ALJ/vdl \*

Decision S2 OS 021 AUG 18 1982

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Power & Light Company for Authority to Institute a Home Insulation Assistance and Financing Program.

Application 59309 (Filed November 2, 1981)

(For appearances see Decisions 91497 and 92655.)

OPINION ON PETITION FOR MODIFICATION OF DECISIONS 91497 AND 92655

### Summary

This decision adopts the modifications that Pacific Power & Light Company (Pacific) has proposed in its Home Insulation Assistance and Financing Program which would (1) revise the repayment schedule for zero interest weatherization loans, (2) establish a weatherization rebate option as an alternative to such loans, and (3) create a heat pump water heating demonstration program which would involve a limited number of residential customers. The heat pump demonstration program that is adopted is smaller than the program originally proposed by Pacific. The Commission declines to adopt a demonstration solar hot water heating program, which was also proposed by Pacific.

### Procedural Background

Pacific petitions the Commission to modify Decisions (D.) 91497 and 92655 dated April 2, 1980 and January 28, 1981, respectively. D.91497 authorized Pacific to institute a zero interest financing (ZIP) program for improving the insulation and weatherization of residences in Pacific's California service area and specified accounting and ratemaking treatment for the program. D.92655 amended D.91497 to limit the total amount for a loan under the program, require certain warranties for work done, and require the program to conform to the California Residential Conservation Service (RCS) program. By this petition Pacific requests the program

- 1 -

be modified further to offer additional types of conservation incentives for its customers and to alter the terms of future zero interest weatherization loans.

With a view toward eliminating the need for a hearing on this petition the assigned administrative law judge (ALJ) contacted all parties to the proceeding suggesting that comments on Pacific's proposal could be made in writing with an opportunity to reply and request a hearing if necessary. The procedure allowed parties, except the staff, to make comments if they wished; the staff would review these and prepare a report, and then the comments and the staff report would be given to all parties for further comment. Letters were received from Thomas M. Ducey, an interested party from Crescent City, dated January 14, 1982, and from Nicholas R. Tibbetts, representing Assemblyman Douglas H. Bosco, dated February 19; the staff report was received April 1; those three documents were distributed to all parties by the ALJ on April 5; Ducey made some further comments in a letter dated April 7. No one requested a hearing and it appears none is necessary.

# The Present Program

D.91497 approved zero interest financing by Pacific for insulation and weatherization retrofit of single-family residences and duplexes to which Pacific furnished power for electric space heating prior to November 30, 1979. Residence owners could request Pacific to conduct a home energy analysis to determine what additional insulation and weatherization improvements should be made and, if the owner consented, Pacific would contract and pay for the improvements. The owner would repay Pacific without interest if the residence were sold or, in any event, by monthly payments equal to 1% of the cost rounded to the nearest \$5 (minimum payment \$5) commencing ten years after completion of the improvements. D.92655 modified the program to allow owners, instead of Pacific, to select a contractor to make the improvements, required a means of insuring payment, set a

- 2 -

ceiling on the amount financed, and provided for warranties equaling or exceeding those under the California RCS program; also, it expanded eligibility to include multifamily dwellings individually heated and metered and permanently situated mobile homes. Pacific's Proposed Modification

By this petition Pacific would further modify the program to offer additional types of incentives to electric customers and to alter the terms of future zero-interest loans. Specifically, Pacific requests approval of:

- A change in ZIP to reduce the payment deferral from ten years to one. This change is requested because of the current low turnover of residential property due to present economic conditions. The low turnover has reduced the expected repayment of loans resulting from property sales.
- 2. A weatherization cash rebate program as an alternative to the present ZIP. Pacific claims that the establishment of a weatherization rebate option will improve participation in the program by giving customers an alternative method for receiving a conservation subsidy. Rebates are payable to residential customers for installation of ceiling insulation, floor and water pipe insulation, storm windows and doors, duct insulation, and timed thermostats, in cases where such items are shown to be costeffective by a home energy analysis and where such items have undergone a post-installation inspection by Pacific. The rebate size would be determined by multiplying the number of kilowatt-hours that the conservation measures will save during the first five years after installation by 6.5¢, though in no case shall the rebate size exceed the installed cost of the measure.
- 3. Heat pump water heater and active solar domestic water heater demonstration programs. A limited number of residential customers who install heat pump water heaters or active solar water heaters will receive a rebate as a part of this demonstration

- 3 -

program. The measures must first be shown to be cost-effective through a home energy analysis and also must receive a postinstallation inspection by Pacific. The rebate size shall be determined by multiplying the number of kilowatt-hours that the conservation measures will save during the first five years after installation by 5.6¢. The demonstration program participants will have their usage analyzed in the context of a particular statistical sampling method devised by Pacific.

The size of the weatherization rebate is gauged to be commensurate with those offered to Pacific's residential customers in other states. The weatherization rebate is larger per unit of energy saved than the proposed heat pump/solar hot water heating rebate due to the timing of the weatherization energy savings, which occur proportionately more during winter peak periods, when electricity production costs are higher and conservation savings more valuable.

Appendixes A, B, and C to Pacific's petition contain detailed information on the standards, requirements, applicability, service provisions, billing and accounting, and ratemaking treatment associated with the requested modifications. Ducey's Position

Ducey included several comments on issues that were either decided by D.91497 and D.92655 in this proceeding or in decisions on Pacific's last two general rate cases.<sup>1</sup> These comments include a recommendation to abandon the entire Pacific program in favor of existing state programs, criticism that Pacific has malingered and hardly gotten the program off the ground before attempting to expand it, and the claim that because of the jurisdictional allocation procedure used by the Commission to set Pacific's rates the benefits to California customers of Pacific's program are nil.

<sup>1</sup> D.91326 and D.92411 in Application (A.) 58605 and D.82-05-042 in A.60560.

Ducey's comments relevant to this petition are:

 The proposal to start repayment after one year instead of ten should be adopted.

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- 2. The proposed rebate program would be disadvantageous to customers not participating because nearly all costs would be allocated to nonparticipating customers, and would cause higher rates and be expensive to administer. The rebate program would be overfunded and result in doing a given job in the most expensive way.
- 3. The pilot program for solar and heat pump water heating could cause a great burden on ratepayers unless the financial assistance per participant is strictly limited.
- 4. There are sufficient incentives for the residential consumer to conserve including current high energy rates; no new or expanded programs that increase rates should be approved.

#### Tibbetts' Position

Like Ducey, Tibbetts touched on several matters we have already decided or will decide in the proceedings noted in Footnote 1. Those included allocation methods, Oregon versus California rates, and spreading of conservation benefits among ratepayers in California and other jurisdictions.

Tibbetts' comments relative to this petition are:

 The need to expand the present program is neither documented nor warranted. Expansion of the program would be unnecessarily costly to California ratepayers especially in light of the 40% tax credit to Californians who weatherize. As Ducey points out, perhaps the greatest cause of declining residential usage is dramatically increasing rates.

- 5 -

- 2. The pilot program approach to underwriting selected installations of solar and heat pump water heaters is without merit. Pacific allocates 225 units to California and 4,050 to other states but none to Wyoming, the fastest growing state in Pacific's system in terms of percent increase in usage.
- 3. If the purpose of the program is experimental, Pacific and the Commission staff should check relevant literature to see if some of the answers may already be available. If empirical data are still required, concentrate the experiment in a single state such as Oregon.
- 4. If the Commission does authorize modification of the program, the oneyear payment deferral should be adopted.

## Staff's Position

Grayson Grove, a staff engineer in the Commission's Energy Conservation Branch (ECB) prepared the report and recommendations for ECB on this petition. Grove's report analyzes the proposed modifications, their cost of implementation, the concerns of Ducey and Tibbetts, and presents the ECB conclusions.

Grove disagrees with the proposal to change the deferral time on loan repayment to one year. He recommends elimination of the deferral entirely so there is consistency with Commission decisions for other utilities in California. (D.93891, December 30, 1981, D.93894, December 30, 1981, and D.82-02-135, February 17, 1982, for Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Gas Company, respectively.

Grove maintains that data gathered from the Order Instituting Investigation (OII) 42 solar demonstration program will provide enough information to determine the effectiveness of active solar domestic water heating systems. A separate demonstration

program by Pacific would not be beneficial to its ratepayers. Also, Pacific is proposing a program in Oregon and other states and data gathered there should be considered before implementing a program in California.

Grove recommends that only 100 of the 150 heat pump water heaters be installed; also, they should be installed where accurate measurement of the energy savings can be made. For its demonstration program, Pacific should adhere to the same warranties, specifications, and installation requirements used by PG&E, SDG&E, and Southern California Edison Company in similar programs. Grove attached a copy of those requirements to his report to be used as appendixes to this decision, if required.

Grove found that Pacific's petition contains costeffectiveness criteria and sufficient guidelines for the weatherization cash rebate proposal to warrant approval by the Commission. However, Grove recommends the following addition to the 11 provisions of service by Pacific:

The customer will agree to respond to a follow-up survey and/or a questionnaire in order to gather relevant data to evaluate the program.

Grove believes customers participating in the cash rebate program should have their monthly usage monitored to determine the actual energy savings generated so the Commission can have actual data on which to base future decisions in similar proceedings. If the weatherization cash rebate program is approved, customers should have the choice of it or ZIP as modified by this decision, but not both.

For all three measures, ZIP, cash rebate, and heat pump, Grove recommends careful consumption records of participants for 12 months before and 12 months after installation in order to evaluate the effectiveness of the programs.

- 7 -

# Discussion

Ducey and Tibbetts raise several issues in their comments on Pacific's proposal. We believe that no discussion or resolution of their comments on jurisdictional cost allocation, comparative state rates, or whether Pacific should have any weatherization program at all are necessary. These issues have been or will be decided in the proceedings noted in footnote 1. Their comments do, however, raise several issues relevant to our decision here, such as the need for a rebate program as an alternative to zero interest loans, the effect of the loan and rebate program on nonparticipating ratepayers, and the need for the proposed pilot programs.

Pacific claims that the weatherization cash rebate program should lead to increased customer conservation activities because it establishes an alternative means of receiving an incentive that may be more attractive to certain potential program participants. Customers who may be reluctant to incur an obligation of indebtedness may go ahead with their home weatherization measures if they can pay for them up front, aided by a cash rebate.

We concur with Pacific's assessment of the need for the rebate option. We note our adoption of a rebate program in the Southern California Gas Company service territory. That program promises to enhance customer participation and involve lower administrative costs per weatherization job than the loan alternative.

Both the revised loan program and the rebate program are cost-effective and should benefit both program participants and nonparticipating ratepayers. Cost-effectiveness to program participants is assured by the home energy analysis that precedes all conservation item installations. Cost-effectiveness to nonparticipants results because conservation measures produce large energy savings in the context of the electrically heated homes of

- 8 -

this cold winter area and because these energy savings substitute for new generating facilities which, in Pacific's service territory, are far more expensive than the existing plant reflected in current rates. Staff analysis indicates, for example, that a typical weatherization job in Pacific's program will cost \$1,373, will involve a \$828 loan subsidy or \$1,236 rebate paid for by nonparticipating ratepayers, and will produce \$2,876 in nonparticipant benefits through reduced requirements for new highcost generation facilities.

The fact that Pacific spreads California conservation program costs only over California rates does not alter this conclusion about nonparticipant cost-effectiveness. This is because the California weatherization program is a part of a complementary systemwide weatherization effort in which each state's program is paid for within the state, while contributing generation cost reduction benefits to the whole Pacific system. All states on the Pacific system except Wyoming (which has a proportionately much smaller residential customer group), have now adopted, or are in the process of adopting, both weatherization loan and rebate programs. We support this systemwide weatherization effort.

We agree with Ducey and Tibbetts that Pacific's proposal to shorten the conservation loan repayment deferral to one year will further improve program cost-effectiveness and should be adopted. We agree with the staff that the new rebate program should include datagathering requirements that will aid in the future evaluation of the effectiveness of this program.

The need for the proposed solar hot water heating program is less compelling. We concur with Tibbetts, Ducey, and the staff that sufficient data on solar hot water heating are already being generated in the programs of the other California utilities. The need for a program in the California portion of Pacific's territory has not been shown.

We concur with the staff that a heat pump demonstration program should be adopted. While there are other heat pump demonstration programs in existence in California, they will not (unlike the case of solar) produce data relevant to Pacific's climatic area, and therefore Pacific's demonstration program should produce useful new information. However, we also concur with staff that Pacific's heat pump program should be reduced in size to 100 installations to reduce cost, should be carefully monitored, and should be subject to the same warranties, specifications, and installation standards required of other utilities in California. Findings of Fact

1. Pacific petitions the Commission to approve a:

- a. Reduction in the zero interest weatherization loan repayment deferral from ten years to one.
- b. Weatherization cash rebate program.
- c. Heat pump water heater and active solar domestic water heater demonstration program.

2. All parties to this proceeding were given the opportunity to respond to Pacific's proposal and to request a public hearing.

3. Several comments were received. No party requested a public hearing and none is necessary.

4. Reduction of the weatherization loan repayment deferral will reduce program costs and improve program cost-effectiveness.

5. The weatherization cash rebate program will offer a new type of incentive for California customers to participate in the program, thereby furthering conservation efforts of Pacific in California.

6. Facific has provided criteria to ensure weatherization rebate cost-effectiveness and, with the exception cited in Finding 7, sufficient guidelines for its weatherization cash rebate proposal.

7. The additional guideline required for Pacific's weatherization cash rebate program is the following provision of service recommended by the staff:

The customer will agree to respond to a follow-up survey and/or a questionnaire in order to gather relevant data to evaluate the program.

8. Customers will have the choice of the zero interestweatherization loan as modified by this decision or the cash rebate but not both.

9. Because data from other on-going California solar demonstration programs will provide enough information to determine the effectiveness of active solar domestic water heating systems, a separate demonstration program by Pacific in California is not needed.

10. The heat pump demonstration program will provide beneficial information for Pacific and its customers.

11. The staff recommendation of 100 heat pump water heater installations instead of 150 as proposed by the company will provide adequate demonstration program data.

12. The warranty, specifications, and installation requirements for heat pump water heater installations recommended by the staff and attached as Appendixes A and B are reasonable and should be used by Pacific for its program.

13. It is reasonable, for proper evaluation of the effectiveness of the ZIP, cash rebate, and heat pump programs, that careful consumption records of participants for 12 months before and 12 months after installations be made.

14. Because the modifications authorized by this decision will further Pacific's efforts toward conservation, this order should be effective on the date signed.

Conclusions of Law

 With the changes described in the above findings of fact and reflected in the following order, the Commission, under Chapter 6, Part 2, Division 1 of the Public Utilities Code, may grant Pacific's petition to modify its energy conservation program.

2. A public hearing on this application is not necessary.

## <u>ORDER</u>

IT IS ORDERED that:

1. Pacific Power & Light Company (Pacific) is authorized to amend its Home Insulation Assistance and Financing program as requested with the following exceptions:

- a. Eliminate the proposed active solar water heating demonstration program.
- Reduce to 100 the installations in the proposed heat pump water heater demonstration program.

2. In the implementation of the modified program, Pacific shall incorporate the following:

- a. The warranty, specifications, and installation requirements for heat pump water heater installations attached to this decision as Appendixes A and B.
- b. In addition to the 11 provisions of service guidelines contained in Pacific's cash rebate program include the following guideline:

"The customer will agree to respond to a follow-up survey and/or a questionnaire in order to gather relevant data to evaluate the program."

c. Electricity usage of participants in the ZIP, cash rebate, and heat pump programs for 12 months before and 12 months after installation shall be recorded and retained as available data to evaluate the effectiveness of these programs.

3. Customers of Pacific who participate in the program shall have the choice of obtaining zero interest financing or a cash rebate but not both.

4. In all other respects the petition of Pacific dated November 2, 1981 is denied.

This order is effective today. Dated <u>AUG 18 1982</u>, at San Francisco, California.

> JOHN E. BRYSON President RICHARD D. CRAVELLE LEONARD M. CRIMES, JR. VICTOR CALVO Commissioners

Commissioner Priscilla C. Grew, being necessarily absent, did not participate

I CERTIFY THAT THIS DECISION WAS APPROVED BY THE ABOVE COMMISSIONERS TODAY. Joseph E. Bodovicz, Exec

5-YEAR LIMITED WARRANTY - (Brand Name) HEAT PUMP WATER HEATER by (Name of Manufacturer) and (Name of Installer)

# 1. What is Covered

(<u>Name of Manufacturer</u>) certifies that the (<u>Brand Name</u>) heat pump water heater is free from defects in materials and workmanship or other malfunction or failure to perform, under normal use and service for a period of five years when used for residential purposes. This warranty covers all labor, components and component parts of the (<u>Brand Name</u>) heat pump water heater. This warranty includes the cost of all labor and materials necessary to correct defects caused by a material departure from good and workmanlike performance during installation by the installer. In order for this warranty to apply, the (<u>Brand Name</u>) heat pump water heater must be installed and used for residential purposes and in accordance with the Installation and Maintenance Instructions, furnished with the (<u>Brand Name</u>) heat pump water heater. This warranty does not apply to any defects caused by alteration, negligence or misuse by the customer or accidents unrelated to the normal operation of the (<u>Brand Name</u>) heat

#### 2. Length of Limited Warranty

The (<u>Name of Manufacturer</u>) warranty is effective for a period of five years from the date of installation. This warranty shall cease if the (<u>Brand Name</u>) heat pump water heater is removed from the residence where it is first installed.

If the residence where the (<u>Brand Name</u>) heat pump water heater is installed is sold, the warranty shall be transferred to all subsequent owner(s) of the residence. However, the warranty period shall terminate five years from the date of installation for the original customer of the (<u>Brand Name</u>) heat pump water heater.

### 3. Installer

The installer shall be a designated service representative of the manufacturer or shall contract with the manufacturer to provide labor to remedy manufacturing defects for the manufacturer. If the installer is not affiliated with the manufacturer, then the installer shall enter into a contract with the manufacturer under the same terms and conditions as between the manufacturer and affiliated installers.

#### 4. Repair and/or Removal and Reinstallation Costs

#### A. Home Repairs

Within the five-year warranty period, all in-home (field) repairs will be performed by (<u>Name of Installer</u>). The labor costs for said repairs will be absorbed by (<u>Name of Installer</u>) and all component parts or replacement units will be provided by (<u>Name of Manufacturer</u>) free of charge. In the event that (<u>Name of Installer</u>) is no longer in business, (<u>Name of Manufacturer</u>) shall arrange to have another installer perform such repairs with all labor and materials provided at no cost to the customer.

#### B. Factory Repairs

Within the five-year warranty period, if repairs must be performed at the factory, (<u>Name of Installer</u>) will pay for all labor costs associated with the removal of and reinstallation of the (<u>Brand Name</u>) heat pump water heater plus the costs of shipping to and from the nearest factory distributor or repair center. The (<u>Name of Manufacturer</u>) will provide all component parts and labor at its repair station or an alternative replacement unit free of charge to the installer and/or customer. If the installer is not available to provide such labor, the manufacturer shall arrange for field labor as necessary without cost to the customer. Any repairs performed without authorization of the manufacturer, other than emergency repairs, voids this warranty.

#### APPENDIX A Page 3

### C. Procedure for Requesting Repairs

For warranty service repairs, the customer should call or write to the Installer listed below.

### 5. Refund or Replacement

If the (<u>Brand Name</u>) heat pump water heater contains a defect which cannot be repaired after a reasonable number of attempts to do so, the customer may select either a refund of its price, or a replacement without charge. A replacement may consist of a new or factory rebuilt component or part of at least the same quality. The warranty period for the replacement unit shall terminate five years from the date of the original installation.

#### 6. Other Express or Implied Warranties

This warranty is the only express warranty offered by the (<u>Name of</u> <u>Manufacturer</u>) and (<u>Name of Installer</u>) on the (<u>Brand Name</u>) heat pump water heater.

Any implied warranties allowed by law are enforceable for a period not to exceed five years from the date of installation. Some states do not allow limitations on how long an implied warranty lasts so the above limitation may not apply to you.

#### 7. Consequential and Incidental Damages

(<u>Name of Manufacturer</u>) and (<u>Name of Installer</u>) shall be liable for (1) Consequential damages to the system in which the improperly functioning component or part is installed, and (2) Incidental expenses incurred to repair or replace, as necessary, any component or part injured as a result of such breach. This warranty gives you specific rights to consequential and incidental damages, and you also may have other rights which vary from state to state.

#### APPENDIX A Page 4

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### 8. Right to Arbitration

Any dispute between the customer and (<u>Name of Manufacturer</u>) and/or (<u>Name of Installer</u>) pertaining to this warranty may, at the option of the customer, be resolved by arbitration in California according to the rules of the American Arbitration Association.

Name of Purchaser Residence Address City, State

Model Number Serial Number Date of Installation

Name of Installer Address City, State Telephone Number Name of Manufacturer Address City, State

Toll-Free Telephone Number (As an alternative to a toll-free number, the manufacturer may supply a list of all service and repair facilities and their telephone numbers or maintain such a list at the premises of each retail seller of the (Brand Name) heat pump water heaters.)

NOTE: A card should be attached to the warranty so the purchaser can notify the manufacturer of the following information:

Name of Purchaser Residence Address City, State Model Number Serial Number Date of Installation

The notification card should be self-addressed to the manufacturer of the heat pump water heater. The card should state that return of the card is not required in order to honor the warranty.

(END OF APPENDIX A)

#### APPENDIX B Page 1

Dear Customer:

In order to receive the \$XXX rebate from (<u>utility's</u>) Heat Pump Water Heater Demonstration Program, the following measures must be taken:

## It is required that:

- Underwriters Laboratories approved retrofit type or adjoined tank type heat pump water heaters must be installed. See the attachment to this letter for brand names of approved units. (<u>Utility</u>) will maintain updated list.
- 2. A pressure-temperature relief valve plumbed to the outside or to a drain must be installed on all installations that include new water heaters or water heaters that are retrofitted with the heat pump units.
- A dielectric coupling must be installed wherever dissimilar metals are in contact in the plumbing system.
- 4. A heat trap that is designed to minimize the heat loss from the water heater tank must be installed at the tank hot water outlet on installations that include new water heaters.
- 5. On retrofit applications, rigid 3/4-inch metallic connections must be installed between the heat pump unit and the water heater tank. It is recommended that these connections be made of Type L 3/4-inch

### APPENDIX B Page 2

soft copper tubing with either flared or soldered fittings. (Installations must conform to all local plumbing and building codes.)

- 6. The heat pump water heater must produce enough heat to maintain the water temperature up to  $140^{\circ}$ F.
- 7. No retrofit installation will qualify if the existing water heater has a five-year warranty and is beyond five years of age; or if the existing water heater has a ten-year warranty and is seven years or older. (An exception will be made if the existing water heater is replaced at the time of retrofit.)
- The heat pump water heater cannot be used as a back-up for a solar water heating system.
- 9. For efficient operation, the heat pump water heater must be installed in an unheated basement, garage, crawl space or utility room where ambient air temperature does not go below 45°F and with at least six inches of clearance from a wall to allow ample room for air circulation. (Avoid installing unit in closed rooms of less than 1,000 cubic feet unless the door is adequately vented.)
- The dealer should provide a copy of an owner's manual.

#### APPENDIX B Page 3

11. The area must allow for proper drainage of condensate generated by the heat pump unit; if no drain or sink is available, a condensate pump must be installed.

# It is recommended that:

- On all water heater tank installations, the first four feet of exposed hot and cold water pipes leaving the water heater tank be wrapped with 3/4-inch insulation to minimize heat loss.
- On retrofit applications, a shut-off valve should be installed on each line between the heat pump unit and the water heater tank to facilitate servicing.

Most of these requirements are standard procedures and all should be understood and followed by your qualified installer. Please notify us after your system is installed by calling (<u>telephone number</u>). Soon after notification, a(an) (<u>utility</u>) representative will contact you to arrange a date for the inspection of your system.

Thank you for agreeing to participate in our Heat Pump Water Heater Demonstration Program. If you have any questions, please call (<u>name, telephone number</u>). Sincerely,

Utility Representative

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program. The measures must first be shown to be cost-effective through a home energy analysis and also must receive a postinstallation inspection by Pacific. The rebate size shall be determined by multiplying the number of kilowatt-hours that the conservation measures will save during the first five years after installation by 5.6c. The demonstration program participants will have their usage analyzed in the content of a particular statistical sampling method devised by Pacific.

The size of the weatherization rebate is gauged to be commensurate with those offered to Pacific's residential customers in other states. The weatherization rebate is larger per unit of energy saved than the proposed heat pump/solar hot water heating rebate due to the timing of the weatherization energy savings, which occur proportionately more during winter peak periods, when electricity production costs are higher and conservation savings more valuable.

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## Discussion

Ducey and Tibbetts raise several issues in their comments on Pacific's proposal. We believe that no discussion or resolution of their comments on jurisdictional cost allocation, comparative state rates, or whether Pacific should have any weatherization program at all are necessary. These issues have been or will be decided in the proceedings noted in footnote 1. Their comments do, however, raise several issues relevant to our decision here, such as the need for a rebate program as an alternative to zero interest loans, the effect of the loan and rebate program on nonparticipating ratepayers, and the need for the proposed pilot programs.

Pacific claims that the weatherization cash rebate program should lead to increased customer conservation activities because it establishes an alternative means of receiving an incentive that may be more attractive to certain potential program participants. Customers who may be reluctant to incur an obligation of indebtedness may go ahead with their home weatherization measures if they can pay for them up front, aided by a cash\_rebate.

We concur with Pacific's assessment of the need for the rebate option. We note that a large orlifornia rebate program that is currently in place in the Southern California Gas Company service territory, provides us with a positive precedent. That program that produced excellent customer participation and lower administrative costs per weatherization job than the loan alternative.

Both the revised loan program and the rebate program are cost-effective and should benefit both program participants and nonparticipating ratepayers. Cost-effectiveness to program participants is assured by the home energy analysis that precedes all conservation item installations. Cost-effectiveness to nonparticipants results because conservation measures produce large energy savings in the context of the electrically heated homes of