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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Rio Bravo Rocklin, Complainant, vs. Pacific Gas and Electric Company (U 39 E) Defendant.	**C. 10-07-020**

PACIFIC GAS AND ELECTRIC COMPANY'S (U 39-E) MOTION TO DISMISS COMPLAINT OF RIO BRAVO ROCKLIN

CHARLES R. MIDDLEKAUFF
EVELYN C. LEE

Pacific Gas and Electric Company
77 Beale Street, B30A
San Francisco, CA 94105

Telephone: (415) 973-2786
Facsimile: (415) 973-5520
E-Mail: ECL8@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

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PACIFIC GAS AND ELECTRIC COMPANY'S MOTION TO DISMISS COMPLAINT OF RIO BRAVO ROCKLIN

Pursuant to Rule 11.2 of the California Public Utilities Commission's ("CPUC" or "Commission") Rules of Practice and Procedure, Pacific Gas and Electric Company ("PG&E") hereby moves to dismiss the Complaint of Rio Bravo Rocklin ("Rio Bravo" or "Complainant") for failure to state a claim upon which relief can be granted. Rio Bravo and PG&E are parties ("Parties") to a Standard Offer 4 ("SO4") power purchase agreement ("PPA"). In its Complaint, Rio Bravo has demanded that PG&E remit $2,000,320 in retroactive capacity payments to prevent PG&E's "unjust enrichment" under the Parties' PPA. Rio Bravo asserts that as a result of PG&E's failure to notify Rio Bravo that its generating facility was no longer remote, Rio Bravo did not receive the higher capacity payments paid to non-remote facilities under the Commission's SO4 capacity loss adjustment factor ("CLAF") methodology. However, Complainant has not alleged that PG&E has violated any law or order of the Commission; Complainant's equitable theory is not available because the rights of the Parties are governed by

the terms of their PPA; and Complainant has failed to allege any triable issues of material fact. PG&E has concurrently filed its Answer challenging Rio Bravo's claims and asserting multiple affirmative defenses. However, Rio Bravo's own uncontroverted allegations provide grounds to dismiss the Complaint.

Finally, restitution is required only if the circumstances of the object's receipt or retention are such that as between the two persons it is unjust to retain it. Rio Bravo's Complaint seeks a $2 million windfall for its ten-year delay in requesting a re-determination of its capacity payment rate. An award to Rio Bravo would unfairly penalize PG&E's customers for simply complying with the terms of the PPA and the Commission's CLAF methodology. For all of these reasons, the Complaint must be dismissed.

I. BACKGROUND.

A. The Rights and Responsibilities of the Parties are Governed by the Terms and Conditions of Their SO4 PPA as Interpreted by the CPUC.

Rio Bravo is the successor in interest to Ultrapower, Inc., a qualifying facility ("QF") with which PG&E executed the Commission-approved form SO4 PPA on December 12, 1984. For ease of reference, Rio Bravo is identified as the Seller throughout this Motion. The Parties have executed several amendments to the PPA, including, but not limited to, the First Amendment to the PPA in 1994, the Five-Year Fixed Energy Price Amendment of 2001, and the Energy Price Option Amendment of 2006. The deliveries from June 9, 1999 through February 28, 2009, for which Rio Bravo asserts it should be paid a higher capacity price, were made pursuant to the PPA as amended. All of Rio Bravo's deliveries of electricity to PG&E were made, pursuant to the PPA between Rio Bravo and PG&E.

In March of 2009, Rio Bravo requested and paid for a CLAF study, the results of which showed Rio Bravo to be a non-remote generating facility. Since March of 2009, PG&E has paid

Rio Bravo for deliveries from its facility at the non-remote rate. In order to understand Rio Bravo's claim for capacity payments at the non-remote rate retroactive to June 9, 1999, it is necessary first to understand how the CLAF is used to calculate capacity payments for qualifying facilities ("QFs").

1. Payments under the PPA are Subject to the CLAF Adopted by the Commission.

PG&E administered Rio Bravo's CLAF in accordance with the Commission's protocol for applying line loss adjustment factors.

The regulations adopted by the Federal Energy Regulatory Commission ("FERC") to implement PURPA require that avoided cost payments include an adjustment to reflect the cost or savings due to the variation in line loses from those that would have existed in the absence of purchases from a qualifying facility.[1] This issue was examined by an Advisory Group formed in May 1983 pursuant to Decision (D.)82-12-120 and addressed in the report entitled, "The Calculation and Administration of Line Loss Adjustment Factors" ("Final Report"), which was submitted to the Commission in September of 1983.[2] A copy of the Final Report is attached to this Motion for ease of reference. The Final Report provides that once an individual QF's CLAF has been established during the QF's detailed interconnection study, it remains in effect for the life of the QF's contract unless revised based upon the results of a subsequent CLAF study performed only upon the request of the QF. The Final Report also states that "All loss studies conducted to revise loss adjustment factors, including those conducted at the QF's

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[1] 18 CFR 292.304(e)(4).

[2] *See*, "The Calculation and Administration of Line Loss Adjustment Factors - Final Report of PG&E to the CPUC" of September 1983 ("Final Report"). In D.84-03-092 the Commission ratified PG&E's use of its Final Report to calculate capacity line loss factors on a project-specific basis for remote QFs in its standard offer contracts. See, pp. 35-36 and 38-39. In D.84-03-092, the Final Report was approved as the Commission's final authority on the issue of line loss adjustments.

request, will be based on a representation of the transmission and primary distribution systems as they exist at the time."[3] The Commission adopted the Final Report's methodology for determining the CLAF of PG&E's remote QFs in D.84-03-092 and reiterated its decision in D.88-09-026.

2. A QF is Assigned Either a "Remote" or "Non-Remote" CLAF Depending on the Variations in Line Losses Due to its Presence on the System.

The CLAF methodology is two-fold. First, the QF is found to be either "remote" or "non-remote." An individual QF whose generation results in incremental losses that exceed 150% of average transmission system losses is deemed to be remote.[4] Second, a CLAF is selected based on the generator's remote status - if it is not remote, a CLAF of 0.989 is adopted; but if it is remote, then the project-specific CLAF is used. The resultant CLAF is then applied to the capacity payment formula in the specific QF's SO4 contract.

The CLAF is based on the FERC standard for avoided cost line losses.[5] The CLAF analysis is performed for an individual QF by comparing results from computer simulations of two power flow models with information specific to the QF in question. Because the models incorporate forecasts of system equipment, load, and resources, and forecasts lose their value over time once the forecasted time periods occur, it is necessary to use representations of PG&E's systems as they exist at the time of the study to revise the CLAF.

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[3] Final Report, p. 17, ll. 21-24.

[4] D.82-12-120. PG&E has calculated the average transmission loss as 0.011, which corresponds to a CLAF of 0.989. Since 150% of 0.011 is 0.0165, which corresponds to a CLAF of 0.9835, project-specific CLAFs that are less than 0.9835 are deemed to be remote.

[5] 18 CFR 292.304(e)(4) includes as a component of avoided cost, "The costs or savings resulting from variations of line losses from those that would have existed in the absence of purchases from a qualifying facility, if the purchasing electric utility generated an equivalent amount of energy itself or purchased an equivalent amount of electric energy or capacity." These variations in line losses are impacted by the expected generation dispatch, the generators that that will be reduced to accommodate the QF's generation, the system peak load, the spatial distribution of load around the system, and network topology.

3. The Responsibility for Requesting a CLAF Study Rests with the QF.

The loss adjustment factors for a QF are calculated initially in conjunction with the QF's final interconnection study at the QF's expense and remain in effect for the life of the QF's contract, unless revised upon the request of the QF. In the event redetermination is requested, the re-determined CLAF will be applied to the PPA prospectively. The SO4 PPA provides the CLAF for non-remote QFs[6] and instructs remote QFs that, "Capacity Loss adjustment factors for remote QFs shall be calculated individually." The Seller acknowledged that information was not available at the time of contract execution to establish the appropriate CLAF and that Seller would request PG&E to perform a CLAF study to determine the number to be inserted.[7] The responsibility to request a subsequent CLAF study consistently lies with the QF, and the IOUs do not have an obligation to unilaterally calculate and apply new CLAFs.

4. Rio Bravo Ignored Information Regarding the Potential for it to Become Non-Remote.

Rio Bravo was advised by PG&E in 1987 that PG&E intended to increase the voltage and corresponding capacity of the line through which the Facility delivers electricity to PG&E from 60 kV to 115 kV. Beginning in 1998, PG&E published its transmission system assessments, transmission expansion plan, and base case models; copies of the published materials were available in response to written requests in accordance with the CAISO Tariff. Rio Bravo could have accessed this information and requested a recalculation of its CLAF, but it failed to do so.

B. Complaint of Rio Bravo.

On July 19, 2009, Rio Bravo filed the instant Complaint which requests an order finding that: **(1)** Rio Bravo's capacity payments should not have been discounted by application of a

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[6] *See*, Exhibit D-1 in Appendix D and Table E-1 of Appendix E.

[7] *See*, Table E-1, footnote 2.

"remote" CLAF beginning June 9, 1999 through February 28, 2009; **(2)** that PG&E was unjustly enriched at Rio Bravo's expense; and **(3)** that PG&E should remit to Rio Bravo the difference between actual capacity payments received and payments that it would have received if its facility had been re-designated as a non-remote facility on June 9, 1999, plus interest.

II. ARGUMENT.

The Complaint is flawed because it fails to allege any violation of law or Commission order, as required by Public Utilities Code § 1702, and it relies on the equitable theory of restitution which is not available to Rio Bravo because the rights of the Parties are governed by contract. PG&E is entitled to judgment as a matter of law, and there are no triable issues of fact; therefore, the Complaint must be dismissed.

A motion to dismiss essentially requires the Commission to determine whether the party bringing the motion wins based solely on undisputed facts and on matters of law. The Commission treats such motions as a court would treat motions for summary judgment in civil practice.[8]

A. The Complaint Should Be Dismissed for Failure to State a Claim for Relief.

1. The Allegations of the Complaint Fail to Meet Statutory Requirements.

Pursuant to Public Utilities Code § 1702, a complaint must allege an "act or thing done or omitted to be done by any public utility, including any rule or charge heretofore established or fixed by or for any public utility, in violation, or claimed to be in violation, of any provision of law or of any order or rule of the Commission."

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[8] *State of California Department of Transportation, Cox California Telecom dba Cox Communications, et. al. v. Crow Winthrop Development and Pacific Bell*, Decision D.01-08-061 at 7, *citing to Westcom Long Distance v. Pacific Bell*, (1994), 54 CPUC 2d 244, D.94-04-082.

Rio Bravo requests that PG&E pay it the higher capacity payments that it allegedly would have received, if in 1999, PG&E had advised Rio Bravo that it was no longer a "remote" resource and applied the non-remote CLAF to Rio Bravo's capacity payments. However, Rio Bravo does not cite any provision of law or order or rule of the Commission that requires PG&E to notify it that its facility might have become non-remote and that it should request and pay for a CLAF study to determine whether its remote status has changed. Absent this essential element, the Complaint does not meet the statutory requirements for a complaint authorized by § 1702 of the Public Utilities Code and should be dismissed on the pleadings.[9]

2. An Equitable Claim Does Not Lie Because the Rights of the Parties Are Governed by Their SO4 PPA.

The Complaint does not allege that PG&E failed to perform any of the terms and conditions of the Parties' PPA but seeks recovery of an additional increment of capacity payments under the equitable theory of restitution. The phrase 'unjust enrichment' is used in law "to characterize the result or effect of a failure to make restitution of or for property or benefits received under such circumstances as to give rise to a legal or equitable obligation to account therefore."[10] However, as a matter of law, a quasi-contract action for unjust enrichment does not lie where express binding agreements exist and define the Parties' rights .[11] If there is a

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[9] *L. L. Tudor v. Southern California Edison Company*, C.00-06-017, D.00-11-029.

[10] 55 Cal. Jur. 3d, Restitution, p. 398. Public Utilities Code § 1702 states in relevant part: "Complaint may be made . . . by any corporation or person, . . . , by written petition or complaint, setting forth any act or thing done or omitted to be done by any public utility, including any rule or charge heretofore established or fixed by or for any public utility, in violation or claimed to be in violation, of any provision of law or of any order or rule of the commission."

[11] 55 Cal. Jur 3d Restitution §19, citing *California Medical Ass'n. Inc. v. Aetna U.S. Healthcare of California , Inc.* (2001), 94 Cal. App. 4th 151, 114 Cal.Rptr. 2nd 109.

valid express contract, any recovery must be measured by its terms.[12] Rio Bravo has not alleged that PG&E is in violation of the PPA; accordingly, there is no basis in either equity or law for Rio Bravo's attempt to extract additional capacity payments from PG&E's customers.

It is undisputed that the deliveries for which Rio Bravo claims higher capacity payments were made pursuant to the Parties' SO4 PPA and that PG&E's payments were consistent with the terms of the PPA - although Rio Bravo claims it is entitled to payments at a higher CLAF than the one used - nowhere in the Complaint does Rio Bravo assert that PG&E failed to compensate it in accordance with the terms of the PPA, specifically the terms of the capacity payments in Appendix E at Section E-5, including Tables E-1, E-2, and E-3. Rio Bravo has never filed an exception to the payments PG&E made pursuant to the PPAs.

Accordingly, Rio Bravo's Complaint fails to meet the statutory requirements required to sustain a complaint and should be dismissed.

B. PG&E is Entitled to Judgment As A Matter of Law and There are No Triable Issues of Material Fact.

The Commission will grant a motion to dismiss where there are no triable issues of material fact and the moving party is entitled to judgment as a matter of law.[13]

1. The Complaint Must Be Dismissed as a Matter of Law.

Here, the issue of whether Rio Bravo has a valid claim for $2,000,320 for capacity delivered during the period from June 9, 1999 through February 28, 2009 is a question of law. Rio Bravo cannot rely on an equitable theory for relief because it admits that the capacity in

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[12] *Zumwalt v. Schwarz* (1931), 112 Cal.App.734, 297 at 608.

[13] *Westcom Long Distance, Inc. v. Pac Bell* (1994), 54 CPUC 2d 244, at 249; *Crystal River Oil and Gas v. PG&E* (2000) D.00-10-005, 200 Cal.PUC LEXIS 817.

question was sold to PG&E under an SO4 PPA signed by PG&E on December 12, 1984, with a term that expires in 2020."[14] On this basis, the Complaint should be dismissed.

2. The Uncontroverted Facts Fail to Support Rio Bravo's Claim for Relief.

Even assuming that Rio Bravo amends its Complaint to allege that it is owed $2,000,320 under the terms of the Parties' PPA, the material facts would not support such a claim. Rio Bravo admits that PG&E purchased and paid for capacity delivered by Rio Bravo's Rocklin Facility ("Facility'), pursuant to the SO4 PPA between the Parties,[15] and that Rio Bravo did not request - and PG&E did not conduct - a re-determination of the CLAF prior to March of 2009.[16] Seller's responsibility to request a study to establish the CLAF for the term of the PPA is established by the PPA between the Parties [17] and the CPUC's adopted CLAF procedure.[18] The CLAF procedure provides the QF the option to request a subsequent CLAF study during the term of the PPA.[19]

The fact that PG&E did not inform Rio Bravo in 1999 that its facility was non-remote (assuming it was in fact, non-remote) is insufficient grounds for relief whether under the PPA or under the notion of unjust enrichment. Where a contract provision is unambiguous, the express language governs and no obligation can be implied that would result in the obliteration of a right expressly given under a written contract. *Third Story Music, Inc. v. Waits* (1995) 46 Cal.App.4th

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[14] Complaint of Rio Bravo, paragraph 1, p.2.

[15] Ibid.

[16] Complaint of Rio Bravo, p. 9.

[17] PPA, Appendix E, p. E-9, fn 2.

[18] Final Report, pp.15 - 16.

[19] Final Report, p. 16.

1007, 1013.[20] The responsibility to request a CLAF study that could support a change from remote to non-remote status was at all times the responsibility of Rio Bravo.

C. The Commission Should Grant PG&E's Motion to Dismiss.

Rio Bravo has failed to assert any violation of law or of any Commission order or ruling, as required by § 1702 of the Public Utilities Code, and this failure is readily apparent upon reading Rio Bravo's Complaint. There are no triable issues of fact, thus, PG&E is entitled to judgment due to Rio Bravo's failure to properly state its claim as a matter of law.

In the alternative, Rio Bravo's claim for restitution should be dismissed because the rights of the Parties are governed by the SO4 PPA executed in 1984. The Complaint shows that the deliveries of capacity in question were made pursuant to the terms and conditions of the SO4 PPA between the Parties; Rio Bravo did not contest the payments that PG&E made to Rio Bravo for capacity delivered under the terms and conditions of the SO4 PPA; Rio Bravo admits that it did not request a subsequent CLAF study until 2009; and Rio Bravo does not assert that PG&E failed to follow any decision of the Commission regarding the calculation of its CLAF. Rio Bravo's Complaint demonstrates that there are no triable issues of fact, therefore, the Complaint should be dismissed.

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[20] *Crystal River Oil and Gas, L.L.C. vs. Pacific Gas and Electric Company* (1995), D.00-10-005, citing *Third Story Music, Inc. v. Waits* (1995), 46 Cal.App.4th 1007, 1013.

III. CONCLUSION.

For all of the foregoing reasons, PG&E respectfully requests that the Commission promptly issue an Order dismissing the Complaint of Rio Bravo with prejudice.

DATED: August 27, 2010

Respectfully submitted,

CHARLES R. MIDDLEKAUFF
EVELYN C. LEE

By: /S/
EVELYN C. LEE

Law Department
77 Beale Street, B30A-3083
San Francisco, CA 94105
Telephone: (415) 973-2786
Facsimile: (415) 973-5520
E-Mail: ECL8@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

THE CALCULATION AND ADMINISTRATION OF LINE LOSS ADJUSTMENT FACTORS

Final Report of

Pacific Gas and Electric Company

to the

California Public Utilities Commission

September 1983

THE CALCULATION AND ADMINISTRATION OF LINE LOSS ADJUSTMENT FACTORS

Executive Summary

This report was prepared by PGandE pursuant to Ordering Paragraph 12k of Decision No. 82-12-120 in Order Instituting Rulemaking No. 2 (OIR-2). As directed by the CPUC in that decision, PGandE prepared a revised line loss study with the cooperation of the CPUC Staff and representatives of the small power production and cogeneration industry.

Transmission and distribution line losses are the operating costs associated with the transportation of electricity from the point of origin to the point of use. Incremental line losses are the additional losses due to the addition of generation to the transmission or distribution system.

The addition of Qualifying Facility (QF) generation to PGandE's transmission and distribution systems results in a change (addition or subtraction) in total system losses. The change in losses is directly due to the additional QF generation. Because the addition of QF generation may increase or decrease PGandE's transmission and distribution system losses, adjustment of payments for QF energy to reflect the impact of the change in losses is appropriate. The remote/aggregate concept proposed by the CPUC in Decision No. 82-01-103 is conceptually unsound and doesn't save effort in calculation. PGandE proposes that project-specific line loss adjustment factors be calculated and applied to each QF on an individual basis. In support of this proposal, PGandE presents its Project-Specific Methodology for calculating line loss adjustment factors. Direct application of individual loss adjustment factors is equitable, technically

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sound and consistent with avoided cost principles. The principles and procedures for loss adjustment factor revision are also presented in this report.

The Advisory Group on the OIR-2 Line Loss Methodology, consisting of PGandE, CPUC Staff and QF industry representatives, formed in May 1983 pursuant to Decision No. 82-12-120, considered in detail and at length PGandE's initial proposal for Project-Specific line loss adjustment factors. Support for the proposal among Advisory Group members is strong.

Taking into account PGandE's work with the Advisory Group, PGandE recommends the following:

1. The remote/aggregate distinction is conceptually unsound and should be rejected.
2. Loss adjustment factors for all QFs 100 kW or greater should be calculated using the Project-Specific Methodology described in this report.
3. The options for loss adjustment factor revision described in this report should be provided to all QFs 100 kW or greater.
4. This report discusses a proposal to calculate and administer loss adjustment factors for energy. The calculation and administration of loss adjustment factors for capacity should be consistent with this proposal.

I. Background

Pursuant to Decision No. 91109 in OII-26, in February 1980, PGandE first submitted to the CPUC contract terms and conditions to purchase power from cogenerators and biomass and refuse derived fuel QFs. Later that year, similar contracts were developed for purchases from hydroelectric and wind facilities of more than 100 kW which included the calculation of line loss factors to account for transmission losses to load center. In the offers, typical line loss factors for each division of the PGandE system were included for illustrative and informational purposes only. PGandE's case-by-case (Project- Specific) methodology was applied to each facility separately to calculate individual loss adjustment factors for energy and capacity.

Also in February 1980, the Federal Energy Regulatory Commission (FERC) issued its final rules implementing Section 210 of PURPA*. These regulations require that electric utilities purchase electric energy and capacity from qualifying cogenerators and small power producers at the utility's avoided cost of generating the power itself or purchasing it elsewhere. The rules implementing Section 210 direct that the costs or savings from variations in line losses from those that would have existed in the absence of the utility's purchase of QF power should be reflected in the avoided costs determination.

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*Docket No. RM79-55, Order No. 69 (45 Federal Regulation 12214)

Responsibility for implementation of Section 210 was given to state regulatory agencies and on September 3, 1980 the CPUC issued OIR-2 to establish standards governing the prices, terms, and conditions of utility purchases of electric power from QFs.

In its "Final Staff Report on Cogeneration and Small Power Production Pricing Standards", the CPUC Staff recommended against the case-by-case calculation of transmission loss adjustment factors for energy and capacity and stated that:

> "...losses should be applied in the aggregate to all QFs, as losses are applied in the aggregate to customers. QF aggregate losses should be based on a production simulation assuming a diverse mix of QFs, both geographically and technologically. (p. 9-64)

Decision No. 82-01-103 dated January 21, 1982 reflected in part the Staff's point of view. The decision describes in general terms a class of QFs called "remote" for which loss adjustment factors are to be calculated on a case-by-case basis and another class of QFs which are non-remote and for which loss adjustment factors are to be calculated "in the aggregate." Remote QFs are defined as QFs "one MW or larger developed at sites remote from load centers where the incremental loss increase resulting from substitution of QF generation at the remote site exceeds 150% of average transmission losses" (p. 33)

In the compliance hearings that followed the decision, PGandE presented a broad outline of the methodology it developed and applied to calculate loss adjustment factors in the aggregate, and to identify remote sites. In the decision following the compliance hearings,

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Decision No. 82-12-120, (December 30, 1982) the Commission reaffirmed its intention to have PGandE apply line loss adjustment factors to payments for capacity and energy in Ordering Paragraph 12K:

> PGandE shall complete a revised line loss study in cooperation with staff and QF representatives and file an original and twelve copies with the Commission's Docket Office within six months of the effective date of this order. The study shall include a methodology for identifying and determining losses from remote sites.

Following Decision No. 82-12-120, PGandE reviewed the line loss issue internally and with the CPUC Staff. The CPUC Staff agreed with PGandE that the definition of remote QFs in Decision No. 82-01-103 is conceptually incorrect* and recommended that QF losses be calculated individually.**

II. Advisory Group on the OIR-2 Line Loss Methodology

A. Origin

On April 18, 1983, PGandE notified about 1,600 people, firms, and agencies by mail of a presentation of the loss adjustment factor calculation methodology proposed by PGandE to complete the loss study revision ordered in Decision No. 82-12-120. The original mailing list was formed on the basis of all recorded inquiries regarding potential interconnection for the purpose of QF power sales, known interested parties and the OIR-2 service list. About 75 people appeared for the

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*Letter of J. Quinley (CPUC Staff) to the Advisory Group - April 5, 1983.
**Letter of J. Quinley to the Advisory Group - June 27, 1983.

all day presentation and question/answer session. Attendees represented QFs, consulting firms, public agencies, private firms, and others. PGandE's intention to request the formation of an Advisory Group with specified functions and products was discussed.

The next meeting, on May 17, was attended by 20 QF representatives, PGandE and CPUC Staff members. Acting chairman of the group, Mr. R. E. O'Donnell of PGandE, asked that an Advisory Group be formed from the attendees and that a new chairman be selected. A five member Steering Committee was formed from among those in attendance to select the Advisory Group chairman and assist him in establishing meeting agendas and preparing presentation materials. Representatives of the CPUC and PGandE were appointed. The Steering Committee elected Mr. Robert Walther, an engineering consultant and QF developer, to be chairman of the Advisory Group and control of the meeting and all future meetings of the Advisory Group was passed to the QF industry.

B. Composition of the Advisory Group

The Advisory Group was composed of QF industry representatives, representatives of the CPUC Staff and PGandE's technical Staff. Membership in the Advisory Group extended to all QFs and their representatives and was independent of any level or frequency of participation. Any member could attend meetings, write comments, observations or reports. Certain representatives of the small power production and cogeneration industry attended most meetings and were very active in presenting proposals,

providing comments and participating in discussion. Other QF industry representatives were occasional attendees while some did not participate at all.

C. Functions of the Advisory Group

The main function of the Advisory Group was to provide feedback to PGandE with reference to the proposed Project-Specific Methodology in the form of comments, criticism, questions, and counter proposals. The Advisory Group also considered loss adjustment factor revision and related administrative matters. In addition, the meetings of the Advisory Group provided an opportunity for all participants to acquire a deeper appreciation and understanding of the points of view of the other participants. Finally, the need for, or the extent to which, hearings must take place to resolve the technical and administrative issues surrounding line losses may be minimized as a result of the Advisory Group resolutions.

D. Summary of Advisory Group Decisions

Initially, the will of the Advisory Group was expressed through the individual members or the Steering Committee. PGandE provided to the Advisory Group descriptive materials and studies on the strength of a single request or on the request of the Steering Committee. Eventually, the Advisory Group expressed its decisions and preferences through a simple majority vote of the meeting attendees. Late in the course of the Advisory Group's activities, the Group decided that each firm, agency or individual in attendance would have one vote.

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The following summary of Advisory Group decisions is fully documented in the Minutes of Advisory Group meetings which should be consulted for background and detail.

- The Advisory Group limited its scope of work to the calculation and administration of loss adjustment factors. The Group explicitly excluded detailed consideration of the GRASS model from its agenda because it is not germane to loss adjustment factor calculation or administration. (June 21 meeting)
- The Advisory Group first expressed interest in the impact on QF losses of variations in Northwest Intertie loading at the June 7 meeting. PGandE provided two separate studies and much discussion to address this issue. Additionally, Henwood and Associates made a presentation on their view of the subject. At the last meeting of the Advisory Group on September 19 the Advisory Group voted to register its concern with the Commission about the potential inequities of PGandE's policy regarding transmission deliveries on the Northwest Intertie.

  PGandE has consistently argued that the availability of inexpensive energy from the Northwest and contract commitments of capacity on the Intertie require PGandE to simulate the Northwest Intertie as it is expected to operate.
- The Advisory Group expressed a clear preference for individual QF treatment and voted to adopt for further work, in principle, Project-Specific loss adjustment factors.

- The Advisory Group voted to adopt loss adjustment factor revision at QF's option and QF's expense. PGandE's proposal reflects this recommendation.
- Finally, at the September 19 meeting, the Advisory Group supported the Project-Specific Methodology proposed by PGandE. In supporting it, however, some of the Advisory Group registered strong reservations to the <u>use</u> of the Project-Specific Methodology while indicating agreement with the analytical technique.

The Advisory Group's support of the Project-Specific approach to the calculation of loss adjustment factors is clearly delineated in the record of its meetings. PGandE's initial proposal of the Project-Specific Methodology, the subsequent analyses of special conditions and scenarios, detailed technical presentations and PGandE's availability for discussion of technical and administrative matters related to its proposal, provided a sound foundation for the Advisory Group to judge the merit of the proposal against the alternatives that were offered.

III. Review and Rejection of the Remote/Aggregate Distinction

In attempting to apply the remote versus nonremote distinction defined in Decision No. 82-01-103 to QFs in its service territory, PGandE encountered two major problems: First, it was found that a QF could be remote during some time periods and nonremote during others. Second, PGandE found the idea and actual measure of incremental losses of QFs "in the aggregate" technically meaningless.

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Remote QFs

Since a given QF can be remote during some time periods and nonremote during others, categorizing QFs for purposes of individual or aggregate line loss treatment was not clear cut. PGandE chose the summer peak period measure of line losses as the basis for separating QFs into the two categories. QFs which caused incremental losses in excess of 150 percent of average transmission system losses at the time of the summer peak were considered "remote" and given individual line loss adjustment factors.

The second problem with the identification of remote QFs is the "150 percent of average transmission system losses" criterion. The test can be interpreted in several ways: It is possible to interpret "average transmission system losses" to mean the historic average of transmission system losses at the time of the system peak as a percent of system peak load. The question then remains, over what historic period should the average be measured? Again, average transmission system losses could be measured over all hours in the base case year, or some other year or years. However, a comparison of incremental losses due to QF generation to average transmission system losses due to all of PGandE's generation averaged over any time period is conceptually inconsistent. More correctly, average transmission system losses should be interpreted as the average transmission system losses due to all QFs as a percentage of QF generation at the time of the system peak, or over the time period measured. This is the interpretation PGandE utilized in the study completed for the compliance hearings. PGandE measured average transmission system

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summer peak losses due to QFs under this interpretation at 1.1 percent. QFs with losses or savings of 1.7 percent or greater qualified as remote.* It is clear that in order to make this determination a case-by-case analysis of QF losses is required.

The Aggregate

The same problems that affect the specification of remote QFs affect the specification of the aggregate. Since the aggregate is composed all QFs that are "nonremote", each interpretation of remote results in a different aggregate. Further, as additional QFs are added to the QF population the standard changes, i.e., the average transmission system losses due to all QFs changes. Therefore, over time the basis upon which the aggregate and remote classifications are determined shifts. If consistent treatment of all QFs was to be maintained, all QF losses would have to be recalculated to determine whether they are remote each time a change in the QF population resulted in a change of the standard.

Therefore, in addition to the problems created due to a particular QF falling into each category during different time periods, a QF which would be remote when studied as part of a given group of QFs might be nonremote when the group changes as a result of projects which failed to proceed or the addition of new QFs to the group. The "base line" of 1.1 percent line losses established for 1983 as a result of PGandE's compliance with Decision No. 82-01-103 is not a static figure.

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*In the event that average transmission system losses due to QFs were zero, the application of the 150 percent definition would result in a meaningless solution.

Although it would be possible to establish this base line by assuming a reasonable mix of QFs rather than run the study with only identified projects included, such an approach should not be adopted. By its very nature, the study would be based on speculation with regard to the sizes, locations, types and number of facilities to be included. Additionally, the time frame to be used is left open. Should the projection of installations cover only one year or ten years or more? Since line loss adjustment factors directly affect the QFs' revenue stream, reliance on this level of speculation is inequitable and unnecessary when an alternative approach that more accurately reflects a QF's actual impact on system line losses is readily available.

By the terms of Decision No. 82-01-103, the aggregate includes all QFs with incremental losses less than 150 percent of the system average as well as QFs that reduce losses. Aggregation deprives QFs which reduce line losses of compensation for the benefit they confer and eases the impact on QFs which have losses greater than the aggregate average. Aggregation results in some QFs subsidizing others.

Updating loss adjustment factors is made cumbersome by aggregation. Each time a QF is added to the QF population, the aggregate average changes and the number of remote QFs may change. If loss adjustment factors are updated from time to time, a new calculation of the aggregate average loss adjustment factor and each of the remote factors must be completed. Time consuming and cumbersome, this feature of the aggregate/remote methodology also

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creates uncertainty among the QFs about the loss adjustment factors that will be applied to their power sales over the lives of their contracts. Finally, as with determining if a QF is remote, no time or effort or expense is saved through aggregation since each QF must be studied on a project-specific basis to determine if it is remote or nonremote.

IV. Project-Specific Loss Adjustment Methodology

PGandE's Project-Specific Methodology (PSM) eliminates the inequitable and cumbersome features of the aggregate/remote loss adjustment method. Because a set of loss adjustment factors is calculated for each QF individually, no arbitrary assignment of some QFs to the aggregate or remote category must take place. Rather, losses due to each QF are evaluated individually, and unique loss adjustment factors are computed. Thus, each QF is compensated individually for its net energy deliveries. This is equitable and consistent with the principles of avoided cost.

A. Calculating Project-Specific Loss Adjustment Factors

The Project-Specific Methodology is a straightforward use of the basic power flow calculations used in transmission and distribution system analysis. The technique is used routinely by PGandE in the analysis of generation projects it may construct or of transmission projects to purchase non-PURPA resources. The technique used at PGandE for loss studies is widely used and accepted throughout the industry for this type of analysis.

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The Project-Specific Methodology is applied to the analysis of QF losses by calculating total system losses in MW for a case with the subject QF (Changecase), calculating total system losses without the subject QF (Basecase), and comparing the results. The change in losses between the Basecase and the Changecase is the incremental loss effect due to the subject QF.

Basecase Description

A Basecase is composed of inputs that describe the physical characteristics of the transmission and distribution systems, and load and generation for the year in which the QF is scheduled to begin operation. These assumptions are consistent with the most current management-approved PGandE load forecast and resource plan and the transmission and distribution system as it is expected to exist in that year. The adaptation of the load and resource data to the power flow calculations is described in Appendix II.

Changecase Description

All transmission lines and equipment required by the subject QF, including lines and equipment added by QFs, are added to the Basecase. The output of the marginal PGandE generators is reduced (determined by their incremental heat rates) as it would occur in the actual system. Thus, the case is an analog of the transmission and distribution systems and imitates precisely the adaption of the systems to the added QF. The simulated incremental QF losses are equivalent to the actual incremental QF losses.

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Loss Adjustment Factors

Loss adjustment factors are based on the QF's incremental losses determined by comparing a Basecase and a Changecase. The incremental losses due to a QF are measured in MW. The loss adjustment factor is calculated as one minus the ratio of the incremental QF loss to the QF's generation.

Loss adjustment factors may have two components: a transmission component and a primary distribution component. Loss adjustment factors for QFs interconnected at 60 kV and above have only a transmission component. Once the incremental losses (in MW) due to the QF are calculated for the transmission system and the primary distribution system (if applicable), they are added together. The loss adjustment factor is then calculated. (see Example) In any case, the loss adjustment factor is a single number that represents either the incremental losses of the QF on the transmission system, or the incremental losses due to the QF on the transmission and primary distribution system together.

A loss adjustment factor is calculated for each of six costing periods: peak, partial-peak and off-peak periods for both summer and winter. The resulting six loss adjustment factors could be applied to time-differentiated energy purchases or averaged over a year or season.

B. Administering Project-Specific Loss Adjustment Factors

Loss adjustment factors for a QF would be calculated initially in conjunction with the QF's final interconnection study at the QF's expense, and remain in effect for the life of

EXAMPLE OF THE CALCULATION OF LOSS ADJUSTMENT FACTORS

The loss adjustment factor on an annual basis is defined as follows:*

$$LAF = 1 - \frac{(SPL)(SPH)+(SPPL)(SPPH)+(SOPL)(SOPH)+(WPL)(WPH)+(WPPL)(WPPH)+(WOPL)(WOPH)}{\text{QF Output in kWh}}$$

Where:

SPL = summer peak losses in MW	WPL = winter peak losses
SPH = summer peak hours	WPH = winter peak hours
SPPL = summer partial peak losses	WPPL = winter partial peak losses
SPPH = summer partial peak hours	WPPH = winter partial peak hours
SOPL = summer off peak losses	WOPL = winter off peak losses
SOPH = summer off peak hours	WOPH = winter off peak hours

Example: Assume a 10 MW generator operates at 100% Load Factor. Its losses in kW are as follows:

	Summer			Winter		
	SPL	SPPL	SOPL	WPL	WPPL	WOPL
Trans.	125	-150	200	140	210	300
Dist.	-200	450	700	225	700	1000
Total	-75	300	900	365	910	1300

$$LAF = 1 - \frac{(-75)(642)+(300)(1150)+(900)(1880)+(365)(584)+(910)(1894)+(1300)(2610)}{(10,000)(8760)}$$

$$LAF = 1 - \frac{7663550}{87,600,000} = 1 - 0.0875 = .9125 \text{ or } 91.25\%$$

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*This example illustrates the calculation of an annual loss adjustment factor. The same technique can be adopted to calculate time-differentiated or seasonal loss adjustment factors.

the QFs contract, unless revised upon the request of the QF or if the QF changes either the amount of output it sells to PGandE or the facility operation from that used to calculate the initial loss factor.

Loss Adjustment Factor Revision

A QF may request a redetermination of its loss adjustment factors, either transmission or primary distribution or both, at its expense. If the QF exercises this option and a new loss study is performed, the new loss adjustment factors must be applied to the QFs contract.

Since a QFs loss adjustment factor may vary as a result of an increase in the amount of power sold and the level of generation during a given time period, PGandE, at its expense, may revise the loss factor when the QFs performance changes significantly from that used in the initial calculation.

Increments of capacity may be considered apart from the existing capacity when a loss adjustment factor is revised unless the QF chooses to revise the loss adjustment factor for the whole amount. The QF option to revise loss adjustment factors is not available for QFs with one year contracts.

All loss studies conducted to revise loss adjustment factors, including those conducted at the QFs request, will be based on a representation of the transmission and primary distribution systems as they exist at the time. Redetermining a QFs loss adjustment factor may result in a QF losing prior status on a line or in the network.

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Loss Adjustment Factor Renewal

Loss adjustment factors are binding only for the term of the contract. Any renewal of a contract is treated as a new contract and the loss adjustment factor applicable to the new contract shall be determined in accordance with the procedures in existence at the time the contract renewal occurs.

Loss Adjustment Factors For QFs Less than 100 kW

Calculation of loss adjustment factors for QFs less than 100 kW is not recommended. The amount of energy in question is small. The cost of studying the losses, which would be paid by the QF, may be great compared to the cost of the project. Therefore, PGandE believes it is not cost effective to develop loss adjustment factors for these QFs.

V. Alternative Methodologies

Appendix I contains brief descriptions of five loss adjustment factor proposals that were considered by the Advisory Group. Several of the proposals were considered in detail but none of them won the widespread support of the Advisory Group. The following is a summary of PGandE's views of these alternative proposals.

1. Aggregate/Remote Approach

PGandE believes that the aggregate/remote approach described in Decision No. 82-01-103 is unsound and unworkable. It is unsound because it does not accurately

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measure the incremental losses due to QFs. It is unworkable because neither remote QFs or the aggregate have a practical meaning. PGandE's arguments are presented in depth in Section III.

2. Interim Loss Adjustment Factor

Decision No. 82-12-120 establishes interim loss adjustment factors for energy of 1.0 during the time PGandE is revising its loss adjustment factor calculation methodology. Some of the QF representatives believe that the discussion of the technical and administrative aspects of PGandE's proposed Project-Specific Methodology that has occurred in the Advisory Group has been insufficient. They feel they cannot fully support the PSM without additional discussion and information. Consequently, they prefer the continuation of an interim loss adjustment factor of 1.0 while additional discussion of the PSM takes place.

PGandE objects to this proposal for the following reasons: First, PGandE believes that the PSM has been thoroughly described and discussed in the Advisory Group. All of the most important technical and administrative issues have been exhaustively discussed and resolved. Concerns of some Advisory Group members regarding the resource plan and inputs used in calculating QF incremental losses can be addressed after the analytical framework of the PSM is adopted by the Commission.

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Second, continuation of the use of 1.0 is inequitable to QFs which save line losses and to ratepayers who ultimately pay for actual losses not reflected in QF payments.

3. Single, System-Wide Loss Factor

PGandE objects to this proposal because it is inequitable and because it is inconsistent with the principles of avoided cost. It suffers from the same shortcomings as the interim proposal but is permanent and fixed. Like most of the proposed alternatives, the single, system-wide loss adjustment factor proposal does not include a method of calculation and administration. Thus, it fails in all important ways to satisfy the need for technically sound, equitable and workable loss adjustment factors.

4. Island Approach

Besides the brief description in Appendix I, a more detailed description of the Island proposal is in the Addendum (See letter to Advisory Group from Robert Sims).

PGandE finds the Island proposal lacking in the following ways:

- A method to identify the boundaries of the Island is not included in the proposal. Though vital to the implementation of the proposal, specification of the number of islands, delineation of island boundaries and specification of the islands' load and generation is likely to be very controversial and may require extensive hearings.

- The Island proposal is not designed to measure actual QF incremental losses but rather to establish "island-average" loss adjustment factors based on a speculative mix of all loads and generation in the Island.* The greater the reliance on speculation in calculating line losses, the greater the divergence of payments from avoided cost principals. As with any approach that does not focus on each individual QF's impact on losses, the inequitable ratepayer/QF and QF/QF subsidies result.
- One principle of avoided cost-based payments to QFs is that price is an economic signal conveying the value of the energy for sale. Loss adjustment factors are applied to the QFs' energy price to account for the incremental costs or savings due to line losses. Under the Island approach, price signals are not accurate because they do not convey information about the value of QF energy. Rather, they convey information about average losses in a particular location which is likely to misrepresent the loss effects of a QF generating in that location: while the island-average losses may be +10 percent, the incremental losses (Project-Specific)

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*This feature of the Island proposal was revealed during discussion in the Advisory Group meeting of September 19.

due to a QF in the Island may be -5 percent. The only accurate price signal is conveyed via the Project-Specific loss adjustment factor.

- An apparent advantage of the Island approach for QFs planning facilities is the availability of standard, stable loss information. This advantage, however, is acquired at the cost of accuracy and equitability.

5. <u>The Collective Group Approach</u>

PGandE views the collective group approach not as an alternative to Project-Specific loss adjustment factors but as a supplement. PGandE is willing to calculate a single set of loss adjustment factors for a group of QFs on a single distribution or transmission feeder. The QFs would be responsible for organizing themselves and PGandE would require that all administrative matters be resolved among QFs prior to doing the loss study.

This is really an adaptation of the Project-Specific loss adjustment factor concept which may be useful in areas where QFs are concentrated. The "project" in such a case would actually be a group of QFs rather than an individual QF. Therefore, the Collective Group approach would be consistent with avoided cost principles. However, like most of the alternative proposals, it lacks a practical method of administration.

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PGandE agrees with the collective group approach in principle, but does not agree wholly with Mr. Quinley's discussion of it in the Appendix. Specifically, PGandE believes that:

- Allocation of loss "shares" among the QFs will be a matter for the QFs to resolve; it is not necessarily going to be an equal allocation as Mr. Quinley states.
- Interim loss adjustment factors are not necessary for QFs that start deliveries before the total collective capacity is developed. PGandE proposes that the revision provisions applied to single QFs apply equally to a collective group of QFs: a change in contract capacity in the group results in loss adjustment factor revision as described in Section IV.

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Conclusion

This filing is a culmination of many weeks of discussions among PGandE, QF representatives, and Commission staff. Although a consensus has not been reached on all issues surrounding the calculation of line losses, significant progress has been made. The majority of QF representatives who have actively participated in this process support the use by PGandE of the Project-Specific approach. In response to concerns expressed by many QF representatives, PGandE has included in its proposal a line loss revision option and contract renewal provision. Certain other issues were not resolved and no recommendation has been made by PGandE.

Included in the materials distributed during the Advisory Group's meetings is a document prepared by Henwood Associates. This document discusses the results of a line loss calculation for a hypothetical QF using an assumption that a given amount of power is not brought into the PGandE system via the intertie. (This case was run by PGandE at the request of the Advisory Group.)

The focus of the Henwood paper is the avoided cost calculation when coupled with the line loss calculation, not the line loss methodology itself.

PGandE has not included a response to the Henwood document in this filing, but does not want its silence construed as concurrence with anything contained therein. Ordering Paragraph 12(k) addresses only line losses. Therefore, PGandE believes that inquiry into the GRASS model is beyond the scope of this report; a position supported by an Advisory Group vote.

Although the particular characteristics of another utility's system may warrant the use of another approach, PGandE urges the Commission to approve its use of the Project-Specific Methodology because it believes it is the most accurate and equitable method of determining the impact of QFs on its particular system.

APPENDIX I

ALTERNATIVE APPROACHES CONSIDERED

The Advisory Group on Line Losses has examined, in varying detail, several alternatives to the Project-Specific Loss Factor Methodology. I have attempted to fairly summarize these alternatives and to indicate the extent to which the Advisory Group discussed each alternative.

John D. Quinley, Supervising
Engineer, Alternative Generation
Section, Utilities Division, California
Public Utilities Commission

A. Continuation of Aggregate/Remote Approach (D.82-01-103)

This approach was examined at length by the Advisory Group and is discussed at length elsewhere in this report. PGandE and the staff believe that the method of differentiating between aggregate and remote which was ordered in D.82-01-103 was conceptually incorrect and mathematically unworkable. A workable method could not be found to segregate remote and non-remote ("aggregate") QFs. There was not support among the Advisory Group to continue this approach.

B. Continuation of the D.82-12-120 Interim Solution of a 1.0 Loss Adjustment Factor for Energy

Several members of the Advisory Group proposed a variation on the D.82-12-120 interim solution of a 1.0 Loss Adjustment Factor for energy. This proposal would establish 1.0 factors for both energy and capacity, to be in effect for an interim period of 6 months to one

year, during which time specific details and administrative issues regarding the line loss adjustment factor calculation methodology would be worked out through evidentiary hearings. During this interim period QFs should be able to sign agreements with 1.0 factors fixed for 10 years. Loss Adjustment factors would be recalculated at the end of the 10 years per the CPUC-approved methodology. This proposal is more thoroughly developed in the letter of August 5, 1983 from Frank Wong to Richard O'Donnell, which is included in the Addendum. A vote was not taken by the Advisory Group on this approach.

C. Total PGandE Service Area Aggregate Approach Without Remotes

This approach would assign the same loss adjustment factor to all QFs in PGandE's service territory. It was not examined in detail due to lack of support. This method would penalize QFs that are close to load centers, and would subsidize remote QFs.

D. Island Approach

This concept would establish islands of QFs (areas) and determine an aggregate loss factor for all QFs in each island. This factor would be fixed for a certain number of years and could be updated at regular intervals. Factors would be by TOU periods, summer and winter, and would be applied to the kW and kWh of each QF selling to PGandE. This approach would allow QFs to know in advance what the loss factors would be for their projects. However, the method suffers from a number of problems. First, distribution losses and lower voltage transmission losses can vary greatly between QFs in the same vicinity. This approach would ignore such differences. Second,

because of the judgemental nature of such loss factors, the CPUC would probably have to delineate island areas and determine how to computer losses, after a hearing.

A more detailed description of this approach is presented in the letter to the Advisory Group from Robert Sims of U. S. Windpower. Details of the approach were not worked out in the Advisory Group.

E. Collective Group Approach

The Advisory Group would approve a collective approach to be made available. The approach would be generally available to volunteer groups of QFs of the same technology which are connected to the same single feeder. A group would present PGandE with an interconnection plan and timetable for a defined number of MWs. The group would ask PGandE to determine a single set of loss factors for the group. Those loss factors would then be charged equally to each member or charged to each by some allocation factors agreed to by the group. A change in group plans or schedules would require a new study and collective agreement. If a new QF interconnected to a group's line and decided to join the group, PGandE could insert that QF in its place in the group timetable. The new QF could also ask to be treated individually, exclusive of the group.

The collective group approach was developed by the staff during discussions with proponents of the Island Approach. PGandE expressed a willingness to try out the approach if several practical problems could be resolved. Since this approach would be used on a case-by-case basis only, Commission resolution of the details of the approach is unnecessary. An expression of Commission support of the approach in concept would help facilitate negotiations.

The advantages of this method are that QFs can schedule development in an entire region with advanced certainty as to their loss factors, and that since the arrangement would be negotiated, no CPUC hearings would be involved.

There are several problems that would have to be addressed before all parties could agree to such an approach for a particular area. The collective must not foreclose other QFs from developing in the area. Loss factors must be developed for QFs that start deliveries before the total collective MWs are developed. Perhaps a single set of interim loss factors can be negotiated. In addition, details as to updating the collective loss factors because of changes in timing, interconnection facilities and MWs must be worked out. Finally, QFs must be comfortable with the fact that under this approach much time may be spend in negotiations and that loss factors may not be known as far in advance as with other approaches.

APPENDIX II

CALCULATING PROJECT-SPECIFIC LOSS ADJUSTMENT FACTORS

I. THE LOAD FLOW PROGRAM

PGandE's Load Flow program models the positive sequence power flow in an electrical network. It is used to determine the steady-state conditions of power flow, voltage and angle.

The Load Flow program is used at PGandE to model the PGandE system which consists of 1500 buses, 1900 lines and 400 transformers. It is a detailed model of the entire PGandE area transmission system from 500 kW through 60 kV.

Input Data for the Load Flow Program

The input data and assumptions used in PGandE's Load Flow program fall into three major categories:

- System equipment and physical characteristics,
- Load, and
- Resources.

1. System equipment and physical characteristics. The system equipment and physical characteristics represented in the model include all the lines, substation equipment, switches, transformers, capacitors, condensors and other equipment existing on the system in the test year. Line impedances and admittances, based on line length, conductor sizes and types, tower configurations and operating voltages are represented. Transformer resistance, reactance, admittance and no-load losses are also represented in the model. Transformer taps and the voltage limits of the regulating transformers are represented.

2. Load. The load data used in the program are based on the Company's most recently adopted load forecast. Real and reactive loads are represented in MW and MVAR at each bus.

PGandE forecasts the coincident peak load for the service area. The peak load is allocated by the transmission planners to each of PGandE's 13 Divisions using historic information. Further disaggregation to the substation level is based on metered substation data and forecasted conditions for each substation. Thus, load at each bus in the model is a close representation of the predicted load based on recorded data and forecasted conditions.

3. Resources. Real power net outputs are represented in MW. Reactive limits in MVAR are set according to generator capability curves, modified according to actual operating experience.

(a) Thermal. Thermal generation is dispatched according to the fuel efficiency curves of individual turbine generators taking into account incremental losses. The curves used in the Load Flow program are routinely updated by PGandE's Electric Operations Department.

(b) Hydro. Hyro generation modeled in the Load Flow is based on average historical year data.

(c) Geothermal. Data to simulate geothermal is based on the historic operating pattern and the number of units scheduled for installation in the period under study.

(d) Nuclear. For the system peak the assumption is that Diablo Canyon and Rancho Seco operate at maximum capacity. The annual capacity factor of Diablo is assumed to be 65 percent (76.5 percent summer, 56.7 percent winter) and for Rancho Seco, 66.1 percent (78.4 percent summer, 57.2 percent winter).

(e) Helms Pumped Storage. Helms is shown in the generating mode for the system peak and over the summer and winter peak periods. Helms is shown in the pumping mode in the off-peak periods and shutdown for the partial-peak periods.

(f) Interties. PGandE imports and exports power over transmission interties that connect PGandE to BPA to the north and Southern California Edison to the south. PGandE is also connected to Sierra Pacific over an eastern intertie. In the Load Flow, the projected power flow into and out of the PGandE system over the interties is represented by extrapolating historical data to match the projected intertie capacity, modified to reflect changes in contractual arrangements.

A wheeling contract is treated the same as a QF contract. Out-of-area wheeling is modeled as an intertie import or export.

(g) Existing QFs. QFs are modeled with the best available historic data and/or generic meterological and hydrological data. Thermal QFs are assumed to have a 90 percent capacity factor unless other data are available.

II. ELECTRIC DISTRIBUTION SYSTEM ANALYSIS (EDSA) PROGRAM

The EDSA program is used routinely at PGandE for primary distribution system planning and analysis. The program models 2,700 distribution circuits individually. The program calculates the conductor loading, voltage drop, real and reactive power flow and losses on each line section of the circuit. Because the program treats each circuit individually, it differs from the Load Flow

program which calculates losses for the entire network at once and for each line individually. The difference between the programs reflects the fundamental difference between the interconnected transmission network and the radial primary distribution system.

Input data for the EDSA program

The input data and assumptions used in PGandE's EDSA program include the electrical characteristics, load and any generation for each distribution circuit.

The program includes a mathematical representation of the electrical characteristics of the conductor and all line equipment of each primary distribution circuit.

All load and generation along the circuit are modeled. Load and generation on each circuit for each test year is estimated based on historic patterns and any additional information available to the planner at the time.

OIR-2 LINE LOSS METHODOLOGY

J. C. Coulter, C. L. Thomas and representatives from Law and Rate Departments attended an Advisory Group Meeting on October 25 in Sacramento. This meeting was called so that the QFs could formulate a response to PGandE's report on Loss Adjustment Factor Calculation Methodology.

The Advisory Group voted (with a 60% to 40% margin) to:

1) Adopt PGandE's project specific methodology.

2) Accept Loss Adjustment Factors based on this methodology.

3) Request full disclosure of PGandE's load flow input/ output data.

4) Resolve the remaining technical issues by asking PGandE to conduct additional studies.

5) Allow QFs to request at PGandE's cost the recalculation of Loss Adjustment Factors after the technical issues have been resolved.

CERTIFICATE OF SERVICE
BY ELECTRONIC MAIL

I, the undersigned, state that I am a citizen of the United States and am employed in the City and County of San Francisco; that I am over the age of eighteen (18) years and not a party to the within cause; and that my business address is Pacific Gas and Electric Company, Law Department B30A, 77 Beale Street, San Francisco, CA 94105.

I am readily familiar with the business practice of Pacific Gas and Electric Company for collection and processing of correspondence for mailing with the United States Postal Service. In the ordinary course of business, correspondence is deposited with the United States Postal Service the same day it is submitted for mailing.

On the 27th day of August, 2010, I served a true copy of:

PACIFIC GAS AND ELECTRIC COMPANY'S (U 39-E)
MOTION TO DISMISS COMPLAINT
OF
RIO BRAVO ROCKLIN

[XX] **Electronic Mail**: By serving the enclosed document, via electronic mail transmission, to each of the parties with an electronic mail address listed on the official CPUC Service List for Docket No.C.10-07-020.

I certify and declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on this 27th day of August, 2010 at San Francisco, California.

/S/
ELIZABETH J. DIAMOND