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PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

COMMISSION ADVISORY
AND COMPLIANCE DIVISION
Energy Branch

RESOLUTION E-3371
April 20, 1994

R E S O L U T I O N

RESOLUTION E-3371. PACIFIC GAS AND ELECTRIC COMPANY REQUEST FOR APPROVAL OF A PILOT LOAN PROGRAM FOR THIRD-PARTY FINANCING TO RESIDENTIAL CUSTOMERS FOR ENERGY EFFICIENCY IMPROVEMENTS.

BY ADVICE LETTER NO. 1818-G/1453-E AND ADVICE LETTER NO. 1818-G-A/1453-E-A, filed on December 1, 1993 and January 18, 1994, respectively.

SUMMARY

1. In this advice letter, Pacific Gas and Electric Company (PG&E) requests approval to participate in a pilot loan program for third-party financing to residential customers for energy efficiency improvements. The Federal National Mortgage Association (FANNIE MAE) has developed the pilot program in order to provide additional funding for energy efficiency improvement projects or measures. FANNIE MAE requires PG&E's involvement in order to implement this program. Use of ratepayer funds is limited to a loan default rate of 0.5 percent of cumulative losses. Existing demand-side management (DSM) funds would be used to fund any losses.

2. This resolution authorizes PG&E to participate in the pilot loan program with certain modifications.

3. The Division of Ratepayer Advocates (DRA) filed a timely protest to this advice letter. DRA's protests have been considered and certain aspects are granted. The pilot program will not be eligible for shareholder incentive earnings. A cap is placed on the program and PG&E is directed to develop meaningful criteria to evaluate the effectiveness of the program.

BACKGROUND

1. PG&E is requesting approval to test the use of third-party financing in association with FANNIE MAE to stimulate energy efficiency in its service territory. According to PG&E, the pilot program will provide its residential customers with access to low-cost third-party funds for implementing energy efficiency measures. Under the pilot program, FANNIE MAE and a primary lender (projected to be the Bank of America), will originate and

service unsecured loans for customers' residential energy efficiency projects or measures. PG&E will identify the energy efficiency measures eligible for this program, and will market this program in conjunction with its rebate programs. A customer may participate in either the loan program or the traditional rebate program, but not both.

2. PG&E expects that this type of financing program will increase the rate of penetration and customer adoption of energy efficient measures, reducing the cost of DSM programs for non-participating customers. PG&E believes that this program will overcome many of the market barriers associated with traditional rebate programs, allowing more customers to invest in energy efficiency.

3. As proposed, PG&E participation in the loan program is a pilot effort. If approved, the program is scheduled to begin during the first quarter of 1994 in Climate Zone 13. Climate Zone 13 is in the Central Valley and is classified as "extremely hot." PG&E proposes that this implementation phase last approximately 4 months. The pilot program will be monitored to identify and correct any necessary program changes to ensure that the program is operating effectively. Measures of success include cost-effectiveness, customer convenience, and customer participation. If the implementation phase is successful, the program is proposed to be extended system-wide through December 31, 1995, which is the end of the current General Rate Case cycle. If the loan program is determined to be successful, PG&E will propose that it be incorporated in its DSM programs in the 1996 Test Year GRC proceeding.

4. As proposed, administrative costs (including the bad debt component) for the pilot program would utilize currently-authorized funding for the Residential Appliance Efficiency, Residential Weatherization, and Residential Fuel Substitution programs.

5. Loan amounts will range from $2,500 to $10,000 for a term up to 60 months. The minimum loan may be reduced to $1,000 for low-income customers and the loan terms may be extended. The loan will be sold to FANNIE MAE after the primary lender approves the loan and disburses the funds to the customer. The primary lender retains responsibility for billing the customer, processing payments, and collecting on delinquent accounts. The initial interest rate will be established after the primary lender determines the costs for originating and servicing the loans. Currently, the unsecured loan interest rate is approximately 9 percent.

6. The primary lender will screen loan applications for all participating customers using a "credit scoring" process, which will be developed and agreed upon jointly by the primary lender, PG&E, and FANNIE MAE. PG&E states that research demonstrates that the loan default rate for such loan programs typically falls within the 0.5 to 2.0 percent range. FANNIE MAE has three risk-sharing options: 1) FANNIE MAE absorbs 0.5 percent of the

cumulative losses; 2) FANNIE MAE absorbs 1.0 percent of the cumulative losses; and 3) FANNIE MAE absorbs 1.5 percent of the cumulative losses. The option selected determines the interest rate applied to the loans. PG&E has selected Option 3 in order to minimize ratepayer risk. Thus PG&E's ratepayer exposure due to bad debt will be limited to 0.5 percent. Any bad debt absorbed by PG&E would be included in the administrative cost of the program and would be factored into the program's cost-effectiveness analysis.

7. As proposed by PG&E, in order to qualify for participation in this program, the loan package of proposed energy efficiency investments must pass all applicable cost-effectiveness standards (i.e., the Total Resource Cost (TRC) test and Utility Cost (UC) test) and satisfy program guidelines associated with PG&E's residential DSM programs. In addition, all fuel substitution measures must pass the three-prong test[1]; and measures with a commercialization plan must be approved by PG&E's Conservation Energy Efficiency (CEE) Advisory Committee. PG&E states that all measures to be included in the loan package must be cost-effective, but requests an exemption for high performance windows and lighting fixtures.

8. PG&E proposes that all cost-effective measures financed under this program be eligible for the same shareholder incentive mechanism currently applicable to such measures. No shareholder incentives are proposed for fuel substitution measures (which are not currently eligible for shareholder incentives). PG&E recognizes that there may be a negative shareholder benefit associated with windows and lighting fixtures. Since the proposed program looks at the cost-effectiveness of the package as a whole, PG&E proposes to integrate the positive and negative shareholder impacts in this program. PG&E submitted revised 1994 shareholder incentive targets in Advice Letter 1800-G-A/1446-E-A, filed on February 1, 1994, which incorporate the impacts of the proposed loan program.

9. On December 1, 1993, PG&E filed Advice Letter 1818-G/1453-E. Supplemental information was included in Advice Letter 1818-G-A/1453-E-A, which was filed on January 18, 1994.

NOTICE

The Advice Letter and Supplement were noticed in accordance with section III of General Order 96-A by publication in the Commission Calendar and distribution to PG&E's advice filing service list.

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1 The three-prong test for fuel substitution measures was adopted in D.92-10-020 and clarified in D.92-12-050 and D.93-11-017.

PROTESTS

1. The Commission Advisory and Compliance Division (CACD) received one timely-filed protest from the Division of Ratepayer Advocates (DRA) on December 10, 1993. PG&E responded to DRA's protest on December 29, 1993.

2. The Commission received letters of support for PG&E's proposal from the Department of Energy, FANNIE MAE, and the Alliance to Save Energy.

3. DRA raised three issues in its protest: 1) PG&E should not receive any shareholder incentives from this program, 2) PG&E's involvement will increase costs to participants, and 3) the belief that PG&E's involvement in this program is not a necessity.

4. DRA believes that it is inappropriate for PG&E to earn shareholder incentives via the shared savings mechanism on measures installed through the loan program. DRA states that this program is conceptually quite different from the Residential Appliance Efficiency Incentive program (RAEI), on which PG&E has been allowed to earn shared savings incentive dollars, and asserts that PG&E's guarantee of a portion of the loan losses does not "lead to the installation of a more efficient appliance than would have been installed in the absence of the program." DRA is particularly concerned that many measures listed in Appendix A of the Advice Letter use a Net-to-Gross ratio of 1.0 for cost-effectiveness calculations.

5. DRA also states that PG&E failed to include appropriate Measurement, Forecasting and Regulatory Reporting (MFRR) plans that are consistent with the protocols adopted in D.93-05-063. In addition, DRA states that several measures included in Appendix A to the Advice Letter do not pass the TRC or UC tests, and that this is in conflict with adopted DSM rules. DRA also notes that PG&E is requesting that certain residential Fuel Substitution measures be included with this program, but does not indicate whether each measure passes the three-prong test.

6. DRA believes that PG&E's involvement with the loan program will increase the costs to participants. Although the interest rate will be reduced because PG&E absorbs some of the risk, DRA points out that the incremental cost of this risk will be borne by ratepayers. In addition, there is the potential for increased earnings and duplicative administrative costs.

7. Finally, DRA claims that PG&E's involvement with this program is not necessary. DRA describes the history of the Energy Efficient Mortgages market as an indicator of the natural evolution of this type of financing instrument, an evolution which occurred without PG&E's direct involvement.

8. The letters of support received from FANNIE MAE, the Department of Energy, and the Alliance to Save Energy commend the proposed program and point out the importance of approving

such a partnership program. FANNIE MAE, in particular, stresses PG&E's critical role in this emerging market.

9. After further discussions with DRA, PG&E informed CACD that certain modifications to the original advice letter were requested. In response to DRA's protest, PG&E has modified its proposed pilot to be ineligible for shareholder incentive treatment and to track pilot program costs separately in the "Other Residential" category. In addition, PG&E will conduct a measurement study to determine the pilot's success (net of the free rider effect) and the size of the market potential. PG&E proposes a program expenditure ceiling of $1,000,000: $400,000 in 1994 and $600,000 in 1995, with maximum ratepayer exposure for loan default not exceeding $300,000 during the length of the pilot. Any liability above this amount will be borne by PG&E's shareholders.

DISCUSSION

1. PG&E has presented the pilot loan program as continuing through December 31, 1995, using existing funds (and therefore causing no rate increase) and not resulting in withdrawal of service. CACD believes that this request can be handled through the Advice Letter forum, but as stated in Resolution E-3342 (in which the Commission authorized a financing option for San Diego Gas & Electric Co.), CACD cautions PG&E, and all utilities interested in presenting new DSM programs to the Commission, to consider carefully the appropriateness of the Advice Letter forum for new programs. CACD recommends that PG&E be allowed to operate the pilot, as modified below, from the effective date of this Resolution through December 31, 1995.

2. CACD recommends that PG&E fully involve its DSM Advisory Committee in discussions involving DSM program changes and implementation and incorporate members' comments and concerns prior to filing advice letters. The Advisory Committee process was established to augment effective program implementation and to expedite the regulatory process. CACD believes that the Advisory Committee process is important and should not be circumvented. Had Advisory Committee members been fully consulted, CACD believes that any concerns regarding this advice letter could have been effectively resolved in a more timely manner.

3. PG&E states that its involvement in the pilot loan program is designed to respond to barriers that have prevented traditional DSM programs from achieving more customer investment in cost-effective energy efficient measures and services. PG&E hopes to increase participation by residential customers who may not have the up-front capital to install energy efficient equipment. In addition, this program, as proposed, is designed to capture lost opportunities. Rebate programs, while effective, may not completely overcome the first cost barrier. Because the program is proposed on a pilot basis, many of the program details we would expect in a permanent program proposal are not found in this filing. CACD believes that these

deficiencies may be overlooked since the program is proposed on a pilot basis but expects more detail upon any request to move beyond a pilot program. In general, however, CACD recommends that the loan program be explored on a pilot basis, since it provides a new delivery mechanism for energy efficiency.

4. The Commission recently approved programs which offer financing options for Southern California Edison Co. (SCE) and for San Diego Gas and Electric Co. (SDG&E) in Resolutions E-3337 and E-3342, respectively. While these financing arrangements are dissimilar and leverage ratepayer funds in quite different ways, both SCE's and SDG&E's programs are geared toward the nonresidential ratepayer and are designed to utilize a greater percentage of ratepayer dollars than PG&E's proposed program. CACD believes it is reasonable to test the market for residential financing, particularly since ratepayer exposure is so limited.

5. CACD views this pilot program as a step which fits into the Commission's overall policy framework for DSM: we have moved from an era of command-and-control regulation to one of decentralized incentive regulation. The Commission has expressed interest in limiting general ratepayer involvement in DSM, lowering existing market barriers to DSM, and testing an emerging marketplace for such up-front financing programs. The pilot loan program, as modified, achieves these goals in a very cost-effective manner. PG&E provided a table in its advice letter filing which compared existing rebated measures for the 1993 program year under a financing scenario. According to PG&E, the cost to ratepayers of providing energy savings under traditonal rebate programs was $3.7 million, whereas these savings could have been achieved for $0.8 million under the financing program. As stated in Public Utilities Code Section 701.1, "a principal goal of electric and natural gas utilities' resource planning and investment shall be to minimize the cost to society of reliable energy services and to encourage the diversity of energy sources through improvements in energy efficiency and development of renewable energy resources." In addition, the utilities are directed to "exploit all practicable and cost-effective conservation and improvements in the efficiency of energy use and distribution that offer equivalent or better system reliability, and which are not being exploited by any other entity."

6. Contrary to DRA's objections, FANNIE MAE has stated that PG&E's involvement is, in fact, essential for the success of this program. FANNIE MAE specifies the following factors in requiring PG&E's involvement:

1) Marketing and promotion
2) Identification of appropriate retrofit measures
3) Project Management
4) Quality Control

According to FANNIE MAE, utility involvement is critical. FANNIE MAE is a secondary market lender and needs an entity

which can promote energy efficiency directly. FANNIE MAE believes this is an efficient use of resources; a way to leverage the existing rebate market to stimulate an emerging market. FANNIE MAE regards this program as a national pilot and has carefully selected PG&E for its innovative approach to DSM.

7. CACD recommends that DRA's objections to PG&E's eligibility for earnings based on its shared savings mechanism be carefully considered. PG&E is not directly influencing customer installation, but instead is providing information regarding programs and the relative costs and benefits of various options for the customer. CACD agrees that PG&E should not receive shareholder incentive treatment for the pilot program.

8. CACD believes it is reasonable to accept the cap on program expenditures proposed by PG&E. While it is important to evaluate the impact of alternate delivery systems in DSM, it is also important to keep such pilot programs small. PG&E is still obligated to market its rebate programs in order to achieve the goals established in its 1994 forecast filing.

9. CACD recommends that the financing program be tracked as a non-earnings item in the Residential Energy Management Services (EMS) category, rather than as a non-earnings item in the "Other Residential" category. The PG&E's role consists of the functions identified by FANNIE MAE, as discussed above, which fit within the definition of Residential EMS:

> Programs intended to provide customer assistance in the form of information on the relative costs and benefits to the customer of installing measures or adopting practices which can reduce the customer's utility bills. The information is solicited by the customer and recommendations are based on the customer's recent billing history and/or customer-specific information regarding appliance and building characteristics.

In addition, classifying this programs under the EMS category mitigates the Measurement and Evaluation concerns of both CACD and DRA. EMS programs currently receive performance adder incentive treatment. Performance adder incentive mechanisms generally apply to programs which may not be cost-effective and/or accrue energy savings which may be difficult to measure. CACD recommends that the program be considered for EMS categorization, should PG&E seek to continue it after the pilot period. If PG&E wishes to apply for continued funding of this program, a thorough analysis of the risks and rewards related to financing programs must be included, as well as a discussion of the pros and cons of financing delivery mechanisms compared to traditional rebate programs.

10. Both PG&E and FANNIE MAE have emphasized the importance of including an integrated package of options in the loan packages in order to capture lost opportunities. This may have other

advantages in that increased market penetration for high-efficiency windows and lighting fixtures may correspondingly increase the cost-effectiveness of these measures. For the limited purposes of the pilot program, CACD believes it is reasonable to include a comprehensive package of energy efficiency measures in the loan packages. However, the Commission has not yet determined guidelines for market tranformation and commercialization programs. CACD recommends that PG&E carefully monitor the loan packages and the cost-effectiveness of the measures included, and follow the procedures outlined in its advice letter filing. CACD also recommends that this aspect of the program be evaluated carefully, should PG&E decide to request additional funding for this program in its 1996 general rate case.

11. In addition to the modifications recommended above, CACD recommends ratepayer expenditures for the pilot be subject to Commission review of reasonableness. A Commission finding of imprudence, a violation of program conditions or guidelines, or other misuse of ratepayer funds in the the loan pilot could lead to discontinuance of the program, disallowance, and/or penalty. CACD fully expects that PG&E will make its best effort to minimize the use of ratepayer funds for this pilot while maximizing ratepayer benefits. Funds utilized for this program will be subject to the same reasonableness review as all other ratepayer-financed DSM programs.

12. Finally, CACD recommends that PG&E develop very specific criteria for evaluating the success of this program. The evaluation should include both process, market, and impact evaluation criteria. The criteria should be developed early so that questions about the pilot program's effectiveness can be addressed and the correct data collected. CACD recommends that PG&E develop these criteria and its evaluation design in consultation with DRA and CACD.

FINDINGS

1. PG&E filed Advice Letter 1818-G/1453-E and 1818-G-A/1453-E-A on December 1, 1993 and January 18, 1994, to request Commission approval to participate in a pilot loan program for third-party financing using FANNIE MAE funding for residential energy efficiency improvements. The pilot loan program would use existing authorized DSM funds.

2. PG&E's proposed use of currently authorized DSM funds is intended to improve the utility's ability to capture demand-side resources in its service territory.

3. This request can be addressed through a Commission Resolution because of its pilot nature.

4. Ratepayer expenditures for PG&E's participation in the pilot loan program should be limited to $1,000,000 for the duration of the pilot program: $400,000 in 1994 and $600,000 in 1995, with ratepayer exposure due to loan default limited to

$300,000 for the duration of the pilot. Expenditures for this program should not be eligible for shareholder incentive treatment.

5. All ratepayer funds used for the pilot loan activities shall be subject to Commission review of reasonableness. A Commission finding of imprudence, a violation of program conditions or guidelines, or other misuse of ratepayer funds in the pilot could lead to discontinuance of PG&E's participation in the program, disallowance, and/or penalty.

6. Thorough analysis and evaluation of the use of ratepayer funds is essential before moving beyond a pilot loan program.

THEREFORE, IT IS ORDERED that:

1. Pacific Gas and Electric Company is authorized to establish a pilot demand-side management third party financing loan arrangement using Federal National Mortgage Association funding. The pilot program is approved as described in Advice Letter 1818-G/1453-E, 1818-G-A/1453-E-A, and as modified herein. The pilot is authorized from the effective date of this Resolution through December 31, 1995.

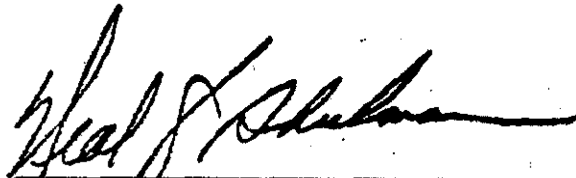
2. Pacific Gas and Electric Company is authorized to participate in the pilot loan program using existing funds and applying the appropriate fund shifting guidelines.

3. The Division of Ratepayer Advocates' protest regarding appropriate treatment of the shared savings mechanism is granted, which incorporates its concerns regarding complete and proper Measurement, Forecasting and Regulatory Reporting. All other aspects of its protest are denied.

4. If Pacific Gas and Electric Company plans to pursue its participation in the pilot loan program, as modified in this Resolution, it may file a supplemental Advice Letter to incorporate our orders within thirty days from the effective date of this Resolution. The supplement will be effective on the date filed.

5. This Resolution is effective today.

I hereby certify that this Resolution was adopted by the Public Utilities Commission at its regular meeting on April 20, 1994. The following Commissioners approved it:



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