-04-21

O P I N I O N

I. Summary

We adopt a floor/ceiling methodology, modified in response to comments on an earlier proposal, to calculate the short-term Energy Reliability Index (ERI) for Pacific Gas and Electric Company (PG&E).

Until further action by this Commission, PG&E's short-term ERI will have a ceiling of 1.0 and a floor of 0.4. The ceiling price will be paid whenever PG&E's projected reserve margin for the forecast year is equal to or less than the target reserve margin established in the most recent Electricity Report of the California Energy Commission (CEC). The ERI will decline exponentially as the projected reserve margin increases above the

target, until the projected reserve margin is six percentage points over the target. At or beyond that point, the ERI will be the floor value of 0.4.

Our adopted floor/ceiling approach should be used consistently for all applications involving short-term capacity valuation on PG&E's system, including pricing for as-available qualifying facilities (QFs), forecasts of energy-related revenue requirements, revenue allocation, and rate design.

II. Background

By Decision (D.) 82-12-120, D.83-10-093, and D.84-03-092, we made Standard Offer 1 (SO1) and Standard Offer 3 (SO3) available to qualifying facilities for the purchase of "as-available" energy and capacity.[1] Payments under these offers

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1 In addition, we made available Standard Offer 2 (SO2), our "firm" capacity offer. Since we refer to SO1, SO2, and SO3 throughout this order, a brief description of their purpose and payment terms should prove useful to the unfamiliar reader.

SO1 and SO3 were designed for QFs that could only commit to deliveries on an as-available basis. SO3 is similar to SO1, except for simplified requirements for small (under 100 kW) facilities. Unlike SO1 and SO3, SO2 was designed for QFs that could commit firm capacity to the system and meet certain performance requirements.

These three offers are referred to as our "short-run" offers, because the energy price is computed on the basis of the purchasing utility's existing generation resources. In calculating the energy prices for SO1, SO2, and SO3 we do not consider possible resource additions. Energy prices are updated periodically and fluctuate over the term of the contract.

SO1 (and SO3) capacity prices depend on short-term forecasts of the utility's loads and resources. Like the energy price, the capacity price varies over the term of the contract.

(Footnote continues on next page)

consist of energy and capacity components. The energy price component reflects the short-run operating costs that a utility would incur, if not for the presence of QFs.[2] The capacity component represents the value that QFs contribute to system reliability. This component is commonly referred to as "shortage value" or "shortage costs".

A. Energy Reliability Index

Our starting point for measuring shortage value is the cost of the utility's marginal capacity investment, assumed to be a combustion turbine (CT). The cost of a CT is then adjusted by an ERI to reflect system capacity needs.[3] The ERI capacity value adjustment is calculated using either short-term or long-term forecasts of utility loads and resources, depending on the type of standard offer.[4] Short-term ERIs are updated annually in the

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(Footnote continued from previous page)

In contrast, SO2 capacity prices are fixed (and levelized) for the whole term of the contract (up to 30 years). They are based on long-term forecasts of the utility's loads and resources.

2 This order addresses issues relating only to the capacity price component; we therefore do not discuss the energy component in any detail. For a brief description of its derivation, see D.86-05-024, pp. 2-3.

3 The first ERI was adopted in PG&E's test year 1984 general rate case, D.83-12-068 in Application (A.) 82-12-048. For the subsequent consideration of that ERI and other approaches to capacity value adjustment, see D.86-07-004, pp. 27-30, 81; D.86-11-071, pp. 1-17; and D.88-03-079, pp. 3-18.

4 As described in Footnote 1 above, capacity payments under our as-available offers (SO1 and SO3) are based on ERI calculations using short-term forecasts of loads and resources. Capacity payments under SO2 and our "long-run" final Standard Offer 4 are based on ERI calculations using long-term forecasts.

Energy Cost Adjustment Clause (ECAC) proceedings. Long-term ERIs are updated as part of the Biennial Resource Plan Update (BRPU) in A.82-04-44 et al.[5]

To date, we have adopted methods for calculating the long-term ERIs for PG&E, Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E).[6] We have also adopted methods for calculating short-term ERIs for SCE and SDG&E. However, in D.88-03-079, we deferred final adoption of a short-term method for PG&E. Instead, we continued the use of PG&E's 1987 capacity price for 1988, and requested comments on our "floor/ceiling" proposal (see below).[7]

B. Our Floor/Ceiling Proposal For PG&E

Our floor/ceiling proposal in D.88-03-079 for PG&E's short-term capacity adjustments includes the following elements (see Appendix A, Figure 1A):

1. The ERI would have a ceiling of 1.0 and a floor of 0.4.

2. The ceiling price would be paid whenever PG&E's projected reserve margin for the forecast year (as determined in a PG&E ECAC proceeding) would be equal to or less than the target reserve margin established in the most recent Electricity Report of the CEC.

3. The ERI would decline linearly as the projected reserve margin increased above the target, until the projected reserve

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5 See D.88-03-026, Table A and D.88-03-079, pp. 6-8.

6 In D.88-03-079, we directed SDG&E and SCE to adjust the capacity cost of a CT using an ERI based on expected unserved energy. We directed PG&E to use a CEC-based Target Reserve Margin method. See D.88-03-079, pp. 6-8, 18.

7 D.88-03-079, pp. 16-18.

> margin is six percentage points over the target. At or beyond that point, the ERI would be the floor value of 0.4.

On April 7, 1989, at a prehearing conference in A.82-04-44 et al., the assigned administrative law judge (ALJ) reiterated our request for comments on this proposal. Comments were filed on April 28, 1989 by PG&E, SCE, SDG&E, the Division of Ratepayer Advocates (DRA), and Unocal Corporation/Freeport-McMoRan Resource Partners/Santa Fe Geothermal, Inc. (U/F/S).[8]

III. Position of the Parties

A. PG&E

PG&E does not support the use of an ERI approach for capacity valuation. PG&E prefers a method that attempts to directly quantify the costs incurred by customers during an outage, rather than approximating them with an ERI adjusted CT proxy. PG&E intends to file a detailed description of its preferred methodology, based on a "value of service" approach, in Phase 3 of the BRPU.

As an interim measure, however, PG&E supports the Commission's floor/ceiling proposal with certain modifications. Specifically, PG&E objects to the concept of a floor price and would prefer eliminating it altogether. PG&E argues that a floor price encourages premature development of and overpayments for capacity, and results in unnecessarily high costs to PG&E's ratepayers.

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8 SCE and SDG&E filed comments stating their understanding that the floor/ceiling proposal applies only to PG&E, and does not affect prior Commission decisions on the short-term ERI methodology for their service territories. We confirm that understanding; our decision today applies only to PG&E.

If the Commission determines that a floor is necessary, PG&E recommends that a floor of 0.2 be adopted. PG&E states that the Commission's proposed 0.4 floor was based on the cost of refurbishing San Diego's Silver Gate unit relative to the cost of a new gas turbine. In PG&E's view, a minimum ERI value for its system should be based on the costs of operating PG&E-owned units, rather than the costs incurred by another utility. PG&E derives the 0.2 floor based on the costs of operating PG&E units that recently have been on cold standby.

PG&E also urges the Commission to replace the linear decline with an exponential one. PG&E argues that the exponential decline is only slightly more difficult to calculate than the linear decline, and more closely reflects the relationship between reliability measures and reserve margins. Figure 1B in Appendix A presents PG&E's proposed version of the floor/ceiling method.

B. DRA

In general, DRA supports the ERI valuation approach underlying our floor/ceiling proposal, and considers it premature to consider a value-of-service methodology for short-term capacity value adjustments. However, DRA would eliminate the floor altogether. DRA recommends a methodology proposed by SCE earlier in this proceeding for calculating the ERI within a 1 to 0 value range.[9]

Specifically, under DRA's proposal, the ERI would decrease linearly starting at one and continuing to zero at a point five percent above the CEC target reserve margin. (See Appendix A, Figure 1C.) DRA argues that the SCE methodology is preferable to the Commission's proposal because the latter appears to overvalue

9 SCE's ERI proposal was presented in Exhibit 205, pp. III-1 to III-5.

capacity. DRA recommends that this approach be adopted until further refinements can be made in later phases of the BRPU.

C. U/F/S

In U/S/F's opinion, there is no merit in adopting any interim methodology at this time. U/S/F argues that the consideration and adoption of a definitive methodology should be dealt with in Phase 3 of the BRPU. In the interim, U/S/F supports the continued use of PG&E's 1987 price for as-available capacity payments to QFs.

IV. Discussion

Capacity payments for PG&E's SO1 and SO3 are currently fixed at $42 per kilowatt (kW), based on a capacity value adjustment we approved in D.83-12-068. This price is outdated for several reasons. First, it is derived from an ERI method that we have subsequently rejected.[10] Second, the ERI itself is based on projections of PG&E's loads and resources presented over five years ago. And finally, the cost of a CT, to which the ERI is applied, is based on estimates that are over two years old. We conclude that PG&E's as-available capacity price should be updated, even on an interim basis.

We now turn to the specific criticisms of our original floor/ceiling proposal. PG&E and DRA are opposed to the concept of a floor payment; they argue that a floor results in overpayments to QFs. However, both DRA and PG&E ignore the possibility that an ERI ceiling of one could result in underpayments to QFs. They presume

10 See D.86-11-071, mimeo. at 6 (Footnote 4), where we describe our "rejection" of the loss-of-load probability (LOLP) target.

that the full cost of a CT is the appropriate maximum value for shortage costs.[11]

This presumption violates a long line of Commission determinations. In D.82-12-120, we rejected an earlier PG&E proposal because it did not recognize that shortage costs could be greater than the full cost of a CT:

> "One important conceptual flaw is that the ERI method is biased because it allows for downward adjustments in the shortage cost proxy when reserve margins are above target levels, but does not allow for upward adjustments in years in which reserve margins are below target levels. We agree with Occidental and IEP that such upward adjustments should be a part of any precise shortage cost methodology. "

> "Clearly, as noted earlier, the CT is a proxy for the equilibrium or average shortage cost value. Actual shortage costs will vary above and below the equilibrium value, due to the "lumpiness" of powerplant capacity additions. This circumstance is especially true in the case of shortage costs for the near term, a time frame in which unexpected demand increases cannot be met with new plant construction." (D.82-12-120, mimeo. p. 89.)

Our subsequent orders conform to these findings. In D.83-12-068, PG&E's ERI was set at 2.0 for the 1984 test year.[12] In D.85-12-108, we again rejected an approach (this time proposed

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11 For example, in describing its value-of-service methodology, PG&E states: "...the gas turbine is used only to provide a ceiling on long-term reliability value because gas turbines or cheaper alternatives would always be justified if reliability value exceeds gas turbine cost." See Comments of PG&E, p. 4.

12 The ERI was actually greater than 2.0; we adopted DRA's ceiling of 2.0 for a five-year period (our estimated "average" lead time for construction of a gas turbine). See D.83-12-068, pp. 342-346.

by our staff) to impose an ERI limit of 1.0. We agreed with Independent Power Producers that the staff's proposal was contrary to prior Commission decisions.[13] Finally, as we noted in D.88-03-079, "the ceiling price will result in capacity underpayments in virtually any dry year, no matter how large the apparent capacity surplus on PG&E's system."[14]

As described above, we have already determined in this and related proceedings that shortage costs can be greater than the full cost of a CT. Any proposal to impose an ERI ceiling of one (without a floor above zero) would clearly suffer from the same conceptual flaw we outlined in D.82-12-120.[15] We therefore reject from any further consideration DRA's proposal (and PG&E's preference) to remove the floor.

PG&E's alternative recommendation is that we lower the floor to 0.2 to reflect the cost of bringing one of its own units out of cold standby. While we clearly derived our proposed floor from refurbishment costs that were on the record, we did not intend to link the floor with those costs forever, irrespective of what they might be in the future. To do so would overlook the primary purpose of the floor, namely, to insure that potential

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13 D.85-12-108, pp. 84-86.

14 See D.88-03-079, p. 17 and Exhibit 454.

15 We might add that any proposal to impose just a "floor" (without a ceiling) would suffer from a similar flaw.

"underpayments" to QFs resulting from the ceiling are balanced by evenly distributed "overpayments" over time.[16]

In this and related proceedings, we have seen estimates of short-term ERI's for PG&E range from under 0.1 to over 2.0.[17] We are not persuaded by PG&E's arguments that a floor of 0.2 (as opposed to 0.4) more appropriately bounds the possible range of ERI values for its system. Therefore, we will continue the floor/ceiling range of 0.4 to 1.0 until we can examine additional facts during Phase 3 of the BRPU.

Lastly, PG&E proposes that we replace the linear decline with an exponential one. In D.88-03-079, we acknowledged that probabilistic measures of reliability vary exponentially in relation to changes in loads or resources.[18] We also expressed our preference for an exponential relationship in our review of specific ERI proposals.[19] As PG&E points out, given a fixed ERI ceiling and floor, the exponential decline is only slightly more difficult to calculate than the linear decline. For these reasons,

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16 We also question PG&E's assumption that units in "cold standby" are comparable to "refurbishments" for the purpose of establishing a floor. A refurbished unit is one that has been overhauled and placed back into service more efficient than when it was removed. Standby units, on the other hand, are units that have been mothballed temporarily, usually due to overcapacity on the system.

17 In addition to the above referenced proceedings, see Exhibit 454 in this proceeding. We also note that the estimates of PG&E's ERI for 1990 in the pending general rate case range from less than .20 (PG&E) to over 1.0 (DRA). PG&E's apparent concern that its 1990 ERI will be lower than .4 is insufficient reason to lower the proposed floor. See Exhibits 16-A and 138-A in A.88-12-005.

18 D.88-03-079, mimeo. at 13.

19 See D.86-05-024, mimeo. at 20.

we find it appropriate to modify our floor/ceiling proposal to incorporate an exponential decline. (See Appendix A, Figure 1D.)[20]

Our floor/ceiling proposal, as modified above, will be used to calculate short-term ERI's for PG&E until further notice.[21] This floor/ceiling methodology should be used consistently for all applications involving short-term capacity valuation on PG&E's system, including pricing for as-available QFs, forecasts of energy-related revenue requirements (in ECACs), revenue allocation, and rate design.

Findings of Fact

1. Shortage value (or shortage costs) represents the value that QFs contribute to system reliability.

2. The ERI is used to adjust the cost of a CT for the purpose of measuring shortage costs on an electric utility's system.

3. "Short-term" ERIs are based on short-term forecasts of the utility's loads and resources. Short-term ERIs are used to develop capacity payments for our as-available Standard Offers 1 and 3.

4. In D.88-03-079, we deferred final adoption of a short-term ERI method for PG&E. We requested comments on our proposed "floor/ceiling" method.

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20 The formula for the exponential decline is as follows:

ERI = .2**r/10.5
r = percentage points above reserve target
At r = 6, ERI = .4 and at r = 0, ERI = 1.

21 We plan to revisit this and other ERI-related issues in Phase 3 of the Biennial Resource Plan Update proceeding. See ALJ Ruling dated April 19, 1989, Appendix B.

5. Under our floor/ceiling proposal: (1) the ERI would have a ceiling of 1.0 and a floor of 0.4; (2) the ceiling price would be paid whenever PG&E's projected reserve margin for the forecast year was equal to or less than the target reserve margin established in the CEC's most recent Electricity Report; (3) the ERI would decline linearly until the projected reserve margin was six percentage points over the target and (4) at or beyond that point, the ERI would be the floor value of 0.4

6. Comments on our proposal were filed on April 28, 1989 by PG&E, SCE, SDG&E, DRA, and U/F/S.

7. Current short-term capacity payments for PG&E's SO1 and SO3 are fixed at $42 per kW, based on (1) an ERI method that this Commission subsequently rejected in D.86-11-071; (2) projections of PG&E's loads and resources presented over five years ago; and (3) estimates of CT costs that are over two years old.

8. In D.82-12-120, we recognized that shortage costs could be greater than the full cost of the CT, and rejected an earlier PG&E proposal because it established 1.0 as the maximum ERI level.

9. DRA's proposal to impose an ERI ceiling of 1.0 (without a floor above zero) would impose a downward bias to the ERI.

10. The primary purpose of a floor is to insure that potential "underpayments" resulting from the ceiling of 1.0 are balanced by evenly distributed "overpayments" over time.

11. Estimates of short-term ERIs for PG&E have ranged from under 0.1 to over 2.0 in this and related proceedings.

12. PG&E has not demonstrated that a floor of 0.2 (with a ceiling of 1.0) provides a more appropriate range than 0.4 to 1.0 to bound the possible ERI values for its system.

13. In D.86-05-024, we expressed our preference for an exponential relationship in our review of specific ERI proposals.

14. In D.86-05-024, we acknowledged that probabilistic measures of reliability vary exponentially in relation to changes in loads or resources.

15. With a fixed ERI ceiling and floor, the exponential decline is only slightly more difficult to calculate than the linear decline.

Conclusions of Law

1. A floor/ceiling of 0.4 to 1.0 is a reasonable bound for the possible range of ERI values for PG&E's system.

2. It is reasonable to incorporate an exponential decline into our floor/ceiling proposal.

3. Until further Commission directives, our floor/ceiling ERI proposal, as modified by this order, should be used consistently for all applications involving short-term capacity valuation on PG&E's system.

4. Refinements to our methods for determining PG&E's short-term ERI and other ERI-related issues should be revisited during Phase 3 of the BRPU.

O R D E R

IT IS ORDERED that:

1. The following Energy Reliability Index (ERI) floor/ceiling methodology will be used to calculate short-term capacity value adjustments for Pacific Gas and Electric Company (PG&E) until further notice:

   a. The ERI will have a ceiling of 1.0 and a floor of 0.4.

   b. The ceiling price will be paid whenever PG&E's projected reserve margin for the forecast year is equal to or less than the target reserve margin established in the California Energy Commission's most recent Electricity Report.

   c. The ERI will decline exponentially until the projected reserve margin is six percentage points over the target, according to the formula:

ERI = 0.2 raised to the power (r/10.5), where r = projected reserve margin less target reserve margin, expressed in percent.

d. At or beyond that point, the ERI will be the floor value of 0.4.

2. PG&E shall submit late-filed exhibits in its current Energy-Cost Adjustment Clause and test year 1990 General Rate Case proceedings to conform its showings on marginal costs, revenue requirements, and others as appropriate, to the ERI approach adopted in this order.

This order is effective today.

Dated June 21, 1989, at San Francisco, California.

G. MITCHELL WILK
President
FREDERICK R. DUDA
STANLEY W. HULETT
JOHN B. OHANIAN
PATRICIA M. ECKERT
Commissioners

I CERTIFY THAT THIS DECISION WAS APPROVED BY THE ABOVE COMMISSIONERS TODAY.

Victor Weisser, Executive Director

APPENDIX A

FIGURE 1A

FLOOR/CEILING ERI CALCULATION
(Proposed)

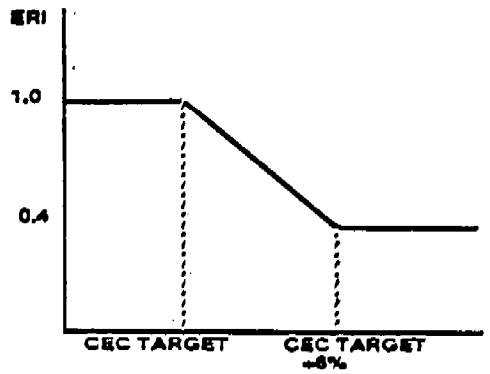


FIGURE 1B

MODIFIED FLOOR/CEILING ERI CALCULATION WITH 0.2 FLOOR AND EXPONENTIAL DECLINE
(PG&E)

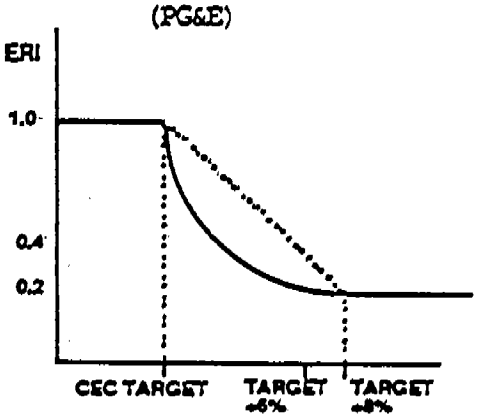


FIGURE 1C

MODIFIED FLOOR/CEILING ERI CALCULATION WITH NO FLOOR
(DRA)

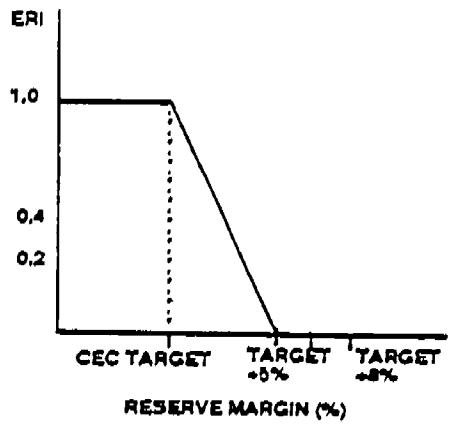
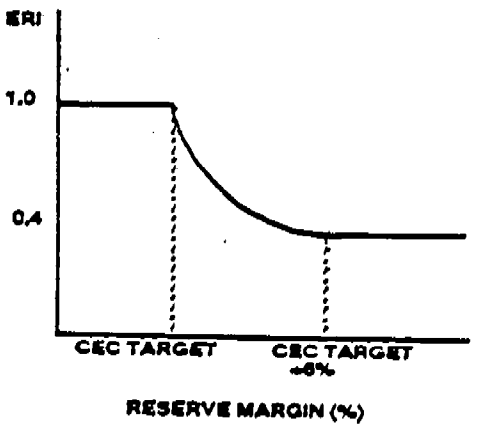


FIGURE 1D

FLOOR/CEILING ERI CALCULATION
(Adopted)



(END OF APPENDIX A)

Decision _____

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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O P I N I O N

I. Summary

We adopt a floor/ceiling methodology to calculate the short-term Energy Reliability Index (ERI) for Pacific Gas and Electric Company (PG&E).

Until further action by this Commission, PG&E's short-term ERI will have a ceiling of 1.0 and a floor of 0.4. The ceiling price will be paid whenever PG&E's projected reserve margin for the forecast year is equal to or less than the target reserve margin established in the most recent Electricity Report of the California Energy Commission (CEC). The ERI will decline exponentially as the projected reserve margin increases above the

Energy Cost Adjustment Clause (ECAC) proceedings. Long-term ERIs are updated as part of the Biennial Resource Plan Update (BRPU) in A.82-04-044 et al.[5]

To date, we have adopted methods for calculating the long-term ERIs for PG&E, Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E).[6] We have also adopted methods for calculating short-term ERIs for SCE and SDG&E. However, in D.88-03-079, we deferred final adoption of a short-term method for PG&E. Instead, we continued the use of PG&E's 1987 capacity price for 1988, and requested comments on our "floor/ceiling" proposal (see below).[7]

B. Our Floor/Ceiling Proposal For PG&E

Our floor/ceiling proposal for PG&E's short-term capacity adjustments includes the following elements (see Appendix A, Figure 1A):

1. The ERI would have a ceiling of 1.0 and a floor of 0.4.

2. The ceiling price would be paid whenever PG&E's projected reserve margin for the forecast year (as determined in a PG&E ECAC proceeding) would be equal to or less than the target reserve margin established in the most recent Electricity Report of the CEC.

3. The ERI would decline linearly as the projected reserve margin increased above the target, until the projected reserve

5 See D.88-03-026, Table A and D.88-03-079, pp. 6-8.

6 In D.88-03-079, we directed SDG&E and SCE to adjust the capacity cost of a CT using an ERI based on expected unserved energy. We directed PG&E to use a CEC-based Target Reserve Margin method. See D.88-03-079, pp. 6-8, 18.

7 D.88-03-079, pp. 16-18.

> margin is six percentage points over the target. At or beyond that point, the ERI would be the floor value of 0.4.

On April 7, 1989, at a prehearing conference in A.82-04-044 et al., the assigned administrative law judge (ALJ) reiterated our request for comments on this proposal. Comments were filed on April 28, 1989 by PG&E, SCE, SDG&E, the Division of Ratepayer Advocates (DRA), and Unocal Corporation/Freeport-McMoRan Resource Partners/Santa Fe Geothermal, Inc. (U/F/S).[8]

III. Position of the Parties

A. PG&E

PG&E does not support the use of an ERI approach for capacity valuation. PG&E prefers a method that attempts to directly quantify the costs incurred by customers during an outage, rather than approximating them with an ERI adjusted CT proxy. PG&E intends to file a detailed description of its preferred methodology, based on a "value of service" approach, in Phase 3 of the BRPU.

As an interim measure, however, PG&E supports the Commission's floor/ceiling proposal with certain modifications. Specifically, PG&E objects to the concept of a floor price and would prefer eliminating it altogether. PG&E argues that a floor price encourages premature development of and overpayments for capacity, and results in unnecessarily high costs to PG&E's ratepayers.

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8 SCE and SDG&E filed comments stating their understanding that the floor/ceiling proposal applies only to PG&E, and does not affect prior Commission decisions on the short-term ERI methodology for their service territories. We confirm that understanding; our decision today applies only to PG&E.

15. With a fixed ERI ceiling and floor, the exponential decline is only slightly more difficult to calculate than the linear decline.

Conclusions of Law

1. A floor/ceiling of 0.4 to 1.0 is a reasonable bound for the possible range of ERI values for PG&E's system.

2. It is reasonable to incorporate an exponential decline into our floor/ceiling proposal.

3. Until further Commission directives, our floor/ceiling ERI proposal, as modified by this order, should be used consistently for all applications involving short-term capacity valuation on PG&E's system.

4. Refinements to our methods for determining PG&E's short-term ERI and other ERI-related issues should be revisited during Phase 3 of the BRPU.

ORDER

IT IS ORDERED that:

1. The following Energy Reliability Index (ERI) floor/ceiling methodology will be used to calculate short-term capacity value adjustments for Pacific Gas and Electric Company (PG&E) until further notice:

   a. The ERI will have a ceiling of 1.0 and a floor of 0.4.

   b. The ceiling price will be paid whenever PG&E's projected reserve margin for the forecast year is equal to or less than the target reserve margin established in the California Energy Commission's most recent Electricity Report.

   c. The ERI will decline exponentially until the projected reserve margin is six percentage points over the target.

d. At or beyond that point, the ERI will be the floor value of 0.4.

2. PG&E shall submit late-filed exhibits in its current Energy-Cost Adjustment Clause and test year 1990 General Rate Case proceedings to conform its showings on marginal costs, revenue requirements, and others as appropriate, to the ERI approach adopted in this order.

This order is effective today.

Dated JUN 21 1989, at San Francisco, California.

G. MITCHELL WILK
President
FREDERICK R. DUDA
STANLEY W. HULETT
JOHN B. OHANIAN
PATRICIA M. ECKERT
Commissioners