BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In The Matter of	DOCKET NO. 990720-EG
ADOPTION OF NUMERIC CONSERVATION GOALS AND CONSIDERATION OF NATIONAL ENERGY POLICY ACT STANDARDS (SECTION 111) BY JACKSONVILLE ELECTRIC AUTHORITY.	

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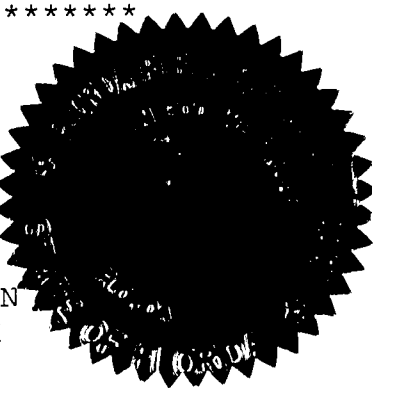

PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN JOE GARCIA COMMISSIONER J. TERRY DEASON COMMISSIONER SUSAN F. CLARK
DATE:	Monday, February 21, 2000
TIME:	Commenced at 9:30 a.m Concluded at 9:45 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR FPSC Division of Records & Reporting Chief, Bureau of Reporting

APPEARANCES:

MICHAEL B. WEDNER, City of Jacksonville, Office of General Counsel, 117 West Duval Street, Suite 480, Jacksonville, Florida 32202, appearing on behalf of Jacksonville Electric Authority (JEA).

WILLIAM COCHRAN KEATING, Florida Public Service Commission, Division of Legal Services, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0870, appearing on behalf of the Commission Staff.

I N D E X

WITNESSES

EXHIBITS

P R O C E E D I N G S

CHAIRMAN GARCIA: Counsel, will you read the notice.

MR. KEATING: Pursuant to notice issued January 12th, 2000, this time and place have been set for a hearing in Docket Number 990720-EG, adoption of numeric conservation goals and consideration of National Energy Policy Act Standards by JEA; Docket Number 990721-EG, adoption of numeric conservation goals and consideration of National Energy Policy Act Standards by Florida Public Utilities Company; and Docket Number 990722-EG, adoption of numeric conservation goals and consideration of National Energy Policy Act Standards by Orlando Utilities Commission.

CHAIRMAN GARCIA: We will take appearances.

MR. YOUNG: Good morning. I have given her my card. My name is Roy Young with the law firm of Young, van Assenderp, Varnadoe, and Anderson, 225 South Adams Street, Suite 200, Tallahassee, Florida, representing OUC.

MR. WEDNER: Good morning, Commissioners. I'm Mike Wedner from the Office of General Counsel of the City of Jacksonville, 117 West Duval Street, Suite 480, and we are counsel for JEA.

MR. KEATING: Cochran Keating on behalf of Commission staff.

CHAIRMAN GARCIA: You may proceed.

MR. KEATING: The first matter I think we should bring up, just to point out, is that the hearing for Docket Number 990721 concerning conservation goals for Florida Public Utilities has been continued. And as indicated in the order granting that continuance, the docket may be converted to a PAA proceeding to avoid the necessity of having to schedule another hearing. In which case staff would prepare a recommendation for the panels consideration at a future agenda?

And on the remaining two dockets, 990720 and 990722, on both dockets staff is in agreement with the parties' positions as indicated in the prehearing order. And staff is prepared to make an oral recommendation today for approval of those positions. We would recommend that we take each docket up individually.

CHAIRMAN GARCIA: Give me the first docket.

MR. GOAD: Actually, if you wouldn't mind if I can make a collective recommendation, would that be --

COMMISSIONER DEASON: Excuse me, don't we need to get the evidence in the record first?

MR. KEATING: Yes.

CHAIRMAN GARCIA: Let's try that.

MR. KEATING: The first docket, 990720-EG, for JEA, there are no intervenors in the docket, so unless

there are any questions from the panel for any of the witnesses, staff recommends that the prefiled testimony in that docket be moved into the record as though read.

CHAIRMAN GARCIA: There being no objection, show the evidence admitted.

MR. KEATING: Staff would also recommend that the exhibits submitted with that prefiled testimony be marked for identification as Exhibit Numbers 1, 2, 3 and 4 in the order that they are listed on Pages 8 and 9 of the prehearing order.

CHAIRMAN GARCIA: There being no objection --

MR. KEATING: Staff recommends that these exhibits be moved into the record.

CHAIRMAN GARCIA: There being no objection, show them moved into the record.

(Exhibit Numbers 1, 2, 3, and 4 marked for identification and admitted into evidence.)

BEFORE THE PUBLIC SERVICE COMMISSION

JEA

TESTIMONY OF JAMES H. ADAMS

DOCKET NO. 990720-EG

NOVEMBER 15, 1999

Q Please state your name and address.

A My name is James H. Adams. My business address is 21 West Church Street, T-7, Jacksonville, Florida 32202-3139.

Q By whom are you employed and in what capacity?

A I am employed by JEA as a Technical Services Consultant in the Business Clients Section of the Customer service division.

Q Please describe your responsibilities in that position.

A As a Technical Services Consultant in the Customer Services Division, I am responsible for managing the Continuing Education programs and other activities related to the Demand Side Management goals. In addition, I support the Key Account Managers in providing energy audits and other technical services for commercial and industrial customers. I also provide technical assistance to Economic Development, New Technologies and the residential auditors.

Q Please state your professional experience and educational background.

A I received a Bachelors of Science degree in Mechanical Engineering from the Virginia Tech, Blacksburg, Virginia, and a Master of Business Administration

(MBA) from the University of Tennessee-Knoxville. I am a licensed Professional Engineer and have a certified class A Air Conditioning contractors license, both in the State of Florida.

I joined the HVAC industry in 1970 and have been involved in many facets – marketing, wholesaling, design, construction, maintenance, and consulting. I spent 8 years as an air conditioning contractor, specializing in commercial buildings and institutional structures, designed and installed by my firm. I am professionally affiliated with the American Society of Heating Refrigerating and Air Conditioning Engineers (ASHRAE) and the Northeast Florida Builders Association (NEFBA).

Q Please describe the overall process leading to the determination of the proposed numeric conservation goals for JEA?

A Six major steps were taken to determine the proposed numeric conservation goals for JEA. First, DSM measures with the highest potential of being cost-effective were chosen. Second, the avoided cost must be established. Third, the selected measures were analyzed against the avoided costs in cost-effective analyses. Fourth, results of the analyses are analyzed. Fifth, the proposed numeric goals were set based on the results of the analyses. Sixth, program implementation processes were developed for the programs that JEA proposes.

Q What is the purpose of your testimony in this proceeding?

A The purpose of my testimony is to address steps four, five, and six. In my testimony, I will discuss the results of the cost-effectiveness analysis, the numeric

goals proposed by JEA and the implementation of the demand side programs. I will also discuss existing programs at JEA and programs that have been discontinued. Potential future programs will be also discussed.

Q Were Sections of the JEA's 2000 Demand Side Management Plan (Exhibit JEA-1) prepared by you or under your direct supervision?

A Yes. JEA's 2000 Demand-Side Management Plan was prepared by Black & Veatch under my direct supervision.

Q Are you adopting any of the Sections of JEA's 2000 Demand Side Management Plan as part of your testimony?

A Yes, I am adopting Section 6.0.

Q Are there any corrections to this Section?

A No.

Q Have you prepared any exhibits?

A Yes. I have prepared Exhibit JHA-1 which is incorporated as part of my testimony.

Q Please describe how the results of the cost-effectiveness evaluation for the DSM measures were analyzed.

A In general, JEA uses the Rate Impact Test as its primary criterion for determining cost-effectiveness for DSM programs. In other words, JEA will not implement DSM programs that cause rates to increase unless there are significant other

considerations such as customer education.

The Rate Impact Test is a measure of the expected impact on customer rates resulting from a DSM program. The test statistic is the ratio of the utility's benefits (avoided supply costs and increased revenues) compared to the utility's costs (program costs, incentives paid, increased supply costs and revenue losses). A value of less than one indicates an upward pressure on rate levels as a result of the DSM program.

Q Please describe the results of the cost-effectiveness evaluation.

A Eight residential and three commercial measures were analyzed for cost-effectiveness. None of the measures passed the Rate Impact Test.

Q Please describe the development of JEA's proposed numeric goals for the years 2001 – 2010.

Since none of the measures passed the Rate Impact Test, JEA's proposed numeric goals are zero for demand and energy.

The numeric goals are shown in Exhibit JHA - 1.

Q Are these goals feasible for JEA?

A Yes. JEA expects to surpass these goals.

Q Please describe the measures tested from JEA's 1995 DSM Plan and JEA's 1998 DSM Annual Report.

A Eight residential measures and two commercial measures were tested. I will give a brief overview of each measure, residential measures first.

'Constructing an Energy Efficient New Home for Professionals' is a seminar targeting engineers, architects, building inspectors, building managers and all associated professionals involved in the construction and development of new homes. The seminar focuses on energy efficiency and conservation through site selection, design, thermal and mechanical systems, construction details, energy code requirements, heating and air conditioning equipment, duct sizing and landscaping. This program is highly attended because continuing education credit is offered for seminar attendance.

'Constructing an Energy Efficient New Home for Home Owners' is a seminar targeting homeowners. The seminar focuses on energy efficiency and conservation. This program will be continued and highly emphasized.

'Contractors Duct Education Program' addresses the impacts of duct leakage, repair, prevention methods, and legal requirements for all new residential buildings in Florida. A commercial alternative has been developed for this course for non-residential buildings.

'Low Income Residential Audit, Jacksonville Housing Partnership (JHP)' is a low-income audit performed by the local weatherization agency, JHP. During this audit a conservation measure is installed or performed consistent with a priority list of measures established by JEA.

'Low Income Residential Audit, Jacksonville Housing Authority (JHA)' focuses on altering wasteful occupant behavior through education. JEA personnel enter dwellings supervised by the local public housing agency and perform low-income audits.

'High Efficiency Pool Pump' program promotes the replacement of pool pumps with high efficiency units at the time of pump failure. High efficiency pool pumps were supposed to be available to JEA customers with a ten-dollar discount. JEA was not successful in obtaining the participation of a pump distributor. Therefore, this program is not proposed in JEA's 2000 Demand-Side Management Plan.

'Remove Second Freezer' and 'Remove Second Refrigerator' promotes the removal of additional unnecessary refrigeration and freezing appliances. The program is targeted to reduce net energy for load. This program has not been successful and is not proposed in JEA's 2000 Demand-Side Management Plan.

'Air Distribution Education Seminar' promotes proper airflow through commercial buildings. Uncontrolled airflow exists when air is forced across the building envelope through building components in a manner never intended by designers. Improper airflow can cause immense building repair costs.

'Commercial Energy Efficient Lighting' strives to promote energy savings and power quality improvements through retrofitting. This program loans thirty

dollars for each fixture replaced at a low interest rate for three years. The program allows the customer to repay the loan through monthly bills. This program has not been successful and is not proposed in JEA's 2000 Demand-Side Management Plan.

Q Did you test any additional measures.

A Yes, we tested Florida Power & Light's (FPL) most cost-effective measure. The measure was found not cost-effective for JEA. We in essence screened and eliminated all measures screened by FPL.

Q Will any of the above programs be continued or implemented.

A JEA proposes to continue selected programs discussed above. The residential programs that will be continued include the educational seminars and the low-income energy audits. The commercial / industrial educational seminars and audits will also be continued. JEA is choosing to continue the programs because of their educational nature, the high level of customer participation, and the potential positive effects on the community.

Q Does this conclude your testimony?

A Yes.

BEFORE THE PUBLIC SERVICE COMMISSION

JEA

TESTIMONY OF MYRON R. ROLLINS

DOCKET NO. 990720-EG

NOVEMBER 15, 1999

Q Please state your name and address.

A My name is Myron R. Rollins. My business address is 11401 Lamar, Overland Park, Kansas 66211.

Q By whom are you employed and in what capacity?

A I am employed by Black & Veatch as a Project Manager in the Energy Services Group of the Power Division.

Q Please describe your responsibilities in that position.

A As a Project Manager in the Energy Services Group, I am responsible for managing various projects for utility and non-utility clients. These projects encompass a wide variety of services for the power industry. The services include load forecasts, conservation and demand-side management, reliability criteria and evaluation, development of generating unit addition alternatives, fuel forecasts, screening evaluation, production cost simulation, optimal generation expansion modeling, economic and financial evaluation, sensitivity analysis, risk analysis, power purchase and sales evaluation, strategic considerations, analyses of the effects of the 1990 Clean Air Act Amendments, feasibility studies, qualifying facility and independent power producer evaluations, power market studies and

power plant financing.

Q Please state your professional experience and educational background.

A. I received a Bachelors of Science degree in Electrical Engineering from the University of Missouri – Columbia. I also have two years of graduate study in nuclear engineering at the University of Missouri – Columbia. I am a licensed professional engineer and a Senior Member of the Institute of Electrical and Electronic Engineers.

I have been employed by Black & Veatch since 1976 in the Power Sector Advisory Services area. In the last ten years, I have been the project manager for over 100 projects. I have conducted a majority of my work for Florida utilities. Florida utilities for which I have worked include City of Lakeland-Department of Electric Utilities, Kissimmee Utility Authority, Florida Municipal Power Agency, Orlando Utilities Commission, JEA, City of St. Cloud, Utilities Commission of New Smyrna Beach, Sebring Utilities Commission, City of Homestead, Florida Power Corporation and Seminole Electric Cooperative.

I attempt to stay abreast of Florida Public Service Commission (PSC) proceedings. For instance, I was the Project Manager for projects that prepared or provided input to the preparation of 1999 Ten Year Site Plans for Kissimmee Utility Authority, City of Lakeland, Orlando Utilities Commission and JEA. I have previously presented testimony before the PSC for the Stanton 1 & 2 and AES-Cedar Bay need for power certification and had my testimony stipulated for Kissimmee Utility Authority and Florida Municipal Power Agency's Cane Island

Unit 3 need for power certification and The City of Lakeland's McIntosh Unit 5 need for power certification. I have also participated in the preparation of testimony for the Seminole Electric's Hardee County Combined Cycle Project, the Cypress Project and the Hines Energy Center Project need for power certifications.

Q Please describe the overall process leading to the determination of the proposed numeric conservation goals for JEA?

A Six major steps were taken to determine the proposed numeric conservation goals for JEA. First, DSM measures with the highest potential of being cost-effective were chosen. Second, the avoided cost was established. Third, the selected DSM measures were cost-effectively analyzed against the avoided costs. Fourth, the results were analyzed. Fifth, the proposed numeric goals were set based on the results of the analyses. Sixth, program implementation processes were developed.

Q What is the purpose of your testimony in this proceeding?

A The purpose of my testimony is to address steps one through five. In my testimony, I will discuss the selection of the measures to be tested, the determination of the avoided costs, and methodology used to evaluate the cost-effectiveness of these goals. I will also discuss economic assumptions used in the evaluations as well as the fuel price projections used. I will show that JEA has adequately explored demand side programs and is proposing appropriate goals.

Q Was the JEA 2000 Demand Side Management Plan (Exhibit JEA-1)

prepared by you or under your direct supervision?

A Yes.

Q Are you adopting these Sections as part of your testimony?

A Yes, I am adopting sections 1.0 through 6.0 and Appendices A and B as part of my testimony.

Q Are there any corrections to these Sections?

A No.

Q Please describe the evaluation process by which JEA determined the demand side management measures for cost effectiveness analysis.

A In order to reduce the cost of complying with this docket, JEA did not model each possible DSM measure. Rather, JEA's study focused on alternatives that are expected to have the highest potential in Florida for being cost-effective. The measures were taken from JEA's 1995 Demand Side Management Plan, JEA's 1998 Demand Side Management Plan Annual Report, and the recent results of Florida Power & Light's (FPL) cost-effective analysis of demand side measures associated with FPL's 1999 goals. These measures were compiled and used in a cost-effectiveness analysis versus JEA's avoided unit costs.

Q Please describe how the avoided costs were determined.

A Avoided costs are determined by selecting an avoided unit. The avoided unit is the unit that could potentially be avoided or delayed due to the implementation of DSM programs.

The selection of the avoided unit is based on the next planned unit for JEA for which construction has not yet begun. Based on JEA's 1999 Ten Year Site Plan, the next avoidable unit is the 2004 steam turbine that will be added when two combustion turbines are converted to combined cycle at Brandy Branch.

For purposes of determining the cost and performance of the avoided unit, the entire cost and performance of the converted combined cycle is considered. This represents a very conservative assumption for the avoided unit. In other words, the true avoided unit costs are less. For instance the true avoided capital costs would only be the incremental capital costs required to convert the existing combustion turbines to combined cycle. Using the higher capital cost for the entire combined cycle unit in the cost effectiveness calculations results in the conservation measures being evaluated as being more cost effective than they actually are.

Q What type of financing has been assumed to be used for the installation of the avoided unit?

A The avoided unit is assumed to be financed with 100% debt. Because JEA is a municipal utility, it can issue low cost tax-free municipal bonds. This allows the installed cost of a new unit to be extremely cost effective and cost competitive.

Q Please describe the evaluation process by which potential DSM programs were evaluated?

A The process used to evaluate the cost-effectiveness of DSM programs conforms to that required in Rule 25-17.008, Fla. Admin. Code. Specifically, the

procedures used are those set forth in the Florida Public Service Commission Cost-effectiveness Manual for Demand Side Management Programs and Self Service Wheeling Proposals. The Florida Integrated Resource Evaluator (FIRE) spreadsheet, originally developed by Florida Power Corporation, was used to assess the potential effectiveness of DSM programs.

Using the procedures specified in Rule 25-17.008 Fla. Admin. Code, FIRE provides a systematic framework for identifying the benefits and costs associated with specific DSM programs. Avoided utility costs are economically evaluated against DSM costs and load impacts to assess the effectiveness of the program over its useful life. Three DSM program benefits / cost tests are produced by the FIRE model and are used in considering DSM cost-effectiveness. These tests are the Rate Impact Test (RIM), the Total Resource Cost Test (TRC) and the Participants Test. The results of the three cost-effectiveness tests for the DSM programs evaluated are shown in Table 5-1 of JEA's 2000 Demand Side Management Plan.

Q What economic parameters were assumed as inputs for the FIRE Model?

A The economic parameters assumed represent a consistent set of economic parameters from JEA's 1999 Ten Year Site Plan. A general inflation rate of 2.3 percent was used. JEA uses a forecast of the Gross Domestic Product Implicit Price Deflator as a base measure of general inflation to derive relative escalation rates for use in conservation planning and analyses. This rate also applies to capital costs and O&M costs. An escalation rate of 2.6 percent was used for the escalation of fuel prices based on JEA's fuel cost projections for natural gas

contained in JEA's 1999 Ten Year Site Plan. A long-term bond interest rate of 5.5 percent was assumed and the same interest rate was assumed for interest during construction. These were both selected to be consistent with a 2.3 percent general inflation rate. A fixed charge rate of 8.78 percent was developed based on the 5.5 percent bond interest rate and applied to the capital cost for a new unit addition in the evaluations.

Q What fuel forecasts were developed or used for the FIRE Model evaluations?

A Fuel forecasts were developed for the delivered price of natural gas. Fuel was escalated at a rate of 2.6 percent to make the fuel price consistent with the economic assumptions in the evaluations. The base case fuel price projection in Appendix A of JEA's 2000 Demand Side Management Plan is the same as presented in JEA's 1999 Ten Year Site Plan.

Q Are the fuel price projections developed reasonable for use in evaluating different generating unit alternatives?

A Yes. The fuel price projections are consistent with current fuel prices for existing units at JEA and are reasonable to use to evaluate the avoided unit.

Q Please describe the three DSM tests used to evaluate DSM programs.

A All the DSM cost effectiveness tests are based on the comparison of discounted present worth benefits to costs for a specific DSM program. Each test is designed to measure costs and benefits from a different perspective.

The Rate Impact Test is a measure of the expected impact on customer rates

resulting from a DSM program. The test statistic is the ratio of the utility's benefits (avoided supply costs and increased revenues) compared to the utility's costs (program costs, incentives paid, increased supply costs and revenue losses). A value of less than one indicates an upward pressure on rate levels as a result of the DSM program.

The Total Resources Cost Test measures the benefit / cost ratio by comparing the total program benefits (both the participant's and utility's) to the total program costs (equipment costs, supply costs, participant costs).

The Participants Test measures the impact of the DSM program on the participating customer. Benefits to the participant may include bill reductions, incentives paid, and tax credits. Participants' costs may include equipment costs, operation and maintenance expenses, equipment removal, etc.

Q Which cost-effectiveness test was utilized by JEA in evaluating DSM measures?

A All three cost effectiveness tests were calculated for each DSM measure analyzed and considered in our evaluation. The Rate Impact Test serves as the primary test for JEA in determining the cost effectiveness of DSM measures. In other words, JEA does not in general support DSM programs that increase rates.

Q Please describe the selection of DSM measures for evaluation.

A A total of 8 residential and 3 commercial potential DSM measures was evaluated to assess cost-effectiveness. The measures were selected to ensure that all

potentially cost-effective programs were evaluated. The measures were selected from three areas of potentially cost effective measures. First, the cost-effective measures from JEA's 1995 Goals were selected. Second, measures from JEA's current DSM programs were selected. Third, the most cost-effective measure, based on the Rate Impact Test, from FPL's 1999 Goals was selected. This selection process was used in order to reduce the number of measures evaluated in the FIRE model and thus the cost of complying with this docket. This process saved evaluating numerous measures only to find that they were not cost effective. In selecting the most cost-effective measure evaluated by FPL, it was reasoned that if the most cost effective FPL measure evaluated was not cost effective, then none of the hundreds of measures that were evaluated by FPL would be cost effective.

Q Please describe the results of the analysis undertaken to evaluate the cost effectiveness of potential DSM measures.

A None of the measures evaluated was cost effective based on the Rate Impact Test.

Q Does it surprise you that no DSM measures proved to be cost effective for JEA?

A No. I didn't expect any DSM measures to be cost effective for JEA.

Q Why did you not expect any DSM measures to be cost effective?

A I had recently evaluated dozens of DSM measures for similarly situated municipal utilities as part of the Need for Power Dockets for Cane Island Unit 3 and the combined cycle conversion of McIntosh 5. None of the measures evaluated was

cost effective.

Q Why is it so much more difficult for DSM to be cost effective today than it was in 1995?

A A number of things have changed to make DSM less cost effective. For one, appliances are more efficient and building codes and practices result in more efficient buildings. The cost of building power plants has decreased and the efficiency of power plants has increased. In addition, fuel costs have decreased along with the projected cost of fuel. These, along with other factors, result in DSM being less cost effective.

Q Why do the investor owned utilities indicate that some DSM measures are cost effective while municipal utilities do not?

A The main reason is that municipal utilities are able to use tax exempt bonds for financing the avoided unit. Thus the cost of financing is much less for municipal utilities than it is for investor owned utilities.

Q Does this conclude your testimony?

A Yes.

CHAIRMAN GARCIA: Mr. Goad, is it a long recommendation?

MR. GOAD: No, sir.

CHAIRMAN GARCIA: Then go ahead and make it for this docket.

MR. GOAD: Okay. Staff has reviewed JEA's analysis and accepts that there are no cost-effective conservation programs available to JEA. As such, staff recommends that JEA's conservation goals for the period 2001 through 2010 be set at zero.

Staff also recommends that while no conservation goal levels should be set, that JEA be free to exercise and offer conservation programs that they find in the best interest of their citizens.

CHAIRMAN GARCIA: All right.

COMMISSIONER CLARK: I move we approve staff's recommendation.

COMMISSIONER DEASON: Just so that we are clear, we are not setting a numeric goal. But obviously JEA is free to engage in conservation activities to the extent that they deem advisable and prudent?

MR. GOAD: Yes, sir.

COMMISSIONER DEASON: I can second the motion.

CHAIRMAN GARCIA: All right. There being a motion and second, and there being no objection, show that

approved.

(The hearing concluded at 9:45 a.m.)

STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, FPSC Bureau of Reporting, Official Commission Reporter, do hereby certify that the hearing in Docket No. 990720-EG was heard by the Florida Public Service Commission at the time and place herein stated.

It is further certified that I stenographically reported the said proceedings; that the same has been transcribed by me; and that this transcript consisting of 25 pages, constitutes a true transcription of my notes of said proceedings and the insertion of the prescribed prefiled testimony of the witnesses.

DATED this 23rd day of February, 2000.

JANE FAUROT, RPR
FPSC Division of Records & Reporting
Chief, Bureau of Reporting

JEA
Docket No. 990720-EG
Exhibit No.___JEA-1

2000 Demand-Side Management Plan

Building Community

Docket No. 990720-EG
November 15, 1999

Table of Contents

List of Tables

Executive Summary

In accordance with Rules 25-17.0021- .005, Florida Administrative Code, the Florida Public Service Commission (PSC) must establish numeric conservation goals for JEA. JEA is submitting proposed numeric conservation goals and the associated demand-side management (DSM) plan to the PSC for approval. The development of the goals and conservation plan required thorough analysis and multiple steps.

First, potential DSM measures were compiled. In order to reduce cost, JEA did not evaluate each possible measure. Instead JEA focused on measures that had the highest potential for being cost-effective.

Inputs and assumptions were developed for the potential DSM measures as well as for the economic parameters and the avoided supply side unit. This data was input to a PSC approved model to evaluate the cost-effectiveness of the measures. Results were determined by running three tests. The three tests run were the Rate Impact Test, the Total Resource Test, and the Participants Test.

JEA requires all measures to pass the Rate Impact Test to be considered cost-effective. From these results, numerical goals were developed for the ten-year period 2001 – 2010.

Of the potential DSM measures tested, none passed the Rate Impact Test. Since every measure failed the cost-effectiveness testing, the proposed numeric goals for residential and commercial and industrial are zero.

Recent Need for Power Dockets for Kissimmee Utility Authority (KUA) and Florida Municipal Power Agency (FMPA) for Cane Island Unit 3 (Docket No. 980802) and the City of Lakeland conversion of McIntosh Unit 5 to combined cycle (Docket No. 990023) evaluated dozens of DSM measures for similarly situated municipal utilities and also found no DSM measures were cost-effective.

Many things have changed since JEA's 1995 goals which tend to decrease the cost-effectiveness of DSM. The efficiency of new generation has increased. The cost of installing new generation has decreased. Fuel costs and fuel cost projections have decreased. Interest rates have fallen. All of these things have resulted in it becoming more difficult for DSM measures to be cost effective.

Because JEA views energy efficiency so importantly, JEA proposes to continue existing programs that have shown high participation and customer demand. Programs

proposed for continuation are educational programs and energy audits. The programs are focused on educating the customer about energy efficiency and conservation.

JEA will continue to consider a broad range of residential, commercial and industrial measures to assist JEA customers in the reduction of energy and demand and will continue to monitor the cost-effectiveness and value of the measures.

1.0 Introduction

In accordance with Rules 25-17.0021- .005, Florida Administrative Code, the Florida Public Service Commission (PSC) must establish numeric conservation goals for JEA. Each utility subject to the rule is required to propose numerical goal projections for the ten-year period 2001-2010. The PSC has initiated Docket 990720 – EG to implement the requirements of Rule 25-17.0021 - .005 for JEA. In response to this Docket, JEA is submitting proposed numeric conservation goals and the associated demand-side management (DSM) plan to the PSC for approval in this report.

In order to reduce cost, JEA did not model each possible DSM measure. JEA's study focused on alternatives that are expected to have the highest potential for being cost-effective. The DSM measures analyzed were compiled from programs deemed cost-effective in JEA's 1995 Demand Side Management Plan, existing JEA measures, and the most cost-effective measure evaluated by Florida's largest investor owned utility, Florida Power & Light.

By testing the most cost-effective measure from FPL, the assumption was made that if the most cost-effective measure for FPL did not prove cost-effective, then FPL's lesser cost-effective measures would also fail the analysis. Using this methodology, JEA has effectively screened all of FPL's measures.

Each potential measure was evaluated using the PSC approved Florida Integrated Resource Evaluator (FIRE) model providing the Rate Impact Test, the Total Resources Test, and the Participant Test. The model evaluates the economic impact of existing and proposed conservation measures by determining the relative cost-effectiveness of the measures versus the avoided unit. Based on the cost-effectiveness analysis, JEA proposed conservation goals and a corresponding demand-side management plan.

This report contains seven sections. The next section presents the overall methodology used to develop the proposed numeric goals and supporting demand side management plan. The third section describes all inputs and assumptions associated with the potential DSM measures, avoided supply side generation and economic parameters. The fourth section describes the methodology and explanation of the results for the cost-effectiveness testing and analysis. The fifth section discusses the numerical results of the analysis. The sixth section describes the development of the proposed numerical

conservation goals. The seventh section describes JEA's proposed demand side management plan.

2.0 Methodology

Several steps were involved in the development of numeric conservation goals and the associated demand-side management plan.

First, potential DSM measures for cost-effective analysis were selected. In order to reduce cost, the measures were chosen carefully. JEA did not model each possible DSM measure. Instead, JEA's study focused on alternatives that were expected to have the highest potential for being cost-effective. The DSM measures analyzed were compiled from programs deemed cost-effective in JEA's 1995 Demand-Side Management Plan, existing JEA programs, and most cost-effective measure that were found to be cost-effective by Florida's largest investor owned utility, Florida Power & Light. The potential DSM measures evaluated are listed in Table 3-1.

Second, each potential measure was evaluated for its cost-effectiveness. Measures were evaluated using the PSC approved Florida Integrated Resource Evaluator (FIRE) model which provides output in the form of the Rate Impact Test, the Total Resources Test, and the Participant Test. The model evaluates the economic impact of existing and proposed conservation measures by determining the relative cost effectiveness of the measures versus an avoided supply side resource. The avoided unit is the next unit planned for installation for the utility. FIRE Model methodology is discussed in Section 4.0. Avoided unit assumptions are discussed in Section 3.3.

Third, based on the cost-effectiveness analysis, numeric conservation goals were developed. The numeric goals were calculated based on the demand and energy saved by the cost-effective measures. The results of the cost-effective analysis are listed in Table 5-1. The proposed numeric goals are listed in Table 6-1.

Fourth, based on the proposed numeric goals, JEA developed a corresponding conservation plan. The proposed DSM plan defines how JEA will meet its proposed numeric goals. The proposed DSM plan is described in Section 7.0.

3.0 Assumptions and Inputs for Cost-Effective Analysis

3.1 Demand-Side Management Measures

The DSM measures tested were taken from three sources: JEA existing DSM measures, measures proposed in JEA's 1995 DSM Plan, and the most cost-effective measure from Florida Power & Light's (FPL) 1999 goals. Each measure and its original source are listed in Table 3-1.

Basic assumptions were made in the development of input data for the measures. The sources for assumptions applying to all measures are shown in Table 3-2.

Table 3-2
Source for Data Input Assumptions for DSM Measures

- Study Period for economic evaluation set to 20 years.
- Fuel Forecast and economic parameters were taken from JEA's 1999 Ten Year Site Plan.
- Utility average system fuel cost for 1999 was taken from Resource Data International Inc.
- Non-fuel cost in residential customer bill for 1999 based on monthly Typical Electric Bill Tabulation for 1,000 kWh users (Florida Municipal Electric Association Inc.).
- Non-fuel cost in commercial customer bill for 1999 based on monthly Typical Electric Bill Tabulation for 30 kW – 6,000 kWh users (Florida Municipal Electric Association Inc.).
- Customer Demand Charge for 1999 based on JEA's rate schedule for General Service Demand between 49 kW and 75 kW.
- Transmission Fixed O&M costs were taken from FPL's 1999 goals.
- Distribution Capital Costs were taken from FPL's 1999 goals.
- Distribution Fixed O&M costs were taken from FPL's 1999 goals.

Input data for these measures was compiled from JEA's 1995 DSM Plan, JEA's 1999 Ten Year Site Plan, JEA's DSM Plan - 1998 Annual Report, FPL's testimony (Docket 971004-EG) and FPL's supplemental responses for FPL's 1999 Ten Year Site Plan. The number of participants for the FPL measure was developed by the ratio between JEA's and FPL's customers. The input data used in the FIRE Model is shown in Appendix B.

Table 3-1
DSM Measures

DSM Measure Abbr.	DSM Measures	Program Source
	Residential	
NewHoP	Contractor, Building Inspector and Architect Continuing Education - Residential: *Constructing an Energy Efficient New Home – Professionals*	JEA 1995 Demand Side Management Plan & 1998 Annual Report
NewHoO	Contractor, Building Inspector and Architect Continuing Education - Residential: *Constructing an Energy Efficient New Home - Home Owners*	JEA 1995 Demand Side Management Plan & 1998 Annual Report
Rduct	Contractor, Building Inspector and Architect Continuing Education - Residential: *Contractors Duct Education Program*	JEA 1995 Demand Side Management Plan & 1998 Annual Report
HEPP	Appliance Efficiency Education: *High Efficiency Pool Pump*	JEA 1995 Demand Side Management Plan & 1998 Annual Report
RRefri	Appliance Efficiency Education: *Remove Second Refrigerator*	JEA 1995 Demand Side Management Plan & 1998 Annual Report
RFreezer	Appliance Efficiency Education: *Remove Second Freezer*	JEA 1995 Demand Side Management Plan & 1998 Annual Report
JHP	Energy Audits: *Low-Income Residential Audit - Jacksonville Housing Partnership*	JEA 1995 Demand Side Management Plan & 1998 Annual Report
JHA	Energy Audits: *Low-Income Residential Audit - Jacksonville Housing Authority*	JEA 1995 Demand Side Management Plan & 1998 Annual Report
	Commercial/Industrial	
ADS	Contractor, Building Inspector and Architect Continuing Education - Commercial: *Uncontrolled Airflow in Non-Residential Buildings*	JEA 1995 Demand Side Management Plan & 1998 Annual Report
CCEL	Commercial Energy Efficient Lighting	JEA 1995 Demand Side Management Plan & 1998 Annual Report
OPBC	Off Peak Battery Charging – FPL	FPL Docket No. 971004-EG & FPL Supplemental Data Request for FPL 1999 Ten-Year Site Plan

3.2 Economic Parameters

The economic parameters used in the evaluation were obtained from JEA's 1999 Ten Year Site Plan and are presented in the following subsections.

3.2.1 Inflation and Escalation Rates

The general inflation rate is 2.3 percent annually. JEA uses a forecast of the Gross Domestic Product (GDP) Deflator as a base measure of general inflation to derive relative escalation rates for use in planning and analyses. The 2.3 percent annual escalation rate is applicable to capital costs and operation and maintenance (O&M) expenses.

3.2.2 Present Worth Discount Rate

The present worth discount rate applied in the study is consistent with the general escalation rate discussed above of 2.3 percent.

3.2.3 JEA Municipal Bond Interest Rate

The long-term municipal bond interest rate is assumed to be 5.5 percent. This rate is based on the current bond rate for JEA.

3.2.4 Interest During Construction Interest Rate

The interest during construction interest rate for JEA is assumed to be equal to the bond rate of 5.5 percent.

3.2.5 Fixed Charge Rate

Based upon a 2.0 percent issuance fee,1.0 percent annual insurance cost, a bond interest rate of 5.5 percent, and a bond term of 25 years, the annual fixed charge rate is 8.78 percent.

3.3 Avoided Unit

3.3.1 Generation

JEA's expansion plans consist of a number of unit additions as presented in JEA's 1999 Ten-Year Site Plan. The unit additions include the addition of a combustion turbine at Kennedy in May of 2000, two combustion turbines at Brandy Branch in January of 2001, the addition of a third combustion turbine at Brandy Branch in December of 2001, the repowering of Northside 1 and 2 in April of 2002, and the conversion of two of the Brandy Branch combustion turbines into combined cycle in June of 2005. The Kennedy and Brandy Branch combustion turbines and the Northside 1 and 2 repowering are under construction and considered committed alternatives. Thus the conversion of two of the Brandy Branch combustion turbines is considered JEA's avoided unit. The conversion of

simple cycle combustion turbines to combined cycle as an avoided unit presents an interesting quandary with respect to the cost and performance of the avoided unit. JEA has taken a very conservative approach by including the entire cost for the combined cycle as the avoided unit capital cost and O&M costs. Obviously the true avoided capital cost is only the capital cost associated with the conversion. The estimated capital cost for the entire combined cycle and its projected performance is presented in Table 3-3.

Table 3-3
Generating Unit Characteristics
For Avoided Unit

Item	General Electric 7FA 2 x 1 Combined Cycle
Total Capital Cost, 2001 $1,000 (1)	$ 194,720
O&M Cost-Baseload Duty	
Fixed O&M Cost, 2001 $/kW-y	4.94
Variable O&M Cost, 2001 $/MWh	1.92
Economic Life	25
Net Plant Capacity (MW) @ ISO	529
Net Heat Rate @ ISO (LHV)	6,040
Equivalent Availability, percent	92.5
Equivalent Forced Outage Rate, percent	4.2
Planned Maintenance Outage, weeks/y	3
Construction Period, months	24

(1) Does not include interest during construction.

3.3.2 *Transmission*

The avoided transmission cost is assumed to be the cost of the transmission line from Brandy Branch to Duval Substation required as a result of the conversion of two of the Brandy Branch combustion turbines to combined cycle. The estimated capital cost for the transmission line is $ 3,560,658.

4.0 Cost-Effective Analysis

Each potential measure was evaluated for its cost-effectiveness. Measures were evaluated using the PSC approved Florida Integrated Resource Evaluator (FIRE) model which provides output in the form of the Rate Impact Test, the Total Resources Test, and the Participant Test. The model evaluates the economic impact of existing and proposed conservation programs by determining the relative cost-effectiveness of the programs versus the avoided supply side resource. The avoided unit is the next unit planned for installation for the utility. Based on the cost-effectiveness analysis, numeric conservation goals are developed.

4.1 FIRE Model Methodology

In order to evaluate the cost-effectiveness of all existing and potential DSM measures in the reporting format specified by the PSC, the Florida Integrated Resource Evaluator (FIRE) model was used. The FIRE model was designed by Florida Power Corporation and is used by several utilities in Florida. The model evaluates the economic impact of existing and proposed conservation measures by determining the cost-effectiveness of the measures versus the avoided unit. Assumptions inherent in the FIRE Model are listed in Table 4-1.

The FIRE Model was designed to evaluate a wide variety of DSM measures. The model uses avoided unit costs, DSM measure costs, operations and maintenance costs, rebates/incentives, and other input variables to calculate the incremental benefits of a DSM measure. These incremental costs are used to perform three cost-effectiveness tests: the Rate Impact Test, the Total Resources Test, and the Participant Test.

4.2 FIRE Model Output

FIRE Model results are output in the form of three cost-effectiveness tests. All the DSM cost-effectiveness tests are based on the comparison of discounted present worth benefits to costs for a specific DSM measure. Each test is designed to measure costs and benefits from a different perspective.

The Rate Impact Test is a measure of the expected impact on customer rates resulting from a DSM program. The test statistic is the ratio of the utility's benefits (avoided supply costs and increased revenues) compared to the utility's costs (program

costs, incentives paid, increased supply costs and revenue losses). A value of less than one indicates an upward pressure on rate levels as a result of the DSM program.

The Total Resources Cost Test measures the benefit / cost ratio by comparing the total program benefits (both the participant's and utility's) to the total program costs (equipment costs, supply costs, participant costs).

The Participants Test measures the impact of the DSM program on the participating customer. Benefits to the participant may include bill reductions, incentives paid, and tax credits. Participants' costs may include equipment costs, operation and maintenance expenses, equipment removal, etc. The Participants' Test is important because customers will not participate if the program is not beneficial to them.

All three cost–effectiveness tests were calculated for each DSM programs analyzed and considered in our evaluation. JEA views the Rate Impact test as the primary test for determining the cost-effectiveness for DSM measures for its system.

Table 4-1
FIRE Model Assumptions

- System demand is growing. Demand reductions due to DSM will result in reduced need for system expansion.
- Individual demand reductions can be related to reduced need for system generation expansion.
- The generation reduction will be evaluated with respect to specified generation.
- Decreases or increases in revenue due to demand side programs will impact rate levels and will be passed on to all customers.
- Additional conservation taking place after the next deferred generating unit will affect subsequent units.

5.0 Cost-Effective Analysis Results

5.1 Numerical Results

The numerical results from the FIRE Model analysis are listed below in Table 5-1. Descriptions of the measures are listed in Table 3-1 of Section 3.

Table 5-1
FIRE Model Results

Abbr.	DSM Measure	Cost-Effectiveness Test Rating		
		Rate Impact	Total Resource Cost	Participant Costs
	Residential			
NewHoP	Constructing an Energy Efficient New Home – Professionals	0.99	0.34	0.34
NewHoO	Constructing an Energy Efficient New Home - Home Owners	0.91	0.35	0.36
Rduct	Contractors Duct Education Program	0.69	0.75	1.13
HEPP	High Efficiency Pool Pump	0.35	0.78	2.56
RRefri	Remove Second Refrigerator	0.34	26.90	1.00
RFreezer	Remove Second Freezer	0.34	25.03	1.00
JHP	Low-Income Residential Audit - Jacksonville Housing Partnership	0.43	14.19	1.00
JHA	Low-Income Residential Audit - Jacksonville Housing Authority	0.44	13.75	1.00
	Commercial/Industrial			
ADS	Uncontrolled Airflow in Non-Residential Buildings	0.41	0.88	2.24
CCEL	Commercial Energy Efficient Lighting	0.61	9.39	27.08
OPBC	Off Peak Battery Charging – FPL	0.48	1.42	0.67

5.2 Analysis of Results

Although every DSM measure failed the Rate Impact Test, JEA proposes the continuation of select conservation measures. JEA views energy conservation as an important service to JEA customers and the community. By continuing conservation

programs, JEA maintains interaction with customers and is better able to determine the needs of JEA's customers and the community.

JEA proposes to continue the following residential, commercial/industrial and community conservation programs and measures:

Residential:

Contractor, Building Inspector and Architect Continuing Education

Energy Audits

Commercial/Industrial:

Contractor, Building Inspector and Architect Continuing Education

Energy Audits

Community Conservation Programs:

Street Light Efficiency Program

Community Information / Energy Education

Tree Power Program

Each of the proposed programs is described in detail in Section 7.0.

6.0 Proposed Numeric Conservation Goals

The proposed numeric conservation goals for JEA are based on the FIRE Model results for the Rate Impact test. No residential, commercial or industrial measures were found cost-effective for JEA customers. JEA's numeric proposed conservation goals are shown in Table 6-1.

Table 6-1
Proposed Numeric Conservation Goals

	Residential Reduction			Commercial/Industrial Reduction		
Year	Summer kW	Winter kW	MWh	Summer kW	Winter kW	MWh
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0

Although no DSM measures passed the Rate Impact Test to qualify as cost-effective measures, JEA proposes the continuation of JEA's existing educational courses and energy auditing programs. The programs are described in Section 7.0.

7.0 Proposed Demand Side Management Plan

Although no DSM measures passed the Rate Impact Test to qualify as cost-effective measures, JEA proposes the continuation of JEA's existing educational courses and energy auditing measures. Because of the difficulty of measuring kW and kWh savings for educational seminars, JEA proposes setting conservation goals for these programs based on the anticipated number of customers attending the seminars and courses. Tables 7-1 and 7-2 show the expected number of participants for each program. This section contains a description of each of the programs.

7.1 Residential Programs

7.1.1 Contractor, Building Inspector and Architect Continuing Education

7.1.1.1 Program Description. This program provides education and training to building contractors, architects, building inspectors and homeowners to encourage energy conservation. The classes are approved continuing education courses for the contractors and inspectors licensed by the Construction Industry Licensing Board (CILB). The Board of Architecture and Interior Design has approved these courses as continuing education for architects. The courses are listed and described below.

"Constructing an Energy Efficient Home" - This class addresses all aspects of constructing an energy efficient home, including site inspection, design principles, thermal and mechanical systems, construction details, energy code requirements, heating and air conditioning equipment, duct sizing and landscaping. Economic assessments are made of all energy features commonly offered by builders. This class is being offered four to five times per year at the JEA training auditorium, with 40 to 90 attendees per session.

"Improving Energy Efficiency and Indoor Air Quality in Homes" - This course teaches a system strategy for enhancing energy efficiency and indoor air quality, as well as the cost of implementing the techniques discussed. A review of such elements as drainage, filtration and return air ducts is included. This seminar is presented annually to 15 to 25 students at the JEA Training Center.

JEA is considering the continuation of "Load and Duct Sizing Calculations: Computer Solutions". This class explains the state requirements for heating and air conditioning equipment and duct systems for residential and small commercial buildings. The computer software allows the user to quickly and inexpensively calculate the load,

size the duct and select the heating and air conditioning equipment. This course is offered every other year at the JEA Training Center computer lab room to a group of 10 to 15. JEA's goals for this course were to raise the requirements for duct systems.

7.1.1.2 Program Participation. This program is offered to homeowners, licensed contractors, building inspectors, engineers or architects. Upon completion of any of these courses, a certificate of Continuing Education will be issued to the applicable participants. The certificate for Continuing Education credits meets licensee state board requirements.

JEA has achieved more than 136 percent of its 1995 Demand Side Management Plan projected number of participants. JEA has achieved this response by extending its target market to architects, engineers, and other residential building professionals.

JEA has developed additional seminars that are minor variants of the original seminar themes. In the case of residential airflow seminars, JEA has developed commercial alternates that address uncontrolled airflow in non-residential buildings. JEA continually updates, revises, and implements educational measures based on recent developments, research, and customer demand. Each year new programs are addressed to increase the public's knowledge of energy efficiency.

7.1.1.3 Program Benefits. JEA customers will benefit from the availability of more informed and educated contractors, building inspectors and architects. The education courses will encourage energy efficient building practices, correct sizing of duct systems and heating and air conditioning equipment. System improvements will lower energy bills, increase homeowner comfort and improve indoor air quality. Properly sized equipment saves energy over the life of the system. Duct and equipment systems installed correctly will save energy and minimize air quality problems.

The electric consumption for the residential class will be reduced. Due to a more efficient system, the household will use less energy and make more efficient use of the energy it does use. This creates less of a demand on the electric utility. The customers and contractors will pay all installation costs. Participants eligible for continuing education credits pay a class registration fee.

7.1.1.4 Program Monitoring. In general, it would be difficult to measure the savings derived from someone's participation in an educational program. Hence, JEA measures the success of educational programs in the number of participants. Onsite metering research may be considered in the future.

In 1998, JEA initiated a more vigorous marketing effort to attain even greater attendance by construction professionals. The popular 'Constructing and Energy Efficient Home' seminar was increased from 11 credit hours to 12.5 credit hours and a free 2 hour Work Place Safety/Workers Compensation course was added for a total of 14.5 available credit hours. The 12.5-credit hour course with the 2-credit hour option made the class more attractive to licensees of the Construction Industry Licensing Board, which requires 14 credit hours for license renewal.

7.1.1.5 Cost Effectiveness Evaluation. JEA has used the Commission approved cost-effectiveness methodology required by Rule 25-17.008 to determine the cost-effectiveness of each measure. The cost effectiveness analysis can be found in Appendix B. JEA has chosen to continue the program due to positive responses from customers and potential benefit to the community even though the program was not found cost effective.

7.1.2 Energy Audits

7.1.2.1 Energy Audits for Low Income Customers

7.1.2.1.1 Program Description. This program targets low-income residential customers. Every customer is eligible for an energy audit. Audit recommendations usually require the customer to spend money replacing or adding energy conservation measures. Low-income customers may not have the discretionary income to make these changes. To alleviate this barrier, two types of low-income audits are offered.

One type of low-income audit is performed by the local weatherization agency, The Jacksonville Housing Partnership (JHP). JHP is under contract to JEA to perform this audit. During the audit, a conservation measure is installed or performed consistent with a priority list of measures established by JEA. Unfortunately JHP can only perform 150 installations per year since its overall mission is to perform a collection of major repairs on a limited number of owner occupied dwellings. The purpose of the weatherization program is to reduce the energy cost for low income households, particularly those households with elderly persons, disabled persons, and children, by improving the energy efficiency of their homes and ensuring a safe and healthy environment.

To supplement the 150 JHP audits, the JEA staff began to perform low-income audits on dwellings supervised by the local public housing agency, the Jacksonville Housing Authority (JHA). An estimated 90 additional audits are performed by JHA. This

type emphasizes behavioral solutions to high-energy use, and sometimes involves educational presentations to large audiences.

7.1.2.1.2 Program Participation. The Department of Community Affairs (DCA) has administered the state weatherization program since 1978. The DCA's local designated weatherization provider determines eligibility of low-income JEA residential customers. Both owner occupied and rental properties are eligible.

7.1.2.1.3 Program Benefits. Customers will be able to participate in conservation measures that they might not be able to otherwise afford. Low-income customers will benefit from the customized weatherization of their homes which will decrease their electric bills.

JEA will be helping to lower the bills of low-income customers who may have more difficulty paying their bills. Reducing the bill of the low-income customer may improve the customer's ability to pay the bill, thereby decreasing costly service disconnect fees and late charges. JEA believes this will help to achieve and maintain high customer satisfaction.

7.1.2.1.4 Program Monitoring. The DCA provides program oversight, development, program delivery, fiscal training, and monitoring for the weatherization providers. Each local agency is field monitored at least once a year. The local agencies must comply with federal and state program requirements. Each agency must provide the DCA with an agency audit once a year. The DCA receives monthly work reports from all weatherization providers, with detailed information about weatherization services provided, costs, and an estimate of the pre-weatherization monthly energy expenditures.

7.1.2.1.5 Cost Effectiveness Evaluation. JEA has used the Commission approved cost-effectiveness methodologies required by Rule 25-17.008 to determine the cost-effectiveness of this program. The cost-effectiveness analysis can be found in Appendix B. JEA has chosen to continue the program due to positive responses from customers and potential benefit to the community even though the program was not found cost effective.

7.1.2.2 Residential Energy Audits. JEA's objective for offering a Standard Energy Audit Program, a Landscape Audit Program, and a Water Audit Program is to lower kW and kWh usage in residential buildings by providing information and recommendations to home owners regarding increasing energy efficiency in a manner that is cost-effective for

the homeowner. Typically energy and demand savings are not directly attributed to audits. An estimated 3,600 audits are performed per year for this program.

7.1.2.3 Multi-Check. In 1990, JEA began offering a short version of the residential energy survey to each customer who requested a meter re-read. JEA looks for causes of high consumption and offer suggestions on how customers can better manage their energy resources. JEA offers this program for both electric and water services. Typically, energy and demand savings are not directly attributed to audits. An estimated 10,000 meter checks resulting in 5,000 multi-checks take place per year.

7.1.2.4 Energy Star. This is an Environmental Protection Agency (EPA) program intended to reduce energy consumption in new homes by 30% compared to the national Model Energy Code. The Florida Energy Efficiency Code is more stringent than the Model Energy Code, so savings will be less than the 30%. Upgrades include higher R-value insulation, tighter construction, more efficient windows and properly sized and installed duct systems and HVAC equipment.

7.2 Commercial / Industrial Programs

7.2.1 Contractor, Building Inspector and Architect Continuing Education

7.2.1.1 Program Description. JEA's positive experience with residential educational activities has supported the value of offering similar programs for commercial customers. In 1997 JEA began offering an educational seminar addressing energy issues related to non-residential buildings.

This program provides education and training to contractors, architects, engineers and facilities owners and managers to encourage conservation while improving occupant comfort or enhancing manufacturing processes. The classes are or will be approved by the Construction Industry Licensing Board (CILB) for contractors and the Board of Architecture and Interior Design for architects. Presently, the state of Florida has no continuing education requirements for registered engineers. The Board of Professional Engineers is expected to add this requirement for engineering licensing renewals within the next few years. The courses offered are listed and described below.

"Uncontrolled Airflow in Non-Residential Buildings" - This class will teach the students ways to reduce energy use, reduce building degradation and improve indoor air quality caused by uncontrolled airflow. Details include discussion of leaky ducts, building cavities and ceilings, misplaced vapor barriers, airflow imbalances and the transport of

contaminants into the structure. This course is or will be offered every other year at the JEA Training Center to a group of 25-30 in number. This course began in 1997 with an attendance of 36 participants.

"Uncontrolled Airflow: Field Studies" - This training will be at a field site at which a problem building will be tested and evaluated. The objective is to link uncontrolled airflow to problems of high-energy bills, pollutants, moisture accumulation, comfort conditions, mold and mildew, and ventilation quantities. The student will learn about the test equipment used to make the assessments, how to evaluate the data derived, remediation measures and possible outcomes of the suggested corrections. The training will be held at a customer site, and is now limited to 10 people. This course began in 1998 and 21 participants attended.

"Energy Efficient Ventilation for Commercial Buildings: ASHRAE 62-1989 Fundamentals, Applications and Field Studies" – This course offers an extensive look at the ASHRAE 62-1989 standard and the energy-efficient ways of applying the standard in the design and operation of HVAC systems in commercial buildings. It includes a thorough review of dehumidification technologies related to ventilation. Case studies will be discussed, with special attention on designs and operational guidelines which minimize energy consumption while achieving an indoor air quality that is healthy and conducive to productivity. This course will be held every two years at the JEA Training Center and will be offered to a group of 20-25 students. The first course was held in October of 1999.

"High Performance Commercial Buildings Designs for Florida's First Coast" - Topics include economics of building design, the building envelope, HVAC systems design for minimal life cycle operating costs while meeting the unique climate of North Florida, designing for power quality, using day-lighting techniques to minimize lighting and HVAC operating costs, optimal building maintenance, avoiding common design oversights which result in excessive rework and operating costs, and the use of available, proven, cutting-edge technologies in the design of the building systems. This seminar will be held annually at a local conference center, which will accommodate 50-75 building owners, property mangers, architects, engineers and suppliers. The first course was held May of 1999.

"Industrial Technology Update" - The agenda includes new technologies and processes being applied in industry; proven new technologies and processes that reduce costs and environmental concerns; avoiding costly, non-productive and energy-wasting manufacturing technologies; and increasing the reliability of the processes. Topics to be

discussed are technology transfer (ozone use, electro-technologies, product substitution, etc.); on-site power generation, including solar photovoltaic and fuel cells; and resources for learning about technology transfer. This annual event will be held at a local conference center and will be offered to a group of 50-75 plant engineers, plant managers and owners, consulting engineers, architects, contractors, and suppliers. The first course was held September of 1999.

In the year 2000, a continuing education class will train engineers, contractors, and building officials in the Windows version of the 1998 State of Florida Commercial Energy Code combined with the ACCA Manual N commercial heat loss / heat gain form.

7.2.1.2 Program Participation. Engineers, architects, and contractors benefit from these courses.

7.2.1.3 Program Benefits. Recent studies of 70 Florida buildings found only one with proper airflow. This is the first time that the findings of this new research have been presented in the State of Florida. Conditions in many buildings were so catastrophic, according to the researchers, that if not corrected, immense building repair costs and possible litigation could result. Uncontrolled airflow exists when air is forced across the building envelope, through building components or between building zones in a manner never intended by designers and builders.

The addition of the continuing education class will greatly assist those building officials responsible for plan review, and will increase the likelihood that the structure will be built energy efficient per the 1998 State of Florida Commercial Energy Code.

7.2.1.4 Program Monitoring. Participants will be surveyed at the end of the session and at a later date to measure the effectiveness of the course material. The survey will focus on the extent that the material was applied to the design and operation of structures under the participants' authority. The course will be modified or new seminars developed to better meet the customer needs for energy conservation.

7.2.1.5 Cost Effectiveness Evaluation. JEA has used the Commission approved cost-effectiveness methodologies required by Rule 25-17.008 to determine the cost-effectiveness of these measures. The cost-effectiveness analysis can be found in Appendix B. JEA has chosen to continue the program due to positive responses from customers and potential benefit to the community even though the program was not found cost effective.

In general, it is difficult to measure the savings derived from someone's participation in an educational program. Hence, JEA measures the success of educational

programs in the number of participants. Onsite metering research may be considered in the future.

7.2.2 Energy Audits

An estimated 200 commercial / industrial audits take place per year.

7.2.2.1 Commercial Energy Audits. Commercial Energy Audits are provided to all commercial customers upon customer request. Audits are performed by trained energy analysts who consider cost-effective conservation measures relating to thermal insulation, heating and air conditioning and lighting. The customer receives a written report on the findings of the analysis, including a description of recommended measures.

7.2.2.2 Industrial Energy Audits. Industrial Energy Audits are performed by professional engineers and specifically address the industrial customer's unique energy conservation opportunities. Opportunities include thermal improvements, space conditioning, lighting, cogeneration, process, and any new efficient electro-technology. The customer receives written recommendations describing each recommendation, initial cost, and projected annual savings.

7.3 Community Conservation Programs

7.3.1 Street Light Efficiency Program. JEA has converted nearly all of the approximately 60,000 mercury vapor illuminaries, owned by the City of Jacksonville, to the more energy efficient high-pressure sodium luminaries that use less electricity.

7.3.2 Community Information / Energy Education. This is a multi-faceted program aimed at promoting energy conservation awareness of the general public. This is accomplished through the following agenda.

First, "Speakers Bureau" is a program aimed at satisfying ongoing requests from the public and specialized groups in four main categories.

- Speakers with energy conservation expertise (residential conservation, commercial / industrial energy management, address business, professional, civic and church groups).
- Energy information specialists discuss energy conservation on radio and television talk shows and in media interviews.
- Professional engineers address management and personnel at large industrial sites.
- Energy educators or speakers coach teachers and address students at elementary, high school and college levels.

The speakers have a broad knowledge of energy curriculum, energy education materials content and sources. In 1998, a speakers' bureau spoke on 14 occasions reaching a total of 2,367 people.

Second, "Media Contact" Energy conservation events and developments are promoted through print and electronic media. One such effort is the JEA's 'Power for Pennies', a weekly three minute television segment aired on WTLV TV Channel 12 which features energy saving techniques and technologies. In 1998, a total of 495 written public service announcements was distributed for broadcast on local radio, cable television and broadcast television stations. A total of 52 'Power for Pennies' segments aired as well as a special program. Local radio stations in this period aired a total of 65 pre-recorded public service announcements. Three live radio programs were presented featuring seasonal conservation topics. A total of 7 news articles about energy conservation appeared in local publications.

Third, "Special Promotions and Special Events." JEA supports special energy awareness observances and special events. National Energy Awareness Month, Energy Week, Public Power Week and Electrical Safety Week are promoted through the media, businesses, school and special events including:

- Energy Week held at Naval Bases and at Vistakon in October (National Energy Awareness Month)
- Home & Patio Spring & Fall Shows
- Eartha M. White Nursing Home Health Fair
- Earth Day

Fourth, JEA produced a series of printed Bill Inserts and Brochures to highlight seasonal energy conservation tips and the JEA energy conservation services. A total of 645,101 inserts promoting energy conservation was placed in customer bills in 1998. In total JEA distributed more than one million statements, brochures and fact sheets promoting energy conservation.

Fifth, tours of JEA power plants and facilities are open to students grade six and up and adults. The tours provide a foundation for energy awareness.

Sixth, the Energy Conservation Division reviews product listings in appropriate magazines, such as ASHRAE Journal and Building Design and Construction as well as new products appearing on the local market. The Energy Product Reviews and fact sheets keep customers abreast of developments in energy technology.

Seventh, a selection of technically accurate attractive booklets, brochures, posters and multi-part kits is made available for customers of all ages.

Eighth, Video Series / Public Service Video are videos, slides, films, and filmstrips seeking to improve the effectiveness of energy conservation messages, with or without personal JEA representation.

Ninth, Model Energy Curriculum is an educational tool developed and used to coach teachers in knowledge of energy facts and teaching methods.

Tenth, the Tree Hill Outreach is an outreach to educators, students, senior citizens and other adults. The education is provided under contract with PATH Inc. through the Tree Hill Nature Center. Energy education or information is provided to approximately 10,000 consumers annually in Tree Hill programs. The JEA maintains a working photovoltaic demonstration at Tree Hill. In 1998, 128 Tree Hill Tours were given reaching an estimated 41,121 people.

Eleventh, JEA has a Key Accounts program to serve the needs of its largest customers. JEA is systematically contacting all of its Key Account customers to identify their energy-related needs and concerns and develop mechanisms to respond to issues raised by the customers. The Key Account program includes energy audits, power conditioning audits, power conditioning supply analysis, bill and rate analysis, problem resolution, and cogeneration services.

7.3.3 Tree Power Program.

JEA will continue to participate in the American Public Power Association's Tree Power program. JEA distributed over 27,945 trees during the current reporting period. This is done to help reduce greenhouse gases and to lower homeowners' cooling costs due to lack of shading.

Table 7-1
Detailed Residential Participation Goals

DSM Measure		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Constructing an Energy Efficient Home	Annual	260	325	260	325	260	325	260	325	260	325
	Cumulative	260	585	845	1,170	1,430	1,755	2,015	2,340	2,600	2,925
Improving Energy Efficiency and Indoor Air Quality in Homes	Annual	20	20	20	20	20	20	20	20	20	20
	Cumulative	20	40	60	80	100	120	140	160	180	200
Energy Audits for Low Income Customers (JHA)	Annual	235	235	235	235	235	235	235	235	235	235
	Cumulative	235	470	705	940	1,175	1,410	1,645	1,880	2,115	2,350
Energy Audits for Low Income Customers (JHP)	Annual	150	150	150	150	150	150	150	150	150	150
	Cumulative	150	300	450	600	750	900	1,050	1,200	1,350	1,500
Residential Audits – Energy, Landscape, Water	Annual	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600
	Cumulative	3,600	7,200	10,800	14,400	18,000	21,600	25,200	28,800	32,400	36,000
Energy Audits - Multi-Check	Annual	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
	Cumulative	5,000	10,000	15,000	20,000	25,000	30,000	35,000	40,000	45,000	50,000

* Number of New Participants and Cumulative Participants does not exclude the number of returning customers.

Table 7-2
Detailed Commercial/Industrial Participation Goals

DSM Measure		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Uncontrolled Airflow in Non-Residential Buildings	Annual	27	0	28	0	27	0	28	0	27	0
	Cumulative	27	27	55	0	82	82	110	110	137	137
Uncontrolled Airflow: Field Studies	Annual	20	20	20	20	20	20	20	20	20	20
	Cumulative	20	40	60	80	100	120	140	160	180	200
Energy Efficient Ventilation for Commercial Buildings	Annual	0	22	0	0	23	0	0	22	0	0
	Cumulative	0	22	22	22	45	45	45	67	67	67
High Performance Commercial Buildings Designs for Florida's First Coast	Annual	62	63	62	63	62	63	62	63	62	63
	Cumulative	62	125	187	250	312	375	437	500	562	625
Industrial Technology Update	Annual	62	63	62	63	62	63	62	63	62	63
	Cumulative	62	125	187	250	312	375	437	500	562	625
Commercial/Industrial Energy Audits	Annual	200	200	200	200	200	200	200	200	200	200
	Cumulative	200	400	600	800	1,000	1,200	1,400	1,600	1,800	2,000

* Number of New Participants and Cumulative Participants does not exclude the number of returning customers.

A. Fuel Forecast

Summary of Fuel Price Assumptions
(Base Case Starting Prices are CY 1999)

Fuel Type	UNIT	Heat Content Mbtu / Unit	Delivered Price		Fuel Commodity		Transportation		Base Annual Avg. Inc. 2000-2018	Low Annual Avg. Inc. 2000-2018	High Annual Avg. Inc. 2000-2018
			$/Unit	$/mmBtu	$/Unit	$/mmBtu	$/Unit	$/mmBtu			
1.8% Resid	BBL	6.30	12.00	1.905	10.50	1.667	1.50	0.238	3.0%	2.3%	4.0%
1.0% Resid	BBL	6.30	13.00	2.063	11.50	1.825	1.50	0.238	3.0%	2.3%	4.0%
3.0% Resid	BBL	6.30	10.50	1.667	9.00	1.429	1.50	0.238	3.0%	2.3%	4.0%
#2 Distillate	BBL	5.83	16.81	2.883	15.31	2.626	1.50	0.257	3.0%	2.3%	4.0%
Natural Gas - FTS -1	EQBBL	6.30	16.40	2.603	12.41	1.97	3.99	0.633	3.0%	2.3%	4.0%
Natural Gas - FTS -2	EQBBL	6.30	19.06	3.025	12.41	1.97	6.65	1.055	2.6%	1.9%	3.6%
Petroleum Coke	Tons	28.00	11.59	0.414	4.59	0.164	7.00	0.250	2.0%	1.0%	2.3%
SJRPP Blend*	Tons	25.12	35.22	1.402	N/A	N/A	N/A	N/A	1.3%	0.3%	1.6%
Scherer 4 Coal	Tons	18.70	30.45	1.628	N/A	N/A	N/A	N/A	0.8%	0.0%	1.1%

NOTE:

* Blend is 83.4 percent coal and 16.6 percent petroleum coke for 1999: 80 percent coal and 20 percent petroleum coke thereafter.

B. Cost Effectiveness Results for DSM Measures

B.1

Residential Measures

PROGRAM: NewHoP

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.64	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.70	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	561.7	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	528.0	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	74.96	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	1,297.70	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	5.196	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.3	%
(3) CUSTOMER DEMAND CHARGE PER KW	0.00	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: NewHoP

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	AVOIDED MARGINAL FUEL COST (C/KWH)	INCREASED MARGINAL FUEL COST (C/KWH)	REPLACEMENT FUEL COST (C/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWH EFFECTIVENESS FACTOR
2001	120	120	1.69	1.69	1.69	1.69	1	1
2002	140	140	1.74	1.73	1.73	1.74	1	1
2003	160	160	1.78	1.78	1.78	1.78	1	1
2004	180	180	1.83	1.83	1.83	1.83	1	1
2005	200	200	1.88	1.87	1.87	1.88	1	1
2006	220	220	1.93	1.92	1.92	1.93	1	1
2007	240	240	1.98	1.97	1.97	1.98	1	1
2008	260	260	2.03	2.02	2.02	2.03	1	1
2009	280	280	2.08	2.08	2.08	2.08	1	1
2010	300	300	2.14	2.13	2.13	2.14	1	1
2011	320	320	2.19	2.18	2.18	2.19	1	1
2012	340	340	2.25	2.24	2.24	2.25	1	1
2013	360	360	2.31	2.30	2.30	2.31	1	1
2014	380	380	2.37	2.36	2.36	2.37	1	1
2015	400	400	2.43	2.42	2.42	2.43	1	1
2016	420	420	2.49	2.48	2.48	2.49	1	1
2017	440	440	2.56	2.55	2.55	2.56	1	1
2018	460	460	2.62	2.61	2.61	2.62	1	1
2019	480	480	2.69	2.68	2.68	2.69	1	1
2020	500	500	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: NewHoP

* UNIT SIZE OF AVOIDED GENERATION UNIT = 125 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $47

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	3	932	1	2	19	17	0	8
2005	0.0713	3	932	1	2	20	18	0	8
2006	0.0730	3	932	1	2	20	18	0	9
2007	0.0747	4	932	1	2	21	18	0	9
2008	0.0764	4	932	1	2	21	19	0	9
2009	0.0781	4	932	1	2	22	19	0	9
2010	0.0799	4	932	1	2	23	20	0	9
2011	0.0818	4	932	1	2	23	20	0	10
2012	0.0836	4	932	1	2	24	21	0	10
2013	0.0856	4	932	1	2	24	22	0	10
2014	0.0875	4	932	1	2	25	22	0	10
2015	0.0895	4	932	1	2	26	23	0	11
2016	0.0916	4	932	1	3	26	23	0	11
2017	0.0937	4	932	1	3	27	24	0	11
2018	0.0959	5	932	1	3	28	24	0	11
2019	0.0981	5	932	1	3	28	25	0	12
2020	0.1003	5	932	1	3	29	26	0	12
NOMINAL		68	15,850	14	39	408	359	0	169
NPV		52		11	30	315	277	0	131

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: NewHoP

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $1

* INSERVICE COSTS OF AVOIDED DIST. (000) = $6

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	1
2002	0	0	0	0	0	0	1
2003	0	0	0	0	0	0	1
2004	0	0	0	0	2	2	2
2005	0	0	0	0	2	2	2
2006	0	0	0	0	2	2	2
2007	0	0	0	0	2	2	3
2008	0	0	0	0	2	2	3
2009	0	0	0	0	2	2	3
2010	0	0	0	0	2	2	3
2011	0	0	0	0	2	2	4
2012	0	0	0	1	2	2	4
2013	0	0	1	1	2	2	5
2014	0	0	1	1	2	2	5
2015	0	0	1	1	2	3	5
2016	0	0	1	1	2	3	6
2017	0	0	1	1	2	3	6
2018	0	0	1	1	2	3	7
2019	0	1	1	1	2	3	7
2020	0	1	1	1	2	3	8
NOMINAL	1	7	9	9	32	41	77
NPV	1	6	7	7	25	31	58

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: NewHoP

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	34	1	0	0	1	1
2002	73	1	0	0	1	1
2003	84	1	0	0	1	1
2004	95	2	0	0	2	2
2005	107	2	0	0	2	2
2006	118	2	0	0	2	2
2007	129	3	0	0	3	3
2008	140	3	0	0	3	3
2009	152	3	0	0	3	3
2010	163	3	0	0	3	3
2011	174	4	0	0	4	4
2012	185	4	0	0	4	4
2013	197	5	0	0	5	5
2014	208	5	0	0	5	5
2015	219	5	0	0	5	5
2016	230	6	0	0	6	6
2017	242	6	0	0	6	6
2018	253	7	0	0	7	7
2019	264	7	0	0	7	7
2020	275	8	0	0	8	8
NOMINAL	3,342	77	0	0	77	77
NPV		58	0	0	58	58

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: NewHoP

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ------>						<------ PARTICIPATING CUSTOMER COSTS & BENEFITS ------>										
YEAR	UTIL NONREC. COSTS $(000)	UTIL RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL NONREC. REBATES $(000)	UTIL RECUR. REBATES $(000)	TOTAL REBATE/ INCENT COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	9	0	9	0	0	0	156	0	156	32	1	2	2	0	0	0	0
2002	2	0	2	0	0	0	27	0	27	69	1	4	5	0	0	0	0
2003	2	0	2	0	0	0	27	0	27	79	1	4	6	0	0	0	0
2004	0	0	0	0	0	0	28	0	28	90	2	5	7	0	0	0	0
2005	0	0	0	0	0	0	28	0	28	100	2	6	8	0	0	0	0
2006	0	0	0	0	0	0	29	0	29	111	2	6	9	0	0	0	0
2007	0	0	0	0	0	0	30	0	30	121	2	7	10	0	0	0	0
2008	0	0	0	0	0	0	30	0	30	132	3	8	11	0	0	0	0
2009	0	0	0	0	0	0	31	0	31	143	3	9	12	0	0	0	0
2010	0	0	0	0	0	0	32	0	32	153	3	10	13	0	0	0	0
2011	0	0	0	0	0	0	33	0	33	164	4	11	14	0	0	0	0
2012	0	0	0	0	0	0	33	0	33	174	4	12	16	0	0	0	0
2013	0	0	0	0	0	0	34	0	34	185	4	13	17	0	0	0	0
2014	0	0	0	0	0	0	35	0	35	195	5	14	18	0	0	0	0
2015	0	0	0	0	0	0	36	0	36	206	5	15	20	0	0	0	0
2016	0	0	0	0	0	0	37	0	37	216	5	16	21	0	0	0	0
2017	0	0	0	0	0	0	37	0	37	227	6	17	23	0	0	0	0
2018	0	0	0	0	0	0	38	0	38	238	6	18	24	0	0	0	0
2019	0	0	0	0	0	0	39	0	39	248	7	19	26	0	0	0	0
2020	0	0	0	0	0	0	40	0	40	259	7	21	28	0	0	0	0
NOMINAL	12	0	12	0	0	0	780	0	780	3,142	73	215	288	0	0	0	0
NPV	12	0	12	0	0	0	649	0	649		55	163	219		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: NewHoP

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	9	156	0	165	0	0	1	0	1	(164)	(164)
2002	0	2	27	0	28	0	0	1	0	1	(27)	(190)
2003	0	2	27	0	29	0	0	1	0	1	(27)	(216)
2004	0	0	28	0	28	8	2	2	0	12	(15)	(231)
2005	0	0	28	0	28	8	2	2	0	13	(16)	(245)
2006	0	0	29	0	29	9	3	2	0	13	(16)	(259)
2007	0	0	30	0	30	9	3	3	0	14	(16)	(273)
2008	0	0	30	0	30	9	3	3	0	14	(16)	(287)
2009	0	0	31	0	31	9	3	3	0	15	(16)	(300)
2010	0	0	32	0	32	9	3	3	0	16	(16)	(313)
2011	0	0	33	0	33	10	3	4	0	16	(16)	(326)
2012	0	0	33	0	33	10	3	4	0	17	(16)	(339)
2013	0	0	34	0	34	10	3	5	0	18	(17)	(352)
2014	0	0	35	0	35	10	3	5	0	18	(17)	(364)
2015	0	0	36	0	36	11	3	5	0	19	(17)	(376)
2016	0	0	37	0	37	11	3	6	0	20	(17)	(388)
2017	0	0	37	0	37	11	3	6	0	20	(17)	(400)
2018	0	0	38	0	38	11	3	7	0	21	(17)	(411)
2019	0	0	39	0	39	12	3	7	0	22	(17)	(423)
2020	0	0	40	0	40	12	3	8	0	23	(17)	(434)
NOMINAL	0	12	780	0	792	169	49	77	0	295	(496)	
NPV	0	12	649	0	661	131	38	58	0	227	(434)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.34

PARTICIPANT COSTS AND BENEFITS
PROGRAM: NewHoP

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	2	0	0	0	2	156	0	0	156	(154)	(154)
2002	5	0	0	0	5	27	0	0	27	(22)	(175)
2003	6	0	0	0	6	27	0	0	27	(21)	(195)
2004	7	0	0	0	7	28	0	0	28	(21)	(215)
2005	8	0	0	0	8	28	0	0	28	(21)	(234)
2006	9	0	0	0	9	29	0	0	29	(20)	(252)
2007	10	0	0	0	10	30	0	0	30	(20)	(270)
2008	11	0	0	0	11	30	0	0	30	(20)	(287)
2009	12	0	0	0	12	31	0	0	31	(19)	(303)
2010	13	0	0	0	13	32	0	0	32	(19)	(318)
2011	14	0	0	0	14	33	0	0	33	(18)	(333)
2012	16	0	0	0	16	33	0	0	33	(18)	(346)
2013	17	0	0	0	17	34	0	0	34	(17)	(360)
2014	18	0	0	0	18	35	0	0	35	(17)	(372)
2015	20	0	0	0	20	36	0	0	36	(16)	(383)
2016	21	0	0	0	21	37	0	0	37	(15)	(394)
2017	23	0	0	0	23	37	0	0	37	(15)	(404)
2018	24	0	0	0	24	38	0	0	38	(14)	(414)
2019	26	0	0	0	26	39	0	0	39	(13)	(422)
2020	28	0	0	0	28	40	0	0	40	(12)	(430)
NOMINAL	288	0	0	0	288	780	0	0	780	(492)	
NPV	219	0	0	0	219	649	0	0	649	(430)	

In-service year of generation unit: 2004 Benefit/Cost Ratio: 0.34
Discount rate: 2.30%

RATE IMPACT TEST
PROGRAM: NewHoP

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	9	0	2	0	11	1	0	0	0	1	(11)	(11)
2002	0	2	0	5	0	6	1	0	0	0	1	(5)	(16)
2003	0	2	0	6	0	7	1	0	0	0	1	(6)	(21)
2004	0	0	0	7	0	7	10	2	0	0	12	6	(16)
2005	0	0	0	8	0	8	10	2	0	0	13	5	(11)
2006	0	0	0	9	0	9	11	3	0	0	13	5	(7)
2007	0	0	0	10	0	10	11	3	0	0	14	4	(3)
2008	0	0	0	11	0	11	12	3	0	0	14	4	0
2009	0	0	0	12	0	12	12	3	0	0	15	3	3
2010	0	0	0	13	0	13	13	3	0	0	16	3	5
2011	0	0	0	14	0	14	13	3	0	0	16	2	6
2012	0	0	0	16	0	16	14	3	0	0	17	1	7
2013	0	0	0	17	0	17	15	3	0	0	18	1	8
2014	0	0	0	18	0	18	15	3	0	0	18	(0)	8
2015	0	0	0	20	0	20	16	3	0	0	19	(1)	7
2016	0	0	0	21	0	21	17	3	0	0	20	(2)	6
2017	0	0	0	23	0	23	17	3	0	0	20	(2)	5
2018	0	0	0	24	0	24	18	3	0	0	21	(3)	3
2019	0	0	0	26	0	26	19	3	0	0	22	(4)	(0)
2020	0	0	0	28	0	28	19	3	0	0	23	(5)	(3)
NOMINAL	0	12	0	288	0	300	246	49	0	0	295	(5)	
NPV	0	12	0	219	0	231	189	38	0	0	227	(3)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.99

PROGRAM: NewHoO

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.64	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.70	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	561.7	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	528.0	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	163.92	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	1,208.74	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	5.196	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.3	%
(3) CUSTOMER DEMAND CHARGE PER KW	0.00	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III (1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: NewHoO

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	(5) AVOIDED MARGINAL FUEL COST (C/KWH)	(6) INCREASED MARGINAL FUEL COST (C/KWH)	(7) REPLACEMENT FUEL COST (C/KWH)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM KWH EFFECTIVENESS FACTOR
2001	969	969	1.69	1.69	1.69	1.69	1	1
2002	1149	1149	1.74	1.73	1.73	1.74	1	1
2003	1329	1329	1.78	1.78	1.78	1.78	1	1
2004	1509	1509	1.83	1.83	1.83	1.83	1	1
2005	1689	1689	1.88	1.87	1.87	1.88	1	1
2006	1869	1869	1.93	1.92	1.92	1.93	1	1
2007	2049	2049	1.98	1.97	1.97	1.98	1	1
2008	2229	2229	2.03	2.02	2.02	2.03	1	1
2009	2409	2409	2.08	2.08	2.08	2.08	1	1
2010	2589	2589	2.14	2.13	2.13	2.14	1	1
2011	2769	2769	2.19	2.18	2.18	2.19	1	1
2012	2949	2949	2.25	2.24	2.24	2.25	1	1
2013	3129	3129	2.31	2.30	2.30	2.31	1	1
2014	3309	3309	2.37	2.36	2.36	2.37	1	1
2015	3489	3489	2.43	2.42	2.42	2.43	1	1
2016	3669	3669	2.49	2.48	2.48	2.49	1	1
2017	3849	3849	2.56	2.55	2.55	2.56	1	1
2018	4029	4029	2.62	2.61	2.61	2.62	1	1
2019	4209	4209	2.69	2.68	2.68	2.69	1	1
2020	4389	4389	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: NewHoO

* UNIT SIZE OF AVOIDED GENERATION UNIT = 1,050 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $397

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	28	7,816	6	16	162	143	0	69
2005	0.0713	28	7,816	6	16	167	147	0	70
2006	0.0730	29	7,816	6	17	171	151	0	72
2007	0.0747	30	7,816	6	17	175	155	0	74
2008	0.0764	30	7,816	6	18	180	159	0	75
2009	0.0781	31	7,816	6	18	185	163	0	77
2010	0.0799	32	7,816	6	18	189	167	0	79
2011	0.0818	32	7,816	7	19	194	171	0	81
2012	0.0836	33	7,816	7	19	199	176	0	83
2013	0.0856	34	7,816	7	20	205	180	0	85
2014	0.0875	35	7,816	7	20	210	185	0	87
2015	0.0895	36	7,816	7	21	215	190	0	89
2016	0.0916	36	7,816	7	21	221	195	0	91
2017	0.0937	37	7,816	7	22	227	200	0	93
2018	0.0959	38	7,816	8	22	233	205	0	95
2019	0.0981	39	7,816	8	23	239	210	0	98
2020	0.1003	40	7,816	8	23	245	216	0	100
NOMINAL		568	132,878	114	329	3,416	3,010	0	1,417
NPV		440		88	254	2,640	2,326	0	1,096

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: NewHoO

1329

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $7

* INSERVICE COSTS OF AVOIDED DIST. (000) = $50

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	5
2002	0	0	0	0	0	0	10
2003	0	0	0	0	0	0	12
2004	1	3	3	3	13	16	15
2005	1	3	4	4	13	17	17
2006	1	3	4	4	14	17	19
2007	1	3	4	4	14	18	22
2008	1	3	4	4	14	18	24
2009	1	3	4	4	15	18	27
2010	1	3	4	4	15	19	30
2011	1	3	4	4	15	19	33
2012	1	4	4	4	16	20	36
2013	1	4	4	4	16	20	39
2014	1	4	4	4	16	21	43
2015	1	4	4	4	17	21	46
2016	1	4	5	5	17	22	50
2017	1	4	5	5	17	22	54
2018	1	4	5	5	18	23	58
2019	1	4	5	5	18	23	62
2020	1	4	5	5	19	24	66
NOMINAL	10	61	71	71	266	338	668
NPV	8	47	55	55	206	261	505

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: NewHoO

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	272	5	0	0	5	5
2002	595	10	0	0	10	10
2003	696	12	0	0	12	12
2004	797	15	0	0	15	15
2005	898	17	0	0	17	17
2006	999	19	0	0	19	19
2007	1,100	22	0	0	22	22
2008	1,201	24	0	0	24	24
2009	1,303	27	0	0	27	27
2010	1,404	30	0	0	30	30
2011	1,505	33	0	0	33	33
2012	1,606	36	0	0	36	36
2013	1,707	39	0	0	39	39
2014	1,808	43	0	0	43	43
2015	1,909	46	0	0	46	46
2016	2,010	50	0	0	50	50
2017	2,111	54	0	0	54	54
2018	2,213	58	0	0	58	58
2019	2,314	62	0	0	62	62
2020	2,415	66	0	0	66	66
NOMINAL	28,863	668	0	0	668	668
NPV		505	0	0	505	505

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS GAIN
PROGRAM: NewHoO

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ------>						<------ PARTICIPATING CUSTOMER COSTS & BENEFITS ------>										
YEAR	UTIL NONREC. COSTS $(000)	UTIL RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL NONREC. REBATES $(000)	UTIL RECUR. REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	159	0	159	0	0	0	1,171	0	1,171	256	4	13	18	0	0	0	0
2002	30	0	30	0	0	0	223	0	223	559	10	30	39	0	0	0	0
2003	31	0	31	0	0	0	228	0	228	654	12	36	47	0	0	0	0
2004	0	0	0	0	0	0	233	0	233	749	14	42	55	0	0	0	0
2005	0	0	0	0	0	0	238	0	238	844	16	48	64	0	0	0	0
2006	0	0	0	0	0	0	244	0	244	939	18	55	73	0	0	0	0
2007	0	0	0	0	0	0	249	0	249	1,034	21	62	82	0	0	0	0
2008	0	0	0	0	0	0	255	0	255	1,129	23	69	92	0	0	0	0
2009	0	0	0	0	0	0	261	0	261	1,224	26	76	102	0	0	0	0
2010	0	0	0	0	0	0	267	0	267	1,319	28	84	112	0	0	0	0
2011	0	0	0	0	0	0	273	0	273	1,415	31	92	123	0	0	0	0
2012	0	0	0	0	0	0	279	0	279	1,510	34	101	135	0	0	0	0
2013	0	0	0	0	0	0	286	0	286	1,605	37	110	147	0	0	0	0
2014	0	0	0	0	0	0	292	0	292	1,700	40	119	159	0	0	0	0
2015	0	0	0	0	0	0	299	0	299	1,795	44	128	172	0	0	0	0
2016	0	0	0	0	0	0	306	0	306	1,890	47	138	185	0	0	0	0
2017	0	0	0	0	0	0	313	0	313	1,985	51	148	199	0	0	0	0
2018	0	0	0	0	0	0	320	0	320	2,080	55	159	214	0	0	0	0
2019	0	0	0	0	0	0	328	0	328	2,175	59	170	229	0	0	0	0
2020	0	0	0	0	0	0	335	0	335	2,270	63	182	245	0	0	0	0
NOMINAL	220	0	220	0	0	0	6,401	0	6,401	27,132	632	1,861	2,492	0	0	0	0
NPV	218	0	218	0	0	0	5,305	0	5,305		478	1,410	1,888		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: NewHoO

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	159	1,171	0	1,330	0	0	5	0	5	(1,326)	(1,326)
2002	0	30	223	0	253	0	0	10	0	10	(242)	(1,563)
2003	0	31	228	0	259	0	0	12	0	12	(246)	(1,798)
2004	0	0	233	0	233	69	20	15	0	103	(130)	(1,919)
2005	0	0	238	0	238	70	20	17	0	107	(131)	(2,039)
2006	0	0	244	0	244	72	21	19	0	112	(132)	(2,156)
2007	0	0	249	0	249	74	21	22	0	117	(133)	(2,272)
2008	0	0	255	0	255	75	22	24	0	121	(134)	(2,386)
2009	0	0	261	0	261	77	22	27	0	126	(135)	(2,498)
2010	0	0	267	0	267	79	23	30	0	132	(135)	(2,609)
2011	0	0	273	0	273	81	23	33	0	137	(136)	(2,717)
2012	0	0	279	0	279	83	24	36	0	143	(137)	(2,823)
2013	0	0	286	0	286	85	24	39	0	148	(137)	(2,928)
2014	0	0	292	0	292	87	25	43	0	154	(138)	(3,031)
2015	0	0	299	0	299	89	26	46	0	161	(138)	(3,131)
2016	0	0	306	0	306	91	26	50	0	167	(139)	(3,230)
2017	0	0	313	0	313	93	27	54	0	174	(139)	(3,327)
2018	0	0	320	0	320	95	27	58	0	181	(140)	(3,422)
2019	0	0	328	0	328	98	28	62	0	188	(140)	(3,515)
2020	0	0	335	0	335	100	29	66	0	195	(140)	(3,606)
NOMINAL	0	220	6,401	0	6,621	1,417	409	668	0	2,493	(4,128)	
NPV	0	218	5,305	0	5,523	1,096	316	505	0	1,917	(3,606)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.35

PARTICIPANT COSTS AND BENEFITS
PROGRAM: NewHoO

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	18	0	0	0	18	1,171	0	0	1,171	(1,154)	(1,154)
2002	39	0	0	0	39	223	0	0	223	(183)	(1,333)
2003	47	0	0	0	47	228	0	0	228	(180)	(1,505)
2004	55	0	0	0	55	233	0	0	233	(177)	(1,671)
2005	64	0	0	0	64	238	0	0	238	(174)	(1,830)
2006	73	0	0	0	73	244	0	0	244	(171)	(1,983)
2007	82	0	0	0	82	249	0	0	249	(167)	(2,128)
2008	92	0	0	0	92	255	0	0	255	(163)	(2,268)
2009	102	0	0	0	102	261	0	0	261	(159)	(2,400)
2010	112	0	0	0	112	267	0	0	267	(155)	(2,526)
2011	123	0	0	0	123	273	0	0	273	(150)	(2,646)
2012	135	0	0	0	135	279	0	0	279	(145)	(2,758)
2013	147	0	0	0	147	286	0	0	286	(139)	(2,864)
2014	159	0	0	0	159	292	0	0	292	(133)	(2,963)
2015	172	0	0	0	172	299	0	0	299	(127)	(3,056)
2016	185	0	0	0	185	306	0	0	306	(121)	(3,142)
2017	199	0	0	0	199	313	0	0	313	(114)	(3,221)
2018	214	0	0	0	214	320	0	0	320	(106)	(3,293)
2019	229	0	0	0	229	328	0	0	328	(99)	(3,359)
2020	245	0	0	0	245	335	0	0	335	(91)	(3,418)
NOMINAL	2,492	0	0	0	2,492	6,401	0	0	6,401	(3,909)	
NPV	1,888	0	0	0	1,888	5,305	0	0	5,305	(3,418)	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 0.36

RATE IMPACT TEST
PROGRAM: NewHoO

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	159	0	18	0	176	5	0	0	0	5	(172)	(172)
2002	0	30	0	39	0	70	10	0	0	0	10	(59)	(230)
2003	0	31	0	47	0	78	12	0	0	0	12	(66)	(293)
2004	0	0	0	55	0	55	83	20	0	0	103	48	(248)
2005	0	0	0	64	0	64	87	20	0	0	107	43	(209)
2006	0	0	0	73	0	73	91	21	0	0	112	39	(174)
2007	0	0	0	82	0	82	95	21	0	0	117	34	(144)
2008	0	0	0	92	0	92	100	22	0	0	121	30	(118)
2009	0	0	0	102	0	102	104	22	0	0	126	25	(98)
2010	0	0	0	112	0	112	109	23	0	0	132	19	(82)
2011	0	0	0	123	0	123	114	23	0	0	137	14	(71)
2012	0	0	0	135	0	135	119	24	0	0	143	8	(65)
2013	0	0	0	147	0	147	124	24	0	0	148	2	(64)
2014	0	0	0	159	0	159	129	25	0	0	154	(5)	(67)
2015	0	0	0	172	0	172	135	26	0	0	161	(11)	(75)
2016	0	0	0	185	0	185	141	26	0	0	167	(18)	(88)
2017	0	0	0	199	0	199	147	27	0	0	174	(26)	(106)
2018	0	0	0	214	0	214	153	27	0	0	181	(33)	(129)
2019	0	0	0	229	0	229	160	28	0	0	188	(41)	(156)
2020	0	0	0	245	0	245	166	29	0	0	195	(49)	(188)
NOMINAL	0	220	0	2,492	0	2,712	2,085	409	0	0	2,493	(219)	
NPV	0	218	0	1,888	0	2,105	1,601	316	0	0	1,917	(188)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.91

PROGRAM: RDuct

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.65	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.71	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	619.1	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	582.0	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	692.89	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	400.82	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	5.196	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.3	%
(3) CUSTOMER DEMAND CHARGE PER KW	0.00	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: RDuct

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	AVOIDED MARGINAL FUEL COST (C/KWH)	INCREASED MARGINAL FUEL COST (C/KWH)	REPLACEMENT FUEL COST (C/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWH EFFECTIVENESS FACTOR
2001	62	62	1.69	1.69	1.69	1.69	1	1
2002	92	92	1.74	1.73	1.73	1.74	1	1
2003	92	92	1.78	1.78	1.78	1.78	1	1
2004	122	122	1.83	1.83	1.83	1.83	1	1
2005	122	122	1.88	1.87	1.87	1.88	1	1
2006	152	152	1.93	1.92	1.92	1.93	1	1
2007	152	152	1.98	1.97	1.97	1.98	1	1
2008	182	182	2.03	2.02	2.02	2.03	1	1
2009	182	182	2.08	2.08	2.08	2.08	1	1
2010	212	212	2.14	2.13	2.13	2.14	1	1
2011	212	212	2.19	2.18	2.18	2.19	1	1
2012	242	242	2.25	2.24	2.24	2.25	1	1
2013	242	242	2.31	2.30	2.30	2.31	1	1
2014	272	272	2.37	2.36	2.36	2.37	1	1
2015	272	272	2.43	2.42	2.42	2.43	1	1
2016	302	302	2.49	2.48	2.48	2.49	1	1
2017	302	302	2.56	2.55	2.55	2.56	1	1
2018	332	332	2.62	2.61	2.61	2.62	1	1
2019	332	332	2.69	2.68	2.68	2.69	1	1
2020	362	362	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: RDuct

* UNIT SIZE OF AVOIDED GENERATION UNIT = 86 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $33

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	2	642	0	1	13	12	0	6
2005	0.0713	2	642	0	1	14	12	0	6
2006	0.0730	2	642	0	1	14	12	0	6
2007	0.0747	2	642	0	1	14	13	0	6
2008	0.0764	2	642	0	1	15	13	0	6
2009	0.0781	3	642	1	1	15	13	0	6
2010	0.0799	3	642	1	2	16	14	0	6
2011	0.0818	3	642	1	2	16	14	0	7
2012	0.0836	3	642	1	2	16	14	0	7
2013	0.0856	3	642	1	2	17	15	0	7
2014	0.0875	3	642	1	2	17	15	0	7
2015	0.0895	3	642	1	2	18	16	0	7
2016	0.0916	3	642	1	2	18	16	0	7
2017	0.0937	3	642	1	2	19	16	0	8
2018	0.0959	3	642	1	2	19	17	0	8
2019	0.0981	3	642	1	2	20	17	0	8
2020	0.1003	3	642	1	2	20	18	0	8
NOMINAL		47	10,911	9	27	281	247	0	116
NPV		36		7	21	217	191	0	90

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: RDuct

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $1

* INSERVICE COSTS OF AVOIDED DIST. (000) = $4

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	1
2003	0	0	0	0	0	0	1
2004	0	0	0	0	1	1	1
2005	0	0	0	0	1	1	1
2006	0	0	0	0	1	1	2
2007	0	0	0	0	1	1	2
2008	0	0	0	0	1	1	2
2009	0	0	0	0	1	1	2
2010	0	0	0	0	1	1	3
2011	0	0	0	0	1	1	3
2012	0	0	0	0	1	1	3
2013	0	0	0	0	1	1	3
2014	0	0	0	0	1	1	4
2015	0	0	0	0	1	1	4
2016	0	0	0	0	1	2	4
2017	0	0	0	0	1	2	5
2018	0	0	0	0	1	2	5
2019	0	0	0	0	1	2	6
2020	0	0	0	0	1	2	6
NOMINAL	1	4	5	5	19	24	58
NPV	1	3	4	4	14	18	44

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: RDuct

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	19	0	0	0	0	0
2002	48	1	0	0	1	1
2003	57	1	0	0	1	1
2004	66	1	0	0	1	1
2005	76	1	0	0	1	1
2006	85	2	0	0	2	2
2007	94	2	0	0	2	2
2008	103	2	0	0	2	2
2009	113	2	0	0	2	2
2010	122	3	0	0	3	3
2011	131	3	0	0	3	3
2012	141	3	0	0	3	3
2013	150	3	0	0	3	3
2014	159	4	0	0	4	4
2015	168	4	0	0	4	4
2016	178	4	0	0	4	4
2017	187	5	0	0	5	5
2018	196	5	0	0	5	5
2019	206	6	0	0	6	6
2020	215	6	0	0	6	6
NOMINAL	2,513	58	0	0	58	58
NPV		44	0	0	44	44

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: RDuct

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ------>						<------ PARTICIPATING CUSTOMER COSTS & BENEFITS ------>										
YEAR	UTIL NONREC. COSTS $(000)	UTIL RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL NONREC. REBATES $(000)	UTIL RECUR REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	43	0	43	0	0	0	25	0	25	18	0	1	1	0	0	0	0
2002	21	0	21	0	0	0	12	0	12	45	1	2	3	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	54	1	3	4	0	0	0	0
2004	0	0	0	0	0	0	13	0	13	62	1	3	5	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	71	1	4	5	0	0	0	0
2006	0	0	0	0	0	0	13	0	13	80	2	5	6	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	88	2	5	7	0	0	0	0
2008	0	0	0	0	0	0	14	0	14	97	2	6	8	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	106	2	7	9	0	0	0	0
2010	0	0	0	0	0	0	15	0	15	115	2	7	10	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	123	3	8	11	0	0	0	0
2012	0	0	0	0	0	0	15	0	15	132	3	9	12	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	141	3	10	13	0	0	0	0
2014	0	0	0	0	0	0	16	0	16	150	4	10	14	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	158	4	11	15	0	0	0	0
2016	0	0	0	0	0	0	17	0	17	167	4	12	16	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	176	5	13	18	0	0	0	0
2018	0	0	0	0	0	0	18	0	18	184	5	14	19	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	193	5	15	20	0	0	0	0
2020	0	0	0	0	0	0	19	0	19	202	6	16	22	0	0	0	0
NOMINAL	64	0	64	0	0	0	177	0	177	2,362	55	162	218	0	0	0	0
NPV	64	0	64	0	0	0	145	0	145		42	123	164		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: RDuct

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	43	25	0	68	0	0	0	0	0	(67)	(67)
2002	0	21	12	0	34	0	0	1	0	1	(33)	(99)
2003	0	0	0	0	0	0	0	1	0	1	1	(99)
2004	0	0	13	0	13	6	1	1	0	8	(5)	(103)
2005	0	0	0	0	0	6	1	1	0	9	9	(95)
2006	0	0	13	0	13	6	1	2	0	9	(4)	(99)
2007	0	0	0	0	0	6	2	2	0	9	9	(91)
2008	0	0	14	0	14	6	2	2	0	10	(4)	(94)
2009	0	0	0	0	0	6	2	2	0	10	10	(86)
2010	0	0	15	0	15	6	2	3	0	11	(4)	(89)
2011	0	0	0	0	0	7	2	3	0	11	11	(80)
2012	0	0	15	0	15	7	2	3	0	12	(4)	(83)
2013	0	0	0	0	0	7	2	3	0	12	12	(74)
2014	0	0	16	0	16	7	2	4	0	13	(4)	(77)
2015	0	0	0	0	0	7	2	4	0	13	13	(67)
2016	0	0	17	0	17	7	2	4	0	14	(3)	(69)
2017	0	0	0	0	0	8	2	5	0	14	14	(59)
2018	0	0	18	0	18	8	2	5	0	15	(3)	(61)
2019	0	0	0	0	0	8	2	6	0	16	16	(51)
2020	0	0	19	0	19	8	2	6	0	16	(2)	(53)
NOMINAL	0	64	177	0	241	116	29	58	0	204	(38)	
NPV	0	64	145	0	209	90	22	44	0	156	(53)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.75

PARTICIPANT COSTS AND BENEFITS
PROGRAM: RDuct

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	1	0	0	0	1	25	0	0	25	(24)	(24)
2002	3	0	0	0	3	12	0	0	12	(9)	(33)
2003	4	0	0	0	4	0	0	0	0	4	(29)
2004	5	0	0	0	5	13	0	0	13	(8)	(37)
2005	5	0	0	0	5	0	0	0	0	5	(32)
2006	6	0	0	0	6	13	0	0	13	(7)	(38)
2007	7	0	0	0	7	0	0	0	0	7	(32)
2008	8	0	0	0	8	14	0	0	14	(6)	(37)
2009	9	0	0	0	9	0	0	0	0	9	(30)
2010	10	0	0	0	10	15	0	0	15	(5)	(34)
2011	11	0	0	0	11	0	0	0	0	11	(25)
2012	12	0	0	0	12	15	0	0	15	(4)	(28)
2013	13	0	0	0	13	0	0	0	0	13	(19)
2014	14	0	0	0	14	16	0	0	16	(2)	(20)
2015	15	0	0	0	15	0	0	0	0	15	(9)
2016	16	0	0	0	16	17	0	0	17	(1)	(9)
2017	18	0	0	0	18	0	0	0	0	18	3
2018	19	0	0	0	19	18	0	0	18	1	4
2019	20	0	0	0	20	0	0	0	0	20	17
2020	22	0	0	0	22	19	0	0	19	3	19
NOMINAL	218	0	0	0	218	177	0	0	177	41	
NPV	164	0	0	0	164	145	0	0	145	19	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 1.13

RATE IMPACT TEST
PROGRAM: RDuct

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	43	0	1	0	44	0	0	0	0	0	(44)	(44)
2002	0	21	0	3	0	24	1	0	0	0	1	(24)	(67)
2003	0	0	0	4	0	4	1	0	0	0	1	(3)	(70)
2004	0	0	0	5	0	5	7	1	0	0	8	4	(66)
2005	0	0	0	5	0	5	7	1	0	0	9	3	(63)
2006	0	0	0	6	0	6	8	1	0	0	9	3	(61)
2007	0	0	0	7	0	7	8	2	0	0	9	2	(59)
2008	0	0	0	8	0	8	8	2	0	0	10	2	(57)
2009	0	0	0	9	0	9	9	2	0	0	10	1	(56)
2010	0	0	0	10	0	10	9	2	0	0	11	1	(55)
2011	0	0	0	11	0	11	10	2	0	0	11	0	(55)
2012	0	0	0	12	0	12	10	2	0	0	12	(0)	(55)
2013	0	0	0	13	0	13	10	2	0	0	12	(1)	(56)
2014	0	0	0	14	0	14	11	2	0	0	13	(1)	(57)
2015	0	0	0	15	0	15	11	2	0	0	13	(2)	(58)
2016	0	0	0	16	0	16	12	2	0	0	14	(3)	(60)
2017	0	0	0	18	0	18	12	2	0	0	14	(3)	(62)
2018	0	0	0	19	0	19	13	2	0	0	15	(4)	(65)
2019	0	0	0	20	0	20	14	2	0	0	16	(5)	(68)
2020	0	0	0	22	0	22	14	2	0	0	16	(6)	(72)
NOMINAL	0	64	0	218	0	282	175	29	0	0	204	(78)	
NPV	0	64	0	164	0	228	134	22	0	0	156	(72)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.69

PROGRAM: HEPP

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.04	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.04	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	196.4	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	184.6	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	61.16	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	57.56	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	5.196	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.3	%
(3) CUSTOMER DEMAND CHARGE PER KW	0.00	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: HEPP

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	AVOIDED MARGINAL FUEL COST (C/KWH)	INCREASED MARGINAL FUEL COST (C/KWH)	REPLACEMENT FUEL COST (C/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWH EFFECTIVENESS FACTOR
2001	4969	4969	1.69	1.69	1.69	1.69	1	1
2002	5908	5908	1.74	1.73	1.73	1.74	1	1
2003	6878	6878	1.78	1.78	1.78	1.78	1	1
2004	7880	7880	1.83	1.83	1.83	1.83	1	1
2005	8913	8913	1.88	1.87	1.87	1.88	1	1
2006	9946	9946	1.93	1.92	1.92	1.93	1	1
2007	10979	10979	1.98	1.97	1.97	1.98	1	1
2008	12012	12012	2.03	2.02	2.02	2.03	1	1
2009	13045	13045	2.08	2.08	2.08	2.08	1	1
2010	14078	14078	2.14	2.13	2.13	2.14	1	1
2011	15111	15111	2.19	2.18	2.18	2.19	1	1
2012	16144	16144	2.25	2.24	2.24	2.25	1	1
2013	17177	17177	2.31	2.30	2.30	2.31	1	1
2014	18210	18210	2.37	2.36	2.36	2.37	1	1
2015	19243	19243	2.43	2.42	2.42	2.43	1	1
2016	20276	20276	2.49	2.48	2.48	2.49	1	1
2017	21309	21309	2.56	2.55	2.55	2.56	1	1
2018	22342	22342	2.62	2.61	2.61	2.62	1	1
2019	23375	23375	2.69	2.68	2.68	2.69	1	1
2020	24408	24408	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: HEPP

* UNIT SIZE OF AVOIDED GENERATION UNIT = 343 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $130

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	9	2,551	2	5	53	47	0	22
2005	0.0713	9	2,551	2	5	54	48	0	23
2006	0.0730	9	2,551	2	5	56	49	0	23
2007	0.0747	10	2,551	2	6	57	50	0	24
2008	0.0764	10	2,551	2	6	59	52	0	25
2009	0.0781	10	2,551	2	6	60	53	0	25
2010	0.0799	10	2,551	2	6	62	54	0	26
2011	0.0818	11	2,551	2	6	63	56	0	26
2012	0.0836	11	2,551	2	6	65	57	0	27
2013	0.0856	11	2,551	2	6	67	59	0	28
2014	0.0875	11	2,551	2	7	69	60	0	28
2015	0.0895	12	2,551	2	7	70	62	0	29
2016	0.0916	12	2,551	2	7	72	64	0	30
2017	0.0937	12	2,551	2	7	74	65	0	30
2018	0.0959	12	2,551	2	7	76	67	0	31
2019	0.0981	13	2,551	3	7	78	69	0	32
2020	0.1003	13	2,551	3	8	80	70	0	33
NOMINAL		185	43,368	37	107	1,115	983	0	462
NPV		143		29	83	862	759	0	358

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: HEPP

6878

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $2

* INSERVICE COSTS OF AVOIDED DIST. (000) = $16

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	8
2002	0	0	0	0	0	0	19
2003	0	0	0	0	0	0	22
2004	0	1	1	1	4	5	26
2005	0	1	1	1	4	5	31
2006	0	1	1	1	4	6	36
2007	0	1	1	1	4	6	41
2008	0	1	1	1	5	6	46
2009	0	1	1	1	5	6	51
2010	0	1	1	1	5	6	57
2011	0	1	1	1	5	6	63
2012	0	1	1	1	5	6	69
2013	0	1	1	1	5	7	75
2014	0	1	1	1	5	7	82
2015	0	1	1	1	5	7	89
2016	0	1	1	1	6	7	96
2017	0	1	2	2	6	7	104
2018	0	1	2	2	6	7	112
2019	0	1	2	2	6	7	120
2020	0	1	2	2	6	8	129
NOMINAL	3	20	23	23	86	109	1,276
NPV	3	15	18	18	67	85	963

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: HEPP

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	488	8	0	0	8	8
2002	1,068	19	0	0	19	19
2003	1,255	22	0	0	22	22
2004	1,449	26	0	0	26	26
2005	1,649	31	0	0	31	31
2006	1,852	36	0	0	36	36
2007	2,055	41	0	0	41	41
2008	2,258	46	0	0	46	46
2009	2,460	51	0	0	51	51
2010	2,663	57	0	0	57	57
2011	2,866	63	0	0	63	63
2012	3,069	69	0	0	69	69
2013	3,272	75	0	0	75	75
2014	3,475	82	0	0	82	82
2015	3,678	89	0	0	89	89
2016	3,880	96	0	0	96	96
2017	4,083	104	0	0	104	104
2018	4,286	112	0	0	112	112
2019	4,489	120	0	0	120	120
2020	4,692	129	0	0	129	129
NOMINAL	54,987	1,276	0	0	1,276	1,276
NPV		963	0	0	963	963

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: HEPP

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ---------->						<---------- PARTICIPATING CUSTOMER COSTS & BENEFITS---------->										
YEAR	UTIL. NONREC. COSTS $(000)	UTIL. RECUR COSTS $(000)	TOTAL UTIL. PGM COSTS $(000)	UTIL NONREC. REBATES $(000)	UTIL RECUR. REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	304	0	304	0	0	0	286	0	286	459	8	24	32	0	0	0	0
2002	59	0	59	0	0	0	55	0	55	1,004	18	53	71	0	0	0	0
2003	62	0	62	0	0	0	58	0	58	1,180	21	64	85	0	0	0	0
2004	0	0	0	0	0	0	62	0	62	1,362	25	76	101	0	0	0	0
2005	0	0	0	0	0	0	65	0	65	1,550	29	88	117	0	0	0	0
2006	0	0	0	0	0	0	67	0	67	1,741	34	101	135	0	0	0	0
2007	0	0	0	0	0	0	68	0	68	1,931	38	115	153	0	0	0	0
2008	0	0	0	0	0	0	70	0	70	2,122	43	129	172	0	0	0	0
2009	0	0	0	0	0	0	71	0	71	2,313	48	144	192	0	0	0	0
2010	0	0	0	0	0	0	73	0	73	2,503	54	160	213	0	0	0	0
2011	0	0	0	0	0	0	75	0	75	2,694	59	176	235	0	0	0	0
2012	0	0	0	0	0	0	76	0	76	2,885	65	192	258	0	0	0	0
2013	0	0	0	0	0	0	78	0	78	3,076	71	210	281	0	0	0	0
2014	0	0	0	0	0	0	80	0	80	3,266	78	228	306	0	0	0	0
2015	0	0	0	0	0	0	82	0	82	3,457	84	247	331	0	0	0	0
2016	0	0	0	0	0	0	84	0	84	3,648	91	267	358	0	0	0	0
2017	0	0	0	0	0	0	86	0	86	3,838	98	287	385	0	0	0	0
2018	0	0	0	0	0	0	88	0	88	4,029	106	308	414	0	0	0	0
2019	0	0	0	0	0	0	90	0	90	4,220	114	330	444	0	0	0	0
2020	0	0	0	0	0	0	92	0	92	4,410	122	353	475	0	0	0	0
NOMINAL	425	0	425	0	0	0	1,704	0	1,704	51,688	1,207	3,553	4,759	0	0	0	0
NPV	421	0	421	0	0	0	1,405	0	1,405		911	2,686	3,596		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: HEPP

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	304	286	0	590	0	0	8	0	8	(582)	(582)
2002	0	59	55	0	114	0	0	19	0	19	(96)	(675)
2003	0	62	58	0	121	0	0	22	0	22	(98)	(769)
2004	0	0	62	0	62	22	6	26	0	55	(6)	(775)
2005	0	0	65	0	65	23	7	31	0	60	(5)	(779)
2006	0	0	67	0	67	23	7	36	0	66	(1)	(780)
2007	0	0	68	0	68	24	7	41	0	71	3	(777)
2008	0	0	70	0	70	25	7	46	0	77	8	(771)
2009	0	0	71	0	71	25	7	51	0	83	12	(761)
2010	0	0	73	0	73	26	7	57	0	90	17	(747)
2011	0	0	75	0	75	26	8	63	0	97	22	(729)
2012	0	0	76	0	76	27	8	69	0	104	27	(708)
2013	0	0	78	0	78	28	8	75	0	111	33	(683)
2014	0	0	80	0	80	28	8	82	0	118	38	(655)
2015	0	0	82	0	82	29	8	89	0	126	45	(622)
2016	0	0	84	0	84	30	8	96	0	135	51	(586)
2017	0	0	86	0	86	30	9	104	0	143	58	(546)
2018	0	0	88	0	88	31	9	112	0	152	65	(502)
2019	0	0	90	0	90	32	9	120	0	161	72	(454)
2020	0	0	92	0	92	33	9	129	0	171	79	(403)
NOMINAL	0	425	1,704	0	2,129	462	132	1,276	0	1,870	(258)	
NPV	0	421	1,405	0	1,826	358	102	963	0	1,423	(403)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.78

PARTICIPANT COSTS AND BENEFITS
PROGRAM: HEPP

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	32	0	0	0	32	286	0	0	286	(254)	(254)
2002	71	0	0	0	71	55	0	0	55	16	(239)
2003	85	0	0	0	85	58	0	0	58	27	(213)
2004	101	0	0	0	101	62	0	0	62	39	(177)
2005	117	0	0	0	117	65	0	0	65	52	(129)
2006	135	0	0	0	135	67	0	0	67	68	(68)
2007	153	0	0	0	153	68	0	0	68	85	6
2008	172	0	0	0	172	70	0	0	70	103	94
2009	192	0	0	0	192	71	0	0	71	121	195
2010	213	0	0	0	213	73	0	0	73	140	309
2011	235	0	0	0	235	75	0	0	75	160	437
2012	258	0	0	0	258	76	0	0	76	181	578
2013	281	0	0	0	281	78	0	0	78	203	732
2014	306	0	0	0	306	80	0	0	80	226	900
2015	331	0	0	0	331	82	0	0	82	249	1,082
2016	358	0	0	0	358	84	0	0	84	274	1,277
2017	385	0	0	0	385	86	0	0	86	300	1,485
2018	414	0	0	0	414	88	0	0	88	327	1,707
2019	444	0	0	0	444	90	0	0	90	355	1,942
2020	475	0	0	0	475	92	0	0	92	384	2,191
NOMINAL	4,759	0	0	0	4,759	1,704	0	0	1,704	3,055	
NPV	3,596	0	0	0	3,596	1,405	0	0	1,405	2,191	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 2.56

RATE IMPACT TEST
PROGRAM: HEPP

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS $(000)	UTILITY PROGRAM COSTS $(000)	INCENTIVES $(000)	REVENUE LOSSES $(000)	OTHER COSTS $(000)	TOTAL COSTS $(000)	AVOIDED GEN UNIT & FUEL BENEFITS $(000)	AVOIDED T & D BENEFITS $(000)	REVENUE GAINS $(000)	OTHER BENEFITS $(000)	TOTAL BENEFITS $(000)	NET BENEFITS TO ALL CUSTOMERS $(000)	CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	304	0	32	0	336	8	0	0	0	8	(327)	(327)
2002	0	59	0	71	0	130	19	0	0	0	19	(111)	(436)
2003	0	62	0	85	0	147	22	0	0	0	22	(125)	(555)
2004	0	0	0	101	0	101	49	6	0	0	55	(46)	(598)
2005	0	0	0	117	0	117	54	7	0	0	60	(57)	(650)
2006	0	0	0	135	0	135	59	7	0	0	66	(69)	(712)
2007	0	0	0	153	0	153	65	7	0	0	71	(82)	(783)
2008	0	0	0	172	0	172	70	7	0	0	77	(95)	(864)
2009	0	0	0	192	0	192	76	7	0	0	83	(109)	(955)
2010	0	0	0	213	0	213	82	7	0	0	90	(123)	(1,056)
2011	0	0	0	235	0	235	89	8	0	0	97	(138)	(1,166)
2012	0	0	0	258	0	258	96	8	0	0	104	(154)	(1,286)
2013	0	0	0	281	0	281	103	8	0	0	111	(170)	(1,416)
2014	0	0	0	306	0	306	110	8	0	0	118	(187)	(1,555)
2015	0	0	0	331	0	331	118	8	0	0	126	(205)	(1,704)
2016	0	0	0	358	0	358	126	8	0	0	135	(223)	(1,863)
2017	0	0	0	385	0	385	134	9	0	0	143	(242)	(2,031)
2018	0	0	0	414	0	414	143	9	0	0	152	(262)	(2,209)
2019	0	0	0	444	0	444	152	9	0	0	161	(283)	(2,397)
2020	0	0	0	475	0	475	162	9	0	0	171	(304)	(2,594)
NOMINAL	0	425	0	4,759	0	5,184	1,738	132	0	0	1,870	(3,314)	
NPV	0	421	0	3,596	0	4,017	1,320	102	0	0	1,423	(2,594)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.35

PROGRAM: RRefri

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.21	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.23	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	1,816.0	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	1,707.0	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	61.16	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	0.00	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	5.196	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.3	%
(3) CUSTOMER DEMAND CHARGE PER KW	0.00	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: RRefri

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	(5) AVOIDED MARGINAL FUEL COST (C/KWH)	(6) INCREASED MARGINAL FUEL COST (C/KWH)	(7) REPLACEMENT FUEL COST (C/KWH)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM KWH EFFECTIVENESS FACTOR
2001	4969	4969	1.69	1.69	1.69	1.69	1	1
2002	5908	5908	1.74	1.73	1.73	1.74	1	1
2003	6878	6878	1.78	1.78	1.78	1.78	1	1
2004	7880	7880	1.83	1.83	1.83	1.83	1	1
2005	8913	8913	1.88	1.87	1.87	1.88	1	1
2006	9946	9946	1.93	1.92	1.92	1.93	1	1
2007	10979	10979	1.98	1.97	1.97	1.98	1	1
2008	12012	12012	2.03	2.02	2.02	2.03	1	1
2009	13045	13045	2.08	2.08	2.08	2.08	1	1
2010	14078	14078	2.14	2.13	2.13	2.14	1	1
2011	15111	15111	2.19	2.18	2.18	2.19	1	1
2012	16144	16144	2.25	2.24	2.24	2.25	1	1
2013	17177	17177	2.31	2.30	2.30	2.31	1	1
2014	18210	18210	2.37	2.36	2.36	2.37	1	1
2015	19243	19243	2.43	2.42	2.42	2.43	1	1
2016	20276	20276	2.49	2.48	2.48	2.49	1	1
2017	21309	21309	2.56	2.55	2.55	2.56	1	1
2018	22342	22342	2.62	2.61	2.61	2.62	1	1
2019	23375	23375	2.69	2.68	2.68	2.69	1	1
2020	24408	24408	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

<< COST DATA FOR CONSTRUCTION OF PLANT >>

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1995	-9	0.0%	0.0%
1996	-8	0.0%	0.0%
1997	-7	0.0%	0.0%
1998	-6	0.0%	0.0%
1999	-5	0.0%	0.0%
2000	-4	0.0%	0.0%
2001	-3	0.0%	0.0%
2002	-2	2.3%	25.0%
2003	-1	2.3%	75.0%
2004	0	2.3%	0.0%

TEMP DATA/NOT USED BY PROGRAM

CT	CC
0.0%	0.0%
0.0%	0.0%
0.0%	20.3%
55.3%	50.2%
44.7%	29.5%
0.0%	0.0%
1	1

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: RRefri

* UNIT SIZE OF AVOIDED GENERATION UNIT = 1,799 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $680

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	47	13,393	10	27	278	245	0	117
2005	0.0713	49	13,393	10	28	285	252	0	120
2006	0.0730	50	13,393	10	29	293	258	0	123
2007	0.0747	51	13,393	10	29	300	265	0	126
2008	0.0764	52	13,393	10	30	308	272	0	129
2009	0.0781	53	13,393	11	31	316	279	0	132
2010	0.0799	54	13,393	11	31	325	286	0	135
2011	0.0818	56	13,393	11	32	333	293	0	139
2012	0.0836	57	13,393	11	33	342	301	0	142
2013	0.0856	58	13,393	12	34	351	309	0	145
2014	0.0875	60	13,393	12	34	360	317	0	149
2015	0.0895	61	13,393	12	35	369	325	0	152
2016	0.0916	62	13,393	12	36	379	334	0	156
2017	0.0937	64	13,393	13	37	388	342	0	160
2018	0.0959	65	13,393	13	38	399	351	0	163
2019	0.0981	67	13,393	13	39	409	360	0	167
2020	0.1003	68	13,393	14	40	420	370	0	171
NOMINAL		973	227,682	195	563	5,854	5,158	0	2,427
NPV		753		151	436	4,523	3,986	0	1,878

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: RRefri

6878

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $12

* INSERVICE COSTS OF AVOIDED DIST. (000) = $85

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	76
2002	0	0	0	0	0	0	171
2003	0	0	0	0	0	0	207
2004	1	5	6	6	22	28	245
2005	1	5	6	6	23	29	286
2006	1	5	6	6	23	29	329
2007	1	5	6	6	24	30	375
2008	1	6	6	6	24	31	422
2009	1	6	7	7	25	31	472
2010	1	6	7	7	25	32	524
2011	1	6	7	7	26	33	579
2012	1	6	7	7	26	34	636
2013	1	6	7	7	27	34	696
2014	1	6	7	7	28	35	758
2015	1	6	8	8	28	36	823
2016	1	7	8	8	29	37	891
2017	1	7	8	8	30	38	962
2018	1	7	8	8	30	38	1,036
2019	1	7	8	8	31	39	1,114
2020	1	7	8	8	32	40	1,194
NOMINAL	18	103	121	121	452	573	11,796
NPV	14	80	93	94	350	444	8,902

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: RRefri

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	4,512	76	0	0	76	76
2002	9,876	171	0	0	171	171
2003	11,609	207	0	0	207	207
2004	13,400	245	0	0	245	245
2005	15,248	286	0	0	286	286
2006	17,124	329	0	0	329	329
2007	18,999	375	0	0	375	375
2008	20,875	422	0	0	422	422
2009	22,751	472	0	0	472	472
2010	24,627	524	0	0	524	524
2011	26,503	579	0	0	579	579
2012	28,379	636	0	0	636	636
2013	30,255	696	0	0	696	696
2014	32,131	758	0	0	758	758
2015	34,007	823	0	0	823	823
2016	35,882	891	0	0	891	891
2017	37,758	962	0	0	962	962
2018	39,634	1,036	0	0	1,036	1,036
2019	41,510	1,114	0	0	1,114	1,114
2020	43,386	1,194	0	0	1,194	1,194
NOMINAL	508,466	11,796	0	0	11,796	11,796
NPV		8,902	0	0	8,902	8,902

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: RRefri

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ---------->						<---------- PARTICIPATING CUSTOMER COSTS & BENEFITS---------->										
YEAR	UTIL NONREC. COSTS $(000)	UTIL RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL NONREC. REBATES $(000)	UTIL RECUR. REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT REVENUE INC. IN BILL $(000)
2001	304	0	304	0	0	0	0	0	0	4,241	72	220	292	0	0	0	0
2002	59	0	59	0	0	0	0	0	0	9,284	162	493	655	0	0	0	0
2003	62	0	62	0	0	0	0	0	0	10,913	195	593	789	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	12,596	231	701	932	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	14,333	270	816	1,086	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	16,096	311	937	1,248	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	17,859	354	1,064	1,418	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	19,623	399	1,196	1,595	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	21,386	447	1,333	1,780	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	23,149	496	1,476	1,972	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	24,913	548	1,625	2,173	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	26,676	602	1,780	2,382	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	28,439	658	1,941	2,599	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	30,203	717	2,109	2,826	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	31,966	779	2,284	3,062	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	33,729	843	2,465	3,308	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	35,493	910	2,654	3,564	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	37,256	980	2,849	3,830	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	39,019	1,053	3,053	4,106	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	40,783	1,129	3,264	4,394	0	0	0	0
NOMINAL	425	0	425	0	0	0	0	0	0	477,958	11,157	32,853	44,010	0	0	0	0
NPV	421	0	421	0	0	0	0	0	0		8,420	24,835	33,255		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: RRefri

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	304	0	0	304	0	0	76	0	76	(228)	(228)
2002	0	59	0	0	59	0	0	171	0	171	112	(118)
2003	0	62	0	0	62	0	0	207	0	207	144	20
2004	0	0	0	0	0	117	34	245	0	396	396	390
2005	0	0	0	0	0	120	35	286	0	440	440	792
2006	0	0	0	0	0	123	35	329	0	488	488	1,227
2007	0	0	0	0	0	126	36	375	0	537	537	1,696
2008	0	0	0	0	0	129	37	422	0	588	588	2,198
2009	0	0	0	0	0	132	38	472	0	642	642	2,733
2010	0	0	0	0	0	135	39	524	0	698	698	3,302
2011	0	0	0	0	0	139	40	579	0	757	757	3,905
2012	0	0	0	0	0	142	41	636	0	818	818	4,543
2013	0	0	0	0	0	145	42	696	0	882	882	5,214
2014	0	0	0	0	0	149	42	758	0	949	949	5,921
2015	0	0	0	0	0	152	43	823	0	1,019	1,019	6,662
2016	0	0	0	0	0	156	44	891	0	1,092	1,092	7,438
2017	0	0	0	0	0	160	45	962	0	1,167	1,167	8,249
2018	0	0	0	0	0	163	47	1,036	0	1,246	1,246	9,096
2019	0	0	0	0	0	167	48	1,114	0	1,328	1,328	9,978
2020	0	0	0	0	0	171	49	1,194	0	1,414	1,414	10,896
NOMINAL	0	425	0	0	425	2,427	694	11,796	0	14,917	14,493	
NPV	0	421	0	0	421	1,878	537	8,902	0	11,317	10,896	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 26.90

PARTICIPANT COSTS AND BENEFITS
PROGRAM: RRefri

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	292	0	0	0	292	0	0	0	0	292	292
2002	655	0	0	0	655	0	0	0	0	655	933
2003	789	0	0	0	789	0	0	0	0	789	1,687
2004	932	0	0	0	932	0	0	0	0	932	2,557
2005	1,086	0	0	0	1,086	0	0	0	0	1,086	3,549
2006	1,248	0	0	0	1,248	0	0	0	0	1,248	4,663
2007	1,418	0	0	0	1,418	0	0	0	0	1,418	5,900
2008	1,595	0	0	0	1,595	0	0	0	0	1,595	7,260
2009	1,780	0	0	0	1,780	0	0	0	0	1,780	8,744
2010	1,972	0	0	0	1,972	0	0	0	0	1,972	10,351
2011	2,173	0	0	0	2,173	0	0	0	0	2,173	12,082
2012	2,382	0	0	0	2,382	0	0	0	0	2,382	13,936
2013	2,599	0	0	0	2,599	0	0	0	0	2,599	15,915
2014	2,826	0	0	0	2,826	0	0	0	0	2,826	18,018
2015	3,062	0	0	0	3,062	0	0	0	0	3,062	20,245
2016	3,308	0	0	0	3,308	0	0	0	0	3,308	22,597
2017	3,564	0	0	0	3,564	0	0	0	0	3,564	25,074
2018	3,830	0	0	0	3,830	0	0	0	0	3,830	27,675
2019	4,106	0	0	0	4,106	0	0	0	0	4,106	30,402
2020	4,394	0	0	0	4,394	0	0	0	0	4,394	33,255
NOMINAL	44,010	0	0	0	44,010	0	0	0	0	44,010	
NPV	33,255	0	0	0	33,255	0	0	0	0	33,255	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 1.00

RATE IMPACT TEST
PROGRAM: RRefri

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	304	0	292	0	596	76	0	0	0	76	(520)	(520)
2002	0	59	0	655	0	714	171	0	0	0	171	(543)	(1,051)
2003	0	62	0	789	0	851	207	0	0	0	207	(644)	(1,667)
2004	0	0	0	932	0	932	362	34	0	0	396	(536)	(2,167)
2005	0	0	0	1,086	0	1,086	406	35	0	0	440	(645)	(2,757)
2006	0	0	0	1,248	0	1,248	452	35	0	0	488	(761)	(3,436)
2007	0	0	0	1,418	0	1,418	501	36	0	0	537	(881)	(4,204)
2008	0	0	0	1,595	0	1,595	551	37	0	0	588	(1,007)	(5,063)
2009	0	0	0	1,780	0	1,780	604	38	0	0	642	(1,137)	(6,011)
2010	0	0	0	1,972	0	1,972	660	39	0	0	698	(1,274)	(7,049)
2011	0	0	0	2,173	0	2,173	718	40	0	0	757	(1,415)	(8,176)
2012	0	0	0	2,382	0	2,382	778	41	0	0	818	(1,563)	(9,393)
2013	0	0	0	2,599	0	2,599	841	42	0	0	882	(1,717)	(10,700)
2014	0	0	0	2,826	0	2,826	907	42	0	0	949	(1,877)	(12,097)
2015	0	0	0	3,062	0	3,062	975	43	0	0	1,019	(2,043)	(13,583)
2016	0	0	0	3,308	0	3,308	1,047	44	0	0	1,092	(2,216)	(15,159)
2017	0	0	0	3,564	0	3,564	1,122	45	0	0	1,167	(2,396)	(16,825)
2018	0	0	0	3,830	0	3,830	1,200	47	0	0	1,246	(2,583)	(18,580)
2019	0	0	0	4,106	0	4,106	1,281	48	0	0	1,328	(2,778)	(20,424)
2020	0	0	0	4,394	0	4,394	1,365	49	0	0	1,414	(2,980)	(22,359)
NOMINAL	0	425	0	44,010	0	44,435	14,223	694	0	0	14,917	(29,518)	
NPV	0	421	0	33,255	0	33,675	10,779	537	0	0	11,317	(22,359)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.34

PROGRAM: RFreezer

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.21	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.23	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	1,655.5	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	1,556.2	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	61.16	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	0.00	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	5.196	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.3	%
(3) CUSTOMER DEMAND CHARGE PER KW	0.00	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: RFreezer

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	AVOIDED MARGINAL FUEL COST (C/KWH)	INCREASED MARGINAL FUEL COST (C/KWH)	REPLACEMENT FUEL COST (C/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWH EFFECTIVENESS FACTOR
2001	4969	4969	1.69	1.69	1.69	1.69	1	1
2002	5908	5908	1.74	1.73	1.73	1.74	1	1
2003	6878	6878	1.78	1.78	1.78	1.78	1	1
2004	7880	7880	1.83	1.83	1.83	1.83	1	1
2005	8913	8913	1.88	1.87	1.87	1.88	1	1
2006	9946	9946	1.93	1.92	1.92	1.93	1	1
2007	10979	10979	1.98	1.97	1.97	1.98	1	1
2008	12012	12012	2.03	2.02	2.02	2.03	1	1
2009	13045	13045	2.08	2.08	2.08	2.08	1	1
2010	14078	14078	2.14	2.13	2.13	2.14	1	1
2011	15111	15111	2.19	2.18	2.18	2.19	1	1
2012	16144	16144	2.25	2.24	2.24	2.25	1	1
2013	17177	17177	2.31	2.30	2.30	2.31	1	1
2014	18210	18210	2.37	2.36	2.36	2.37	1	1
2015	19243	19243	2.43	2.42	2.42	2.43	1	1
2016	20276	20276	2.49	2.48	2.48	2.49	1	1
2017	21309	21309	2.56	2.55	2.55	2.56	1	1
2018	22342	22342	2.62	2.61	2.61	2.62	1	1
2019	23375	23375	2.69	2.68	2.68	2.69	1	1
2020	24408	24408	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: RFreezer

* UNIT SIZE OF AVOIDED GENERATION UNIT = 1,799 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $680

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	47	13,393	10	27	278	245	0	117
2005	0.0713	49	13,393	10	28	285	252	0	120
2006	0.0730	50	13,393	10	29	293	258	0	123
2007	0.0747	51	13,393	10	29	300	265	0	126
2008	0.0764	52	13,393	10	30	308	272	0	129
2009	0.0781	53	13,393	11	31	316	279	0	132
2010	0.0799	54	13,393	11	31	325	286	0	135
2011	0.0818	56	13,393	11	32	333	293	0	139
2012	0.0836	57	13,393	11	33	342	301	0	142
2013	0.0856	58	13,393	12	34	351	309	0	145
2014	0.0875	60	13,393	12	34	360	317	0	149
2015	0.0895	61	13,393	12	35	369	325	0	152
2016	0.0916	62	13,393	12	36	379	334	0	156
2017	0.0937	64	13,393	13	37	388	342	0	160
2018	0.0959	65	13,393	13	38	399	351	0	163
2019	0.0981	67	13,393	13	39	409	360	0	167
2020	0.1003	68	13,393	14	40	420	370	0	171
NOMINAL		973	227,682	195	563	5,854	5,158	0	2,427
NPV		753		151	436	4,523	3,986	0	1,878

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: RFreezer

6878

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $12
* INSERVICE COSTS OF AVOIDED DIST. (000) = $85

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	70
2002	0	0	0	0	0	0	156
2003	0	0	0	0	0	0	188
2004	1	5	6	6	22	28	223
2005	1	5	6	6	23	29	260
2006	1	5	6	6	23	29	300
2007	1	5	6	6	24	30	341
2008	1	6	6	6	24	31	385
2009	1	6	7	7	25	31	430
2010	1	6	7	7	25	32	478
2011	1	6	7	7	26	33	528
2012	1	6	7	7	26	34	580
2013	1	6	7	7	27	34	634
2014	1	6	7	7	28	35	691
2015	1	6	8	8	28	36	750
2016	1	7	8	8	29	37	812
2017	1	7	8	8	30	38	877
2018	1	7	8	8	30	38	945
2019	1	7	8	8	31	39	1,015
2020	1	7	8	8	32	40	1,089
NOMINAL	18	103	121	121	452	573	10,754
NPV	14	80	93	94	350	444	8,115

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: RFreezer

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	4,113	70	0	0	70	70
2002	9,004	156	0	0	156	156
2003	10,584	188	0	0	188	188
2004	12,216	223	0	0	223	223
2005	13,901	260	0	0	260	260
2006	15,611	300	0	0	300	300
2007	17,321	341	0	0	341	341
2008	19,031	385	0	0	385	385
2009	20,741	430	0	0	430	430
2010	22,451	478	0	0	478	478
2011	24,162	528	0	0	528	528
2012	25,872	580	0	0	580	580
2013	27,582	634	0	0	634	634
2014	29,292	691	0	0	691	691
2015	31,002	750	0	0	750	750
2016	32,712	812	0	0	812	812
2017	34,423	877	0	0	877	877
2018	36,133	945	0	0	945	945
2019	37,843	1,015	0	0	1,015	1,015
2020	39,553	1,089	0	0	1,089	1,089
NOMINAL	463,547	10,754	0	0	10,754	10,754
NPV		8,115	0	0	8,115	8,115

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: RFreezer

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ------>						<------ PARTICIPATING CUSTOMER COSTS & BENEFITS------>										
YEAR	UTIL. NONREC. COSTS $(000)	UTIL. RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL. NONREC. REBATES $(000)	UTIL. RECUR. REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	304	0	304	0	0	0	0	0	0	3,866	66	201	267	0	0	0	0
2002	59	0	59	0	0	0	0	0	0	8,463	148	450	598	0	0	0	0
2003	62	0	62	0	0	0	0	0	0	9,949	178	541	719	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	11,483	211	639	850	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	13,067	246	744	990	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	14,674	284	854	1,138	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	16,282	323	970	1,293	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	17,889	364	1,090	1,454	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	19,497	407	1,215	1,622	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	21,104	452	1,346	1,798	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	22,712	499	1,481	1,981	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	24,320	548	1,623	2,171	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	25,927	600	1,770	2,370	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	27,535	654	1,923	2,577	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	29,142	710	2,082	2,792	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	30,750	769	2,247	3,016	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	32,357	830	2,419	3,249	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	33,965	894	2,598	3,491	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	35,572	960	2,783	3,743	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	37,180	1,030	2,976	4,006	0	0	0	0
NOMINAL	425	0	425	0	0	0	0	0	0	435,734	10,172	29,951	40,122	0	0	0	0
NPV	421	0	421	0	0	0	0	0	0		7,676	22,641	30,317		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: RFreezer

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	304	0	0	304	0	0	70	0	70	(234)	(234)
2002	0	59	0	0	59	0	0	156	0	156	97	(139)
2003	0	62	0	0	62	0	0	188	0	188	126	(19)
2004	0	0	0	0	0	117	34	223	0	374	374	331
2005	0	0	0	0	0	120	35	260	0	415	415	710
2006	0	0	0	0	0	123	35	300	0	458	458	1,119
2007	0	0	0	0	0	126	36	341	0	504	504	1,559
2008	0	0	0	0	0	129	37	385	0	551	551	2,029
2009	0	0	0	0	0	132	38	430	0	600	600	2,529
2010	0	0	0	0	0	135	39	478	0	652	652	3,061
2011	0	0	0	0	0	139	40	528	0	706	706	3,623
2012	0	0	0	0	0	142	41	580	0	762	762	4,217
2013	0	0	0	0	0	145	42	634	0	821	821	4,842
2014	0	0	0	0	0	149	42	691	0	882	882	5,498
2015	0	0	0	0	0	152	43	750	0	946	946	6,186
2016	0	0	0	0	0	156	44	812	0	1,013	1,013	6,907
2017	0	0	0	0	0	160	45	877	0	1,082	1,082	7,659
2018	0	0	0	0	0	163	47	945	0	1,155	1,155	8,443
2019	0	0	0	0	0	167	48	1,015	0	1,230	1,230	9,260
2020	0	0	0	0	0	171	49	1,089	0	1,309	1,309	10,110
NOMINAL	0	425	0	0	425	2,427	694	10,754	0	13,875	13,451	
NPV	0	421	0	0	421	1,878	537	8,115	0	10,530	10,110	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 25.03

PARTICIPANT COSTS AND BENEFITS
PROGRAM: RFreezer

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	267	0	0	0	267	0	0	0	0	267	267
2002	598	0	0	0	598	0	0	0	0	598	851
2003	719	0	0	0	719	0	0	0	0	719	1,538
2004	850	0	0	0	850	0	0	0	0	850	2,332
2005	990	0	0	0	990	0	0	0	0	990	3,235
2006	1,138	0	0	0	1,138	0	0	0	0	1,138	4,251
2007	1,293	0	0	0	1,293	0	0	0	0	1,293	5,379
2008	1,454	0	0	0	1,454	0	0	0	0	1,454	6,619
2009	1,622	0	0	0	1,622	0	0	0	0	1,622	7,971
2010	1,798	0	0	0	1,798	0	0	0	0	1,798	9,436
2011	1,981	0	0	0	1,981	0	0	0	0	1,981	11,014
2012	2,171	0	0	0	2,171	0	0	0	0	2,171	12,705
2013	2,370	0	0	0	2,370	0	0	0	0	2,370	14,509
2014	2,577	0	0	0	2,577	0	0	0	0	2,577	16,426
2015	2,792	0	0	0	2,792	0	0	0	0	2,792	18,456
2016	3,016	0	0	0	3,016	0	0	0	0	3,016	20,601
2017	3,249	0	0	0	3,249	0	0	0	0	3,249	22,859
2018	3,491	0	0	0	3,491	0	0	0	0	3,491	25,230
2019	3,743	0	0	0	3,743	0	0	0	0	3,743	27,717
2020	4,006	0	0	0	4,006	0	0	0	0	4,006	30,317
NOMINAL	40,122	0	0	0	40,122	0	0	0	0	40,122	
NPV	30,317	0	0	0	30,317	0	0	0	0	30,317	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 1.00

RATE IMPACT TEST
PROGRAM: RFreezer

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	304	0	267	0	571	70	0	0	0	70	(501)	(501)
2002	0	59	0	598	0	656	156	0	0	0	156	(500)	(990)
2003	0	62	0	719	0	781	188	0	0	0	188	(593)	(1,556)
2004	0	0	0	850	0	850	340	34	0	0	374	(475)	(2,001)
2005	0	0	0	990	0	990	381	35	0	0	415	(575)	(2,525)
2006	0	0	0	1,138	0	1,138	423	35	0	0	458	(680)	(3,132)
2007	0	0	0	1,293	0	1,293	468	36	0	0	504	(789)	(3,820)
2008	0	0	0	1,454	0	1,454	514	37	0	0	551	(903)	(4,590)
2009	0	0	0	1,622	0	1,622	563	38	0	0	600	(1,022)	(5,442)
2010	0	0	0	1,798	0	1,798	613	39	0	0	652	(1,146)	(6,376)
2011	0	0	0	1,981	0	1,981	666	40	0	0	706	(1,275)	(7,391)
2012	0	0	0	2,171	0	2,171	722	41	0	0	762	(1,409)	(8,488)
2013	0	0	0	2,370	0	2,370	780	42	0	0	821	(1,549)	(9,667)
2014	0	0	0	2,577	0	2,577	840	42	0	0	882	(1,694)	(10,928)
2015	0	0	0	2,792	0	2,792	903	43	0	0	946	(1,846)	(12,270)
2016	0	0	0	3,016	0	3,016	968	44	0	0	1,013	(2,003)	(13,694)
2017	0	0	0	3,249	0	3,249	1,037	45	0	0	1,082	(2,167)	(15,200)
2018	0	0	0	3,491	0	3,491	1,108	47	0	0	1,155	(2,337)	(16,787)
2019	0	0	0	3,743	0	3,743	1,182	48	0	0	1,230	(2,513)	(18,456)
2020	0	0	0	4,006	0	4,006	1,260	49	0	0	1,309	(2,697)	(20,207)
NOMINAL	0	425	0	40,122	0	40,547	13,181	694	0	0	13,875	(26,672)	
NPV	0	421	0	30,317	0	30,737	9,993	537	0	0	10,530	(20,207)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.34

PROGRAM: JHP

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.18	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.20	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	685.1	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	644.0	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	52.33	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	0.00	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	5.196	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.3	%
(3) CUSTOMER DEMAND CHARGE PER KW	0.00	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: JHP

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	(5) AVOIDED MARGINAL FUEL COST (C/KWH)	(6) INCREASED MARGINAL FUEL COST (C/KWH)	(7) REPLACEMENT FUEL COST (C/KWH)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM KWH EFFECTIVENESS FACTOR
2001	900	900	1.69	1.69	1.69	1.69	1	1
2002	1050	1050	1.74	1.73	1.73	1.74	1	1
2003	1200	1200	1.78	1.78	1.78	1.78	1	1
2004	1350	1350	1.83	1.83	1.83	1.83	1	1
2005	1500	1500	1.88	1.87	1.87	1.88	1	1
2006	1650	1650	1.93	1.92	1.92	1.93	1	1
2007	1800	1800	1.98	1.97	1.97	1.98	1	1
2008	1950	1950	2.03	2.02	2.02	2.03	1	1
2009	2100	2100	2.08	2.08	2.08	2.08	1	1
2010	2250	2250	2.14	2.13	2.13	2.14	1	1
2011	2400	2400	2.19	2.18	2.18	2.19	1	1
2012	2550	2550	2.25	2.24	2.24	2.25	1	1
2013	2700	2700	2.31	2.30	2.30	2.31	1	1
2014	2850	2850	2.37	2.36	2.36	2.37	1	1
2015	3000	3000	2.43	2.42	2.42	2.43	1	1
2016	3150	3150	2.49	2.48	2.48	2.49	1	1
2017	3300	3300	2.56	2.55	2.55	2.56	1	1
2018	3450	3450	2.62	2.61	2.61	2.62	1	1
2019	3600	3600	2.69	2.68	2.68	2.69	1	1
2020	3750	3750	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: JHP

* UNIT SIZE OF AVOIDED GENERATION UNIT = 264 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $100

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	7	1,967	1	4	41	36	0	17
2005	0.0713	7	1,967	1	4	42	37	0	18
2006	0.0730	7	1,967	1	4	43	38	0	18
2007	0.0747	7	1,967	1	4	44	39	0	19
2008	0.0764	8	1,967	2	4	45	40	0	19
2009	0.0781	8	1,967	2	5	46	41	0	19
2010	0.0799	8	1,967	2	5	48	42	0	20
2011	0.0818	8	1,967	2	5	49	43	0	20
2012	0.0836	8	1,967	2	5	50	44	0	21
2013	0.0856	9	1,967	2	5	51	45	0	21
2014	0.0875	9	1,967	2	5	53	47	0	22
2015	0.0895	9	1,967	2	5	54	48	0	22
2016	0.0916	9	1,967	2	5	56	49	0	23
2017	0.0937	9	1,967	2	5	57	50	0	23
2018	0.0959	10	1,967	2	6	59	52	0	24
2019	0.0981	10	1,967	2	6	60	53	0	25
2020	0.1003	10	1,967	2	6	62	54	0	25
NOMINAL		143	33,434	29	83	860	757	0	356
NPV		111		22	64	664	585	0	276

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: JHP

1200

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $2

* INSERVICE COSTS OF AVOIDED DIST. (000) = $13

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	5
2002	0	0	0	0	0	0	12
2003	0	0	0	0	0	0	14
2004	0	1	1	1	3	4	16
2005	0	1	1	1	3	4	18
2006	0	1	1	1	3	4	21
2007	0	1	1	1	4	4	23
2008	0	1	1	1	4	5	26
2009	0	1	1	1	4	5	29
2010	0	1	1	1	4	5	32
2011	0	1	1	1	4	5	35
2012	0	1	1	1	4	5	38
2013	0	1	1	1	4	5	41
2014	0	1	1	1	4	5	45
2015	0	1	1	1	4	5	49
2016	0	1	1	1	4	5	52
2017	0	1	1	1	4	6	56
2018	0	1	1	1	5	6	60
2019	0	1	1	1	5	6	65
2020	0	1	1	1	5	6	69
NOMINAL	3	15	18	18	68	86	706
NPV	2	12	14	14	52	66	535

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: JHP

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	308	5	0	0	5	5
2002	668	12	0	0	12	12
2003	771	14	0	0	14	14
2004	874	16	0	0	16	16
2005	976	18	0	0	18	18
2006	1,079	21	0	0	21	21
2007	1,182	23	0	0	23	23
2008	1,285	26	0	0	26	26
2009	1,387	29	0	0	29	29
2010	1,490	32	0	0	32	32
2011	1,593	35	0	0	35	35
2012	1,696	38	0	0	38	38
2013	1,798	41	0	0	41	41
2014	1,901	45	0	0	45	45
2015	2,004	49	0	0	49	49
2016	2,107	52	0	0	52	52
2017	2,209	56	0	0	56	56
2018	2,312	60	0	0	60	60
2019	2,415	65	0	0	65	65
2020	2,518	69	0	0	69	69
NOMINAL	30,573	706	0	0	706	706
NPV		535	0	0	535	535

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: JHP

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ------>						<------ PARTICIPATING CUSTOMER COSTS & BENEFITS------>										
YEAR	UTIL NONREC. COSTS $(000)	UTIL RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL NONREC REBATES $(000)	UTIL RECUR REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	47	0	47	0	0	0	0	0	0	290	5	15	20	0	0	0	0
2002	8	0	8	0	0	0	0	0	0	628	11	33	44	0	0	0	0
2003	8	0	8	0	0	0	0	0	0	725	13	39	52	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	821	15	46	61	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	918	17	52	70	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	1,014	20	59	79	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	1,111	22	66	88	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	1,208	25	74	98	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	1,304	27	81	109	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	1,401	30	89	119	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	1,497	33	98	131	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	1,594	36	106	142	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	1,691	39	115	155	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	1,787	42	125	167	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	1,884	46	135	180	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	1,980	49	145	194	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	2,077	53	155	209	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	2,174	57	166	223	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	2,270	61	178	239	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	2,367	66	189	255	0	0	0	0
NOMINAL	63	0	63	0	0	0	0	0	0	28,739	668	1,967	2,635	0	0	0	0
NPV	63	0	63	0	0	0	0	0	0		506	1,493	1,999		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: JHP

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	47	0	0	47	0	0	5	0	5	(42)	(42)
2002	0	8	0	0	8	0	0	12	0	12	4	(38)
2003	0	8	0	0	8	0	0	14	0	14	5	(33)
2004	0	0	0	0	0	17	5	16	0	38	38	3
2005	0	0	0	0	0	18	5	18	0	41	41	40
2006	0	0	0	0	0	18	5	21	0	44	44	79
2007	0	0	0	0	0	19	5	23	0	47	47	121
2008	0	0	0	0	0	19	6	26	0	50	50	164
2009	0	0	0	0	0	19	6	29	0	54	54	209
2010	0	0	0	0	0	20	6	32	0	57	57	255
2011	0	0	0	0	0	20	6	35	0	61	61	304
2012	0	0	0	0	0	21	6	38	0	65	65	355
2013	0	0	0	0	0	21	6	41	0	69	69	407
2014	0	0	0	0	0	22	6	45	0	73	73	461
2015	0	0	0	0	0	22	6	49	0	77	77	518
2016	0	0	0	0	0	23	7	52	0	82	82	576
2017	0	0	0	0	0	23	7	56	0	87	87	636
2018	0	0	0	0	0	24	7	60	0	91	91	698
2019	0	0	0	0	0	25	7	65	0	96	96	762
2020	0	0	0	0	0	25	7	69	0	102	102	828
NOMINAL	0	63	0	0	63	356	104	706	0	1,166	1,103	
NPV	0	63	0	0	63	276	80	535	0	891	828	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 14.19

PARTICIPANT COSTS AND BENEFITS
PROGRAM: JHP

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	20	0	0	0	20	0	0	0	0	20	20
2002	44	0	0	0	44	0	0	0	0	44	63
2003	52	0	0	0	52	0	0	0	0	52	113
2004	61	0	0	0	61	0	0	0	0	61	170
2005	70	0	0	0	70	0	0	0	0	70	234
2006	79	0	0	0	79	0	0	0	0	79	304
2007	88	0	0	0	88	0	0	0	0	88	381
2008	98	0	0	0	98	0	0	0	0	98	464
2009	109	0	0	0	109	0	0	0	0	109	555
2010	119	0	0	0	119	0	0	0	0	119	652
2011	131	0	0	0	131	0	0	0	0	131	756
2012	142	0	0	0	142	0	0	0	0	142	867
2013	155	0	0	0	155	0	0	0	0	155	985
2014	167	0	0	0	167	0	0	0	0	167	1,109
2015	180	0	0	0	180	0	0	0	0	180	1,240
2016	194	0	0	0	194	0	0	0	0	194	1,378
2017	209	0	0	0	209	0	0	0	0	209	1,523
2018	223	0	0	0	223	0	0	0	0	223	1,675
2019	239	0	0	0	239	0	0	0	0	239	1,834
2020	255	0	0	0	255	0	0	0	0	255	1,999
NOMINAL	2,635	0	0	0	2,635	0	0	0	0	2,635	
NPV	1,999	0	0	0	1,999	0	0	0	0	1,999	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 1.00

RATE IMPACT TEST
PROGRAM: JHP

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	47	0	20	0	67	5	0	0	0	5	(62)	(62)
2002	0	8	0	44	0	52	12	0	0	0	12	(41)	(102)
2003	0	8	0	52	0	61	14	0	0	0	14	(47)	(147)
2004	0	0	0	61	0	61	33	5	0	0	38	(23)	(168)
2005	0	0	0	70	0	70	36	5	0	0	41	(28)	(193)
2006	0	0	0	79	0	79	39	5	0	0	44	(35)	(224)
2007	0	0	0	88	0	88	42	5	0	0	47	(41)	(260)
2008	0	0	0	98	0	98	45	6	0	0	50	(48)	(301)
2009	0	0	0	109	0	109	48	6	0	0	54	(55)	(346)
2010	0	0	0	119	0	119	52	6	0	0	57	(62)	(397)
2011	0	0	0	131	0	131	55	6	0	0	61	(70)	(452)
2012	0	0	0	142	0	142	59	6	0	0	65	(77)	(512)
2013	0	0	0	155	0	155	63	6	0	0	69	(86)	(578)
2014	0	0	0	167	0	167	67	6	0	0	73	(94)	(648)
2015	0	0	0	180	0	180	71	6	0	0	77	(103)	(723)
2016	0	0	0	194	0	194	75	7	0	0	82	(112)	(803)
2017	0	0	0	209	0	209	80	7	0	0	87	(122)	(887)
2018	0	0	0	223	0	223	84	7	0	0	91	(132)	(977)
2019	0	0	0	239	0	239	89	7	0	0	96	(142)	(1,072)
2020	0	0	0	255	0	255	94	7	0	0	102	(153)	(1,171)
NOMINAL	0	63	0	2,635	0	2,698	1,062	104	0	0	1,166	(1,532)	
NPV	0	63	0	1,999	0	2,062	811	80	0	0	891	(1,171)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.43

PROGRAM: JHA

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.18	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.20	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	685.1	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	644.0	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	52.33	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	0.00	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	86	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	5.196	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.3	%
(3) CUSTOMER DEMAND CHARGE PER KW	0.00	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: JHA

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	AVOIDED MARGINAL FUEL COST (C/KWH)	INCREASED MARGINAL FUEL COST (C/KWH)	REPLACEMENT FUEL COST (C/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWH EFFECTIVENESS FACTOR
2001	1530	1530	1.69	1.69	1.69	1.69	1	1
2002	1785	1785	1.74	1.73	1.73	1.74	1	1
2003	2040	2040	1.78	1.78	1.78	1.78	1	1
2004	2295	2295	1.83	1.83	1.83	1.83	1	1
2005	2550	2550	1.88	1.87	1.87	1.88	1	1
2006	2805	2805	1.93	1.92	1.92	1.93	1	1
2007	3060	3060	1.98	1.97	1.97	1.98	1	1
2008	3315	3315	2.03	2.02	2.02	2.03	1	1
2009	3570	3570	2.08	2.08	2.08	2.08	1	1
2010	3825	3825	2.14	2.13	2.13	2.14	1	1
2011	4080	4080	2.19	2.18	2.18	2.19	1	1
2012	4335	4335	2.25	2.24	2.24	2.25	1	1
2013	4590	4590	2.31	2.30	2.30	2.31	1	1
2014	4845	4845	2.37	2.36	2.36	2.37	1	1
2015	5100	5100	2.43	2.42	2.42	2.43	1	1
2016	5355	5355	2.49	2.48	2.48	2.49	1	1
2017	5610	5610	2.56	2.55	2.55	2.56	1	1
2018	5865	5865	2.62	2.61	2.61	2.62	1	1
2019	3600	3600	2.69	2.68	2.68	2.69	1	1
2020	3750	3750	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: JHA

* UNIT SIZE OF AVOIDED GENERATION UNIT = 449 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $170

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	12	3,343	2	7	69	61	0	29
2005	0.0713	12	3,343	2	7	71	63	0	30
2006	0.0730	12	3,343	2	7	73	64	0	31
2007	0.0747	13	3,343	3	7	75	66	0	31
2008	0.0764	13	3,343	3	8	77	68	0	32
2009	0.0781	13	3,343	3	8	79	70	0	33
2010	0.0799	14	3,343	3	8	81	71	0	34
2011	0.0818	14	3,343	3	8	83	73	0	35
2012	0.0836	14	3,343	3	8	85	75	0	35
2013	0.0856	15	3,343	3	8	88	77	0	36
2014	0.0875	15	3,343	3	9	90	79	0	37
2015	0.0895	15	3,343	3	9	92	81	0	38
2016	0.0916	16	3,343	3	9	95	83	0	39
2017	0.0937	16	3,343	3	9	97	85	0	40
2018	0.0959	16	3,343	3	9	99	88	0	41
2019	0.0981	17	3,343	3	10	102	90	0	42
2020	0.1003	17	3,343	3	10	105	92	0	43
NOMINAL		243	56,838	49	141	1,461	1,288	0	606
NPV		188		38	109	1,129	995	0	469

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: JIIA

2040

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $3

* INSERVICE COSTS OF AVOIDED DIST. (000) = $22

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	9
2002	0	0	0	0	0	0	20
2003	0	0	0	0	0	0	23
2004	0	1	1	2	6	7	27
2005	0	1	2	2	6	7	31
2006	0	1	2	2	6	7	35
2007	0	1	2	2	6	8	40
2008	0	1	2	2	6	8	44
2009	0	1	2	2	6	8	49
2010	0	1	2	2	6	8	54
2011	0	1	2	2	7	8	59
2012	0	2	2	2	7	9	65
2013	0	2	2	2	7	9	70
2014	0	2	2	2	7	9	76
2015	0	2	2	2	7	9	82
2016	0	2	2	2	7	9	89
2017	0	2	2	2	8	10	96
2018	0	2	2	2	8	10	103
2019	0	2	2	2	8	10	87
2020	0	2	2	2	8	10	69
NOMINAL	4	26	31	31	115	146	1,128
NPV	3	20	24	24	89	113	863

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: JHA

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	524	9	0	0	9	9
2002	1,136	20	0	0	20	20
2003	1,310	23	0	0	23	23
2004	1,485	27	0	0	27	27
2005	1,660	31	0	0	31	31
2006	1,834	35	0	0	35	35
2007	2,009	40	0	0	40	40
2008	2,184	44	0	0	44	44
2009	2,358	49	0	0	49	49
2010	2,533	54	0	0	54	54
2011	2,708	59	0	0	59	59
2012	2,883	65	0	0	65	65
2013	3,057	70	0	0	70	70
2014	3,232	76	0	0	76	76
2015	3,407	82	0	0	82	82
2016	3,581	89	0	0	89	89
2017	3,756	96	0	0	96	96
2018	3,931	103	0	0	103	103
2019	3,242	87	0	0	87	87
2020	2,518	69	0	0	69	69
NOMINAL	49,348	1,128	0	0	1,128	1,128
NPV		863	0	0	863	863

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: JHA

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ------>						<------ PARTICIPATING CUSTOMER COSTS & BENEFITS ------>										
YEAR	UTIL NONREC. COSTS $(000)	UTIL RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL NONREC. REBATES $(000)	UTIL RECUR. REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	80	0	80	0	0	0	0	0	0	493	8	26	34	0	0	0	0
2002	14	0	14	0	0	0	0	0	0	1,067	19	57	75	0	0	0	0
2003	14	0	14	0	0	0	0	0	0	1,232	22	67	89	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	1,396	26	78	103	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	1,560	29	89	118	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	1,724	33	100	134	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	1,889	37	112	150	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	2,053	42	125	167	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	2,217	46	138	184	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	2,381	51	152	203	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	2,545	56	166	222	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	2,710	61	181	242	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	2,874	67	196	263	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	3,038	72	212	284	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	3,202	78	229	307	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	3,367	84	246	330	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	3,531	91	264	354	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	3,695	97	283	380	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	3,048	82	238	321	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	2,367	66	189	255	0	0	0	0
NOMINAL	108	0	108	0	0	0	0	0	0	46,387	1,067	3,148	4,215	0	0	0	0
NPV	107	0	107	0	0	0	0	0	0		816	2,410	3,226		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: JHA

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	80	0	0	80	0	0	9	0	9	(71)	(71)
2002	0	14	0	0	14	0	0	20	0	20	6	(65)
2003	0	14	0	0	14	0	0	23	0	23	9	(56)
2004	0	0	0	0	0	29	9	27	0	65	65	4
2005	0	0	0	0	0	30	9	31	0	70	70	68
2006	0	0	0	0	0	31	9	35	0	75	75	135
2007	0	0	0	0	0	31	9	40	0	80	80	205
2008	0	0	0	0	0	32	9	44	0	86	86	278
2009	0	0	0	0	0	33	10	49	0	92	92	355
2010	0	0	0	0	0	34	10	54	0	98	98	434
2011	0	0	0	0	0	35	10	59	0	104	104	517
2012	0	0	0	0	0	35	10	65	0	110	110	603
2013	0	0	0	0	0	36	11	70	0	117	117	692
2014	0	0	0	0	0	37	11	76	0	124	124	784
2015	0	0	0	0	0	38	11	82	0	132	132	880
2016	0	0	0	0	0	39	11	89	0	139	139	979
2017	0	0	0	0	0	40	12	96	0	147	147	1,081
2018	0	0	0	0	0	41	12	103	0	155	155	1,187
2019	0	0	0	0	0	42	12	87	0	141	141	1,280
2020	0	0	0	0	0	43	12	69	0	124	124	1,361
NOMINAL	0	108	0	0	108	606	176	1,128	0	1,911	1,803	
NPV	0	107	0	0	107	469	137	863	0	1,468	1,361	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 13.75

PARTICIPANT COSTS AND BENEFITS
PROGRAM: JHA

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	34	0	0	0	34	0	0	0	0	34	34
2002	75	0	0	0	75	0	0	0	0	75	108
2003	89	0	0	0	89	0	0	0	0	89	193
2004	103	0	0	0	103	0	0	0	0	103	289
2005	118	0	0	0	118	0	0	0	0	118	397
2006	134	0	0	0	134	0	0	0	0	134	516
2007	150	0	0	0	150	0	0	0	0	150	647
2008	167	0	0	0	167	0	0	0	0	167	790
2009	184	0	0	0	184	0	0	0	0	184	943
2010	203	0	0	0	203	0	0	0	0	203	1,109
2011	222	0	0	0	222	0	0	0	0	222	1,285
2012	242	0	0	0	242	0	0	0	0	242	1,474
2013	263	0	0	0	263	0	0	0	0	263	1,674
2014	284	0	0	0	284	0	0	0	0	284	1,885
2015	307	0	0	0	307	0	0	0	0	307	2,108
2016	330	0	0	0	330	0	0	0	0	330	2,343
2017	354	0	0	0	354	0	0	0	0	354	2,590
2018	380	0	0	0	380	0	0	0	0	380	2,848
2019	321	0	0	0	321	0	0	0	0	321	3,061
2020	255	0	0	0	255	0	0	0	0	255	3,226
NOMINAL	4,215	0	0	0	4,215	0	0	0	0	4,215	
NPV	3,226	0	0	0	3,226	0	0	0	0	3,226	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 1.00

RATE IMPACT TEST
PROGRAM: JHA

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	80	0	34	0	114	9	0	0	0	9	(105)	(105)
2002	0	14	0	75	0	89	20	0	0	0	20	(69)	(173)
2003	0	14	0	89	0	103	23	0	0	0	23	(80)	(249)
2004	0	0	0	103	0	103	56	9	0	0	65	(38)	(285)
2005	0	0	0	118	0	118	61	9	0	0	70	(48)	(329)
2006	0	0	0	134	0	134	66	9	0	0	75	(59)	(381)
2007	0	0	0	150	0	150	71	9	0	0	80	(70)	(442)
2008	0	0	0	167	0	167	76	9	0	0	86	(81)	(511)
2009	0	0	0	184	0	184	82	10	0	0	92	(93)	(589)
2010	0	0	0	203	0	203	88	10	0	0	98	(105)	(674)
2011	0	0	0	222	0	222	94	10	0	0	104	(118)	(769)
2012	0	0	0	242	0	242	100	10	0	0	110	(132)	(871)
2013	0	0	0	263	0	263	107	11	0	0	117	(146)	(982)
2014	0	0	0	284	0	284	113	11	0	0	124	(160)	(1,101)
2015	0	0	0	307	0	307	120	11	0	0	132	(175)	(1,228)
2016	0	0	0	330	0	330	128	11	0	0	139	(191)	(1,364)
2017	0	0	0	354	0	354	136	12	0	0	147	(207)	(1,508)
2018	0	0	0	380	0	380	144	12	0	0	155	(224)	(1,661)
2019	0	0	0	321	0	321	129	12	0	0	141	(180)	(1,780)
2020	0	0	0	255	0	255	112	12	0	0	124	(131)	(1,865)
NOMINAL	0	108	0	4,215	0	4,323	1,734	176	0	0	1,911	(2,412)	
NPV	0	107	0	3,226	0	3,333	1,331	137	0	0	1,468	(1,865)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.44

B.2

Commercial / Industrial Measures

PROGRAM: ADS

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.65	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.71	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	581.9	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	547.0	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	299.95	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	400.82	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	4.404	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.6	%
(3) CUSTOMER DEMAND CHARGE PER KW	5.55	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: ADS

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	AVOIDED MARGINAL FUEL COST (C/KWH)	INCREASED MARGINAL FUEL COST (C/KWH)	REPLACEMENT FUEL COST (C/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWH EFFECTIVENESS FACTOR
2001	97	97	1.69	1.69	1.69	1.69	1	1
2002	117	117	1.74	1.73	1.73	1.74	1	1
2003	137	137	1.78	1.78	1.78	1.78	1	1
2004	157	157	1.83	1.83	1.83	1.83	1	1
2005	177	177	1.88	1.87	1.87	1.88	1	1
2006	197	197	1.93	1.92	1.92	1.93	1	1
2007	217	217	1.98	1.97	1.97	1.98	1	1
2008	237	237	2.03	2.02	2.02	2.03	1	1
2009	257	257	2.08	2.08	2.08	2.08	1	1
2010	277	277	2.14	2.13	2.13	2.14	1	1
2011	297	297	2.19	2.18	2.18	2.19	1	1
2012	317	317	2.25	2.24	2.24	2.25	1	1
2013	337	337	2.31	2.30	2.30	2.31	1	1
2014	357	357	2.37	2.36	2.36	2.37	1	1
2015	377	377	2.43	2.42	2.42	2.43	1	1
2016	397	397	2.49	2.48	2.48	2.49	1	1
2017	417	417	2.56	2.55	2.55	2.56	1	1
2018	437	437	2.62	2.61	2.61	2.62	1	1
2019	457	457	2.69	2.68	2.68	2.69	1	1
2020	477	477	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: ADS

* UNIT SIZE OF AVOIDED GENERATION UNIT = 111 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $42

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	3	826	1	2	17	15	0	7
2005	0.0713	3	826	1	2	18	16	0	7
2006	0.0730	3	826	1	2	18	16	0	8
2007	0.0747	3	826	1	2	19	16	0	8
2008	0.0764	3	826	1	2	19	17	0	8
2009	0.0781	3	826	1	2	20	17	0	8
2010	0.0799	3	826	1	2	20	18	0	8
2011	0.0818	3	826	1	2	21	18	0	9
2012	0.0836	4	826	1	2	21	19	0	9
2013	0.0856	4	826	1	2	22	19	0	9
2014	0.0875	4	826	1	2	22	20	0	9
2015	0.0895	4	826	1	2	23	20	0	9
2016	0.0916	4	826	1	2	23	21	0	10
2017	0.0937	4	826	1	2	24	21	0	10
2018	0.0959	4	826	1	2	25	22	0	10
2019	0.0981	4	826	1	2	25	22	0	10
2020	0.1003	4	826	1	2	26	23	0	11
NOMINAL		60	14,041	12	35	361	318	0	150
NPV		46		9	27	279	246	0	116

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: ADS

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $1

* INSERVICE COSTS OF AVOIDED DIST. (000) = $5

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	1
2003	0	0	0	0	0	0	1
2004	0	0	0	0	1	2	2
2005	0	0	0	0	1	2	2
2006	0	0	0	0	1	2	2
2007	0	0	0	0	1	2	2
2008	0	0	0	0	1	2	3
2009	0	0	0	0	2	2	3
2010	0	0	0	0	2	2	3
2011	0	0	0	0	2	2	4
2012	0	0	0	0	2	2	4
2013	0	0	0	0	2	2	4
2014	0	0	0	0	2	2	5
2015	0	0	0	0	2	2	5
2016	0	0	0	0	2	2	6
2017	0	0	0	0	2	2	6
2018	0	0	0	1	2	2	6
2019	0	0	1	1	2	2	7
2020	0	0	1	1	2	2	7
NOMINAL	1	6	7	7	28	35	74
NPV	1	5	6	6	22	27	56

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: ADS

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	28	0	0	0	0	0
2002	62	1	0	0	1	1
2003	74	1	0	0	1	1
2004	86	2	0	0	2	2
2005	97	2	0	0	2	2
2006	109	2	0	0	2	2
2007	120	2	0	0	2	2
2008	132	3	0	0	3	3
2009	144	3	0	0	3	3
2010	155	3	0	0	3	3
2011	167	4	0	0	4	4
2012	179	4	0	0	4	4
2013	190	4	0	0	4	4
2014	202	5	0	0	5	5
2015	214	5	0	0	5	5
2016	225	6	0	0	6	6
2017	237	6	0	0	6	6
2018	248	6	0	0	6	6
2019	260	7	0	0	7	7
2020	272	7	0	0	7	7
NOMINAL	3,201	74	0	0	74	74
NPV		56	0	0	56	56

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: ADS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ---------->						<---------- PARTICIPATING CUSTOMER COSTS & BENEFITS---------->										
YEAR	UTIL. NONREC. COSTS $(000)	UTIL RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL NONREC. REBATES $(000)	UTIL RECUR. REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	29	0	29	0	0	0	39	0	39	27	0	3	4	0	0	0	0
2002	6	0	6	0	0	0	8	0	8	59	1	7	8	0	0	0	0
2003	6	0	6	0	0	0	8	0	8	69	1	9	10	0	0	0	0
2004	0	0	0	0	0	0	9	0	9	80	1	11	12	0	0	0	0
2005	0	0	0	0	0	0	9	0	9	91	2	12	14	0	0	0	0
2006	0	0	0	0	0	0	9	0	9	102	2	14	16	0	0	0	0
2007	0	0	0	0	0	0	9	0	9	113	2	16	18	0	0	0	0
2008	0	0	0	0	0	0	9	0	9	124	3	18	21	0	0	0	0
2009	0	0	0	0	0	0	10	0	10	135	3	20	23	0	0	0	0
2010	0	0	0	0	0	0	10	0	10	146	3	22	25	0	0	0	0
2011	0	0	0	0	0	0	10	0	10	157	3	25	28	0	0	0	0
2012	0	0	0	0	0	0	10	0	10	168	4	27	31	0	0	0	0
2013	0	0	0	0	0	0	11	0	11	179	4	29	33	0	0	0	0
2014	0	0	0	0	0	0	11	0	11	190	5	32	36	0	0	0	0
2015	0	0	0	0	0	0	11	0	11	201	5	34	39	0	0	0	0
2016	0	0	0	0	0	0	11	0	11	212	5	37	43	0	0	0	0
2017	0	0	0	0	0	0	12	0	12	223	6	40	46	0	0	0	0
2018	0	0	0	0	0	0	12	0	12	234	6	43	49	0	0	0	0
2019	0	0	0	0	0	0	12	0	12	245	7	46	53	0	0	0	0
2020	0	0	0	0	0	0	12	0	12	255	7	49	57	0	0	0	0
NOMINAL	42	0	42	0	0	0	232	0	232	3,009	70	497	567	0	0	0	0
NPV	41	0	41	0	0	0	191	0	191		53	375	428		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: ADS

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	29	39	0	68	0	0	0	0	0	(67)	(67)
2002	0	6	8	0	14	0	0	1	0	1	(13)	(80)
2003	0	6	8	0	15	0	0	1	0	1	(13)	(93)
2004	0	0	9	0	9	7	2	2	0	11	2	(91)
2005	0	0	9	0	9	7	2	2	0	11	3	(89)
2006	0	0	9	0	9	8	2	2	0	12	3	(86)
2007	0	0	9	0	9	8	2	2	0	12	3	(83)
2008	0	0	9	0	9	8	2	3	0	13	4	(80)
2009	0	0	10	0	10	8	2	3	0	13	4	(77)
2010	0	0	10	0	10	8	2	3	0	14	4	(74)
2011	0	0	10	0	10	9	2	4	0	15	5	(70)
2012	0	0	10	0	10	9	3	4	0	15	5	(66)
2013	0	0	11	0	11	9	3	4	0	16	5	(62)
2014	0	0	11	0	11	9	3	5	0	17	6	(58)
2015	0	0	11	0	11	9	3	5	0	17	6	(53)
2016	0	0	11	0	11	10	3	6	0	18	7	(49)
2017	0	0	12	0	12	10	3	6	0	19	7	(44)
2018	0	0	12	0	12	10	3	6	0	19	8	(38)
2019	0	0	12	0	12	10	3	7	0	20	8	(33)
2020	0	0	12	0	12	11	3	7	0	21	9	(27)
NOMINAL	0	42	232	0	273	150	43	74	0	267	(6)	
NPV	0	41	191	0	232	116	33	56	0	205	(27)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.88

PARTICIPANT COSTS AND BENEFITS
PROGRAM: ADS

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	4	0	0	0	4	39	0	0	39	(35)	(35)
2002	8	0	0	0	8	8	0	0	8	0	(35)
2003	10	0	0	0	10	8	0	0	8	2	(33)
2004	12	0	0	0	12	9	0	0	9	4	(30)
2005	14	0	0	0	14	9	0	0	9	5	(25)
2006	16	0	0	0	16	9	0	0	9	7	(19)
2007	18	0	0	0	18	9	0	0	9	9	(11)
2008	21	0	0	0	21	9	0	0	9	11	(1)
2009	23	0	0	0	23	10	0	0	10	13	10
2010	25	0	0	0	25	10	0	0	10	16	23
2011	28	0	0	0	28	10	0	0	10	18	37
2012	31	0	0	0	31	10	0	0	10	20	53
2013	33	0	0	0	33	11	0	0	11	23	70
2014	36	0	0	0	36	11	0	0	11	26	89
2015	39	0	0	0	39	11	0	0	11	28	110
2016	43	0	0	0	43	11	0	0	11	31	132
2017	46	0	0	0	46	12	0	0	12	34	156
2018	49	0	0	0	49	12	0	0	12	37	181
2019	53	0	0	0	53	12	0	0	12	41	208
2020	57	0	0	0	57	12	0	0	12	44	237
NOMINAL	567	0	0	0	567	232	0	0	232	335	
NPV	428	0	0	0	428	191	0	0	191	237	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 2.24

RATE IMPACT TEST
PROGRAM: ADS

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	29	0	4	0	33	0	0	0	0	0	(32)	(32)
2002	0	6	0	8	0	15	1	0	0	0	1	(13)	(45)
2003	0	6	0	10	0	16	1	0	0	0	1	(15)	(60)
2004	0	0	0	12	0	12	9	2	0	0	11	(1)	(61)
2005	0	0	0	14	0	14	9	2	0	0	11	(3)	(64)
2006	0	0	0	16	0	16	10	2	0	0	12	(4)	(67)
2007	0	0	0	18	0	18	10	2	0	0	12	(6)	(73)
2008	0	0	0	21	0	21	11	2	0	0	13	(8)	(79)
2009	0	0	0	23	0	23	11	2	0	0	13	(9)	(87)
2010	0	0	0	25	0	25	12	2	0	0	14	(11)	(96)
2011	0	0	0	28	0	28	12	2	0	0	15	(13)	(107)
2012	0	0	0	31	0	31	13	3	0	0	15	(15)	(119)
2013	0	0	0	33	0	33	13	3	0	0	16	(18)	(132)
2014	0	0	0	36	0	36	14	3	0	0	17	(20)	(147)
2015	0	0	0	39	0	39	15	3	0	0	17	(22)	(163)
2016	0	0	0	43	0	43	15	3	0	0	18	(25)	(181)
2017	0	0	0	46	0	46	16	3	0	0	19	(27)	(200)
2018	0	0	0	49	0	49	17	3	0	0	19	(30)	(220)
2019	0	0	0	53	0	53	17	3	0	0	20	(33)	(241)
2020	0	0	0	57	0	57	18	3	0	0	21	(35)	(264)
NOMINAL	0	42	0	567	0	608	224	43	0	0	267	(341)	
NPV	0	41	0	428	0	469	172	33	0	0	205	(264)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.44

PROGRAM: CCEL

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.65	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.71	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	581.9	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	547.0	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	61.16	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	39.77	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	2.3	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	2.3	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	0.00	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	2.3	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	4.404	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.6	%
(3) CUSTOMER DEMAND CHARGE PER KW	5.55	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	2.3	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: CCEL

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	(5) AVOIDED MARGINAL FUEL COST (C/KWH)	(6) INCREASED MARGINAL FUEL COST (C/KWH)	(7) REPLACEMENT FUEL COST (C/KWH)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM KWH EFFECTIVENESS FACTOR
2001	891	891	1.69	1.69	1.69	1.69	1	1
2002	1009	1009	1.74	1.73	1.73	1.74	1	1
2003	1127	1127	1.78	1.78	1.78	1.78	1	1
2004	1170	1170	1.83	1.83	1.83	1.83	1	1
2005	1213	1213	1.88	1.87	1.87	1.88	1	1
2006	1258	1258	1.93	1.92	1.92	1.93	1	1
2007	1305	1305	1.98	1.97	1.97	1.98	1	1
2008	1353	1353	2.03	2.02	2.02	2.03	1	1
2009	1403	1403	2.08	2.08	2.08	2.08	1	1
2010	1455	1455	2.14	2.13	2.13	2.14	1	1
2011	1509	1509	2.19	2.18	2.18	2.19	1	1
2012	1565	1565	2.25	2.24	2.24	2.25	1	1
2013	1623	1623	2.31	2.30	2.30	2.31	1	1
2014	1683	1683	2.37	2.36	2.36	2.37	1	1
2015	1746	1746	2.43	2.42	2.42	2.43	1	1
2016	1811	1811	2.49	2.48	2.48	2.49	1	1
2017	1878	1878	2.56	2.55	2.55	2.56	1	1
2018	1948	1948	2.62	2.61	2.61	2.62	1	1
2019	2020	2020	2.69	2.68	2.68	2.69	1	1
2020	2095	2095	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: CCEL

* UNIT SIZE OF AVOIDED GENERATION UNIT = 827 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $313

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	22	6,155	4	13	128	113	0	54
2005	0.0713	22	6,155	4	13	131	116	0	55
2006	0.0730	23	6,155	5	13	135	119	0	57
2007	0.0747	23	6,155	5	14	138	122	0	58
2008	0.0764	24	6,155	5	14	142	125	0	59
2009	0.0781	24	6,155	5	14	145	128	0	61
2010	0.0799	25	6,155	5	14	149	131	0	62
2011	0.0818	26	6,155	5	15	153	135	0	64
2012	0.0836	26	6,155	5	15	157	138	0	65
2013	0.0856	27	6,155	5	15	161	142	0	67
2014	0.0875	27	6,155	5	16	165	146	0	68
2015	0.0895	28	6,155	6	16	170	149	0	70
2016	0.0916	29	6,155	6	17	174	153	0	72
2017	0.0937	29	6,155	6	17	179	157	0	73
2018	0.0959	30	6,155	6	17	183	161	0	75
2019	0.0981	31	6,155	6	18	188	166	0	77
2020	0.1003	31	6,155	6	18	193	170	0	79
NOMINAL		447	104,637	90	259	2,690	2,371	0	1,116
NPV		346		69	200	2,079	1,832	0	863

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: CCEL

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $6

* INSERVICE COSTS OF AVOIDED DIST. (000) = $43

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	4
2002	0	0	0	0	0	0	10
2003	0	0	0	0	0	0	11
2004	0	3	3	3	11	14	12
2005	0	3	3	3	11	14	13
2006	0	3	3	3	12	15	14
2007	0	3	3	3	12	15	15
2008	0	3	3	3	12	16	16
2009	0	3	3	3	13	16	17
2010	0	3	3	3	13	16	18
2011	0	3	3	4	13	17	19
2012	0	3	4	4	13	17	20
2013	0	3	4	4	14	17	21
2014	0	3	4	4	14	18	23
2015	1	3	4	4	14	18	24
2016	1	3	4	4	15	19	26
2017	1	3	4	4	15	19	27
2018	1	4	4	4	15	19	29
2019	1	4	4	4	16	20	31
2020	1	4	4	4	16	20	33
NOMINAL	8	52	60	61	229	291	382
NPV	6	41	47	48	178	225	295

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: CCEL

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	259	4	0	0	4	4
2002	553	10	0	0	10	10
2003	621	11	0	0	11	11
2004	668	12	0	0	12	12
2005	693	13	0	0	13	13
2006	719	14	0	0	14	14
2007	746	15	0	0	15	15
2008	773	16	0	0	16	16
2009	802	17	0	0	17	17
2010	832	18	0	0	18	18
2011	862	19	0	0	19	19
2012	894	20	0	0	20	20
2013	928	21	0	0	21	21
2014	962	23	0	0	23	23
2015	998	24	0	0	24	24
2016	1,035	26	0	0	26	26
2017	1,073	27	0	0	27	27
2018	1,113	29	0	0	29	29
2019	1,155	31	0	0	31	31
2020	1,197	33	0	0	33	33
NOMINAL	16,884	382	0	0	382	382
NPV		295	0	0	295	295

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: CCEL

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ------>						<------ PARTICIPATING CUSTOMER COSTS & BENEFITS ------>										
YEAR	UTIL NONREC. COSTS $(000)	UTIL RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL NONREC. REBATES $(000)	UTIL RECUR. REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	54	0	54	0	0	0	35	0	35	244	4	30	34	0	0	0	0
2002	7	0	7	0	0	0	5	0	5	520	9	66	75	0	0	0	0
2003	8	0	8	0	0	0	5	0	5	584	10	75	86	0	0	0	0
2004	0	0	0	0	0	0	2	0	2	628	12	83	95	0	0	0	0
2005	0	0	0	0	0	0	2	0	2	652	12	88	101	0	0	0	0
2006	0	0	0	0	0	0	2	0	2	676	13	94	107	0	0	0	0
2007	0	0	0	0	0	0	2	0	2	701	14	100	113	0	0	0	0
2008	0	0	0	0	0	0	2	0	2	727	15	106	121	0	0	0	0
2009	0	0	0	0	0	0	2	0	2	754	16	112	128	0	0	0	0
2010	0	0	0	0	0	0	3	0	3	782	17	119	136	0	0	0	0
2011	0	0	0	0	0	0	3	0	3	811	18	127	144	0	0	0	0
2012	0	0	0	0	0	0	3	0	3	841	19	134	153	0	0	0	0
2013	0	0	0	0	0	0	3	0	3	872	20	143	163	0	0	0	0
2014	0	0	0	0	0	0	3	0	3	904	21	152	173	0	0	0	0
2015	0	0	0	0	0	0	3	0	3	938	23	161	184	0	0	0	0
2016	0	0	0	0	0	0	4	0	4	973	24	171	195	0	0	0	0
2017	0	0	0	0	0	0	4	0	4	1,009	26	182	208	0	0	0	0
2018	0	0	0	0	0	0	4	0	4	1,046	28	193	221	0	0	0	0
2019	0	0	0	0	0	0	4	0	4	1,085	29	205	234	0	0	0	0
2020	0	0	0	0	0	0	5	0	5	1,125	31	218	249	0	0	0	0
NOMINAL	69	0	69	0	0	0	96	0	96	15,871	361	2,559	2,920	0	0	0	0
NPV	69	0	69	0	0	0	83	0	83		279	1,977	2,256		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: CCEL

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	54	35	0	90	0	0	4	0	4	(86)	(86)
2002	0	7	5	0	12	0	0	10	0	10	(3)	(88)
2003	0	8	5	0	12	0	0	11	0	11	(1)	(89)
2004	0	0	2	0	2	54	17	12	0	83	81	(13)
2005	0	0	2	0	2	55	18	13	0	86	84	63
2006	0	0	2	0	2	57	18	14	0	88	86	140
2007	0	0	2	0	2	58	18	15	0	91	89	218
2008	0	0	2	0	2	59	19	16	0	94	91	296
2009	0	0	2	0	2	61	19	17	0	97	94	374
2010	0	0	3	0	3	62	20	18	0	100	97	453
2011	0	0	3	0	3	64	20	19	0	103	100	533
2012	0	0	3	0	3	65	21	20	0	106	103	613
2013	0	0	3	0	3	67	21	21	0	109	106	694
2014	0	0	3	0	3	68	21	23	0	113	109	775
2015	0	0	3	0	3	70	22	24	0	116	113	857
2016	0	0	4	0	4	72	22	26	0	120	116	940
2017	0	0	4	0	4	73	23	27	0	124	120	1,023
2018	0	0	4	0	4	75	24	29	0	128	124	1,107
2019	0	0	4	0	4	77	24	31	0	132	128	1,192
2020	0	0	5	0	5	79	25	33	0	136	132	1,277
NOMINAL	0	69	96	0	165	1,116	351	382	0	1,849	1,683	
NPV	0	69	83	0	152	863	272	295	0	1,429	1,277	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 9.39

PARTICIPANT COSTS AND BENEFITS
PROGRAM: CCEL

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	34	0	0	0	34	35	0	0	35	(1)	(1)
2002	75	0	0	0	75	5	0	0	5	70	67
2003	86	0	0	0	86	5	0	0	5	81	144
2004	95	0	0	0	95	2	0	0	2	93	231
2005	101	0	0	0	101	2	0	0	2	99	321
2006	107	0	0	0	107	2	0	0	2	105	415
2007	113	0	0	0	113	2	0	0	2	111	512
2008	121	0	0	0	121	2	0	0	2	118	613
2009	128	0	0	0	128	2	0	0	2	126	717
2010	136	0	0	0	136	3	0	0	3	133	826
2011	144	0	0	0	144	3	0	0	3	142	939
2012	153	0	0	0	153	3	0	0	3	151	1,056
2013	163	0	0	0	163	3	0	0	3	160	1,178
2014	173	0	0	0	173	3	0	0	3	170	1,305
2015	184	0	0	0	184	3	0	0	3	181	1,436
2016	195	0	0	0	195	4	0	0	4	192	1,572
2017	208	0	0	0	208	4	0	0	4	204	1,714
2018	221	0	0	0	221	4	0	0	4	217	1,861
2019	234	0	0	0	234	4	0	0	4	230	2,014
2020	249	0	0	0	249	5	0	0	5	244	2,173
NOMINAL	2,920	0	0	0	2,920	96	0	0	96	2,824	
NPV	2,256	0	0	0	2,256	83	0	0	83	2,173	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 27.08

RATE IMPACT TEST
PROGRAM: CCEL

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	54	0	34	0	89	4	0	0	0	4	(84)	(84)
2002	0	7	0	75	0	82	10	0	0	0	10	(72)	(155)
2003	0	8	0	86	0	93	11	0	0	0	11	(82)	(234)
2004	0	0	0	95	0	95	66	17	0	0	83	(11)	(244)
2005	0	0	0	101	0	101	68	18	0	0	86	(15)	(258)
2006	0	0	0	107	0	107	70	18	0	0	88	(18)	(274)
2007	0	0	0	113	0	113	73	18	0	0	91	(22)	(294)
2008	0	0	0	121	0	121	75	19	0	0	94	(27)	(317)
2009	0	0	0	128	0	128	77	19	0	0	97	(31)	(343)
2010	0	0	0	136	0	136	80	20	0	0	100	(36)	(373)
2011	0	0	0	144	0	144	83	20	0	0	103	(42)	(406)
2012	0	0	0	153	0	153	85	21	0	0	106	(48)	(443)
2013	0	0	0	163	0	163	88	21	0	0	109	(54)	(484)
2014	0	0	0	173	0	173	91	21	0	0	113	(61)	(529)
2015	0	0	0	184	0	184	94	22	0	0	116	(68)	(579)
2016	0	0	0	195	0	195	97	22	0	0	120	(76)	(633)
2017	0	0	0	208	0	208	101	23	0	0	124	(84)	(691)
2018	0	0	0	221	0	221	104	24	0	0	128	(93)	(754)
2019	0	0	0	234	0	234	108	24	0	0	132	(102)	(822)
2020	0	0	0	249	0	249	112	25	0	0	136	(113)	(895)
NOMINAL	0	69	0	2,920	0	2,989	1,497	351	0	0	1,849	(1,141)	
NPV	0	69	0	2,256	0	2,325	1,158	272	0	0	1,429	(895)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.61

B.3

Florida Power & Light Measure

PROGRAM: OPBC

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	1.00	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.09	KW GEN/CUST
(3) KW LINE LOSS PERCENTAGE	8.0	%
(4) GENERATION KWH REDUCTION PER CUSTOMER	0.0	KWH/CUST/YR
(5) KWH LINE LOSS PERCENTAGE	6.0	%
(6) GROUP LINE LOSS MULTIPLIER	1.0034	
(7) CUSTOMER KWH PROGRAM INCREASE AT METER	0.0	KWH/CUST/YR
(8)* CUSTOMER KWH REDUCTION AT METER	0.0	KWH/CUST/YR

II. ECONOMIC LIFE AND K FACTORS

(1) STUDY PERIOD FOR CONSERVATION PROGRAM	20	YEARS
(2) GENERATOR ECONOMIC LIFE	25	YEARS
(3) T & D ECONOMIC LIFE	25	YEARS
(4) K FACTOR FOR GENERATION	1.74	
(5) K FACTOR FOR T & D	1.74	
(6)* SWITCH REV REQ(0) OR VAL-OF-DEF (1)	1	

III. UTILITY AND CUSTOMER COSTS

(1)** UTILITY NONRECURRING COST PER CUSTOMER	65.93	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	0.00	$/CUST/YR
(3) UTILITY COST ESCALATION RATE	2.3	%
(4) CUSTOMER EQUIPMENT COST	255.35	$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	2.3	%
(6) CUSTOMER O & M COST	0.00	$/CUST/YR
(7) CUSTOMER O & M ESCALATION RATE	2.3	%
(8)* CUSTOMER TAX CREDIT PER INSTALLATION	0.00	$/CUST
(9)* CUSTOMER TAX CREDIT ESCALATION RATE	0.0	%
(10)* INCREASED SUPPLY COSTS	0.00	$/CUST/YR
(11)* SUPPLY COSTS ESCALATION RATE	0.0	%
(12)* UTILITY DISCOUNT RATE	2.30	%
(13)* UTILITY AFUDC RATE	5.50	%
(14)* UTILITY NON RECURRING REBATE/INCENTIVE	78.49	$/CUST
(15)* UTILITY RECURRING REBATE/INCENTIVE	0.00	$/CUST/YR
(16)* UTILITY REBATE/INCENTIVE ESCAL RATE	0.0	%

IV. AVOIDED GENERATOR, TRANS. AND DIST. COSTS

(1) BASE YEAR	2001	
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2004	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2004	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	54.76486	$/KW
(7) GEN, TRAN, & DIST COST ESCALATION RATE	2.3	%
(8) GENERATOR FIXED O & M COST	4.939617	$/KW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.3	%
(10) TRANSMISSION FIXED O & M COST	2.993073	$/KW/YR
(11) DISTRIBUTION FIXED O & M COST	14.25372	$/KW/YR
(12) T&D FIXED O&M ESCALATION RATE	2.3	%
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.191515	CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.3	%
(15) GENERATOR CAPACITY FACTOR	85	%
(16) AVOIDED GENERATING UNIT FUEL COST	1.923344	CENTS/KWH
(17) AVOIDED GEN UNIT FUEL ESCALATION RATE	2.6	%
(18)* AVOIDED PURCHASE CAPACITY COST PER KW	0	$/KW/YR
(19)* CAPACITY COST ESCALATION RATE	2.3	%

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	4.404	CENTS/KWH
(2) NON-FUEL ESCALATION RATE	2.3	%
(3) CUSTOMER DEMAND CHARGE PER KW	5.55	$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	0.0	%
(5)* DIVERSITY and ANNUAL DEMAND ADJUSTMENT FACTOR FOR CUSTOMER BILL	1.0	

* FIRE Program Version Number: 1.03

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NONRECURRING & RECURRING COSTS IN INPUTS III.(1 & 2) DO NOT INCLUDE CUSTOMER REBATES PAID BY THE UTILITY. UTILITY REBATES ARE INPUT IN III.(14 & 15).

PROGRAM: OPBC

* Avoided Generation Unit: CC-JEA
* Program Generation Equivilency Factor: 1.00

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COSTS (C/KWH)	(5) AVOIDED MARGINAL FUEL COST (C/KWH)	(6) INCREASED MARGINAL FUEL COST (C/KWH)	(7) REPLACEMENT FUEL COST (C/KWH)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM KWH EFFECTIVENESS FACTOR
2001	3	3	1.69	1.69	1.69	1.69	1	1
2002	3	3	1.74	1.73	1.73	1.74	1	1
2003	4	4	1.78	1.78	1.78	1.78	1	1
2004	4	4	1.83	1.83	1.83	1.83	1	1
2005	5	5	1.88	1.87	1.87	1.88	1	1
2006	6	6	1.93	1.92	1.92	1.93	1	1
2007	7	7	1.98	1.97	1.97	1.98	1	1
2008	7	7	2.03	2.02	2.02	2.03	1	1
2009	8	8	2.08	2.08	2.08	2.08	1	1
2010	9	9	2.14	2.13	2.13	2.14	1	1
2011	11	11	2.19	2.18	2.18	2.19	1	1
2012	12	12	2.25	2.24	2.24	2.25	1	1
2013	14	14	2.31	2.30	2.30	2.31	1	1
2014	16	16	2.37	2.36	2.36	2.37	1	1
2015	18	18	2.43	2.42	2.42	2.43	1	1
2016	20	20	2.49	2.48	2.48	2.49	1	1
2017	23	23	2.56	2.55	2.55	2.56	1	1
2018	26	26	2.62	2.61	2.61	2.62	1	1
2019	30	30	2.69	2.68	2.68	2.69	1	1
2020	34	34	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2004 AVOIDED UNIT

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEAR	NO. YEARS BEFORE INSERVICE	PLANT ESCALATION RATE (%)	CUMULATIVE ESCALATION FACTOR	YEARLY EXPENDITURE (%)	ANNUAL SPENDING ($/KW)	CUMULATIVE AVERAGE SPENDING ($/KW)	CUMULATIVE SPENDING WITH AFUDC ($/KW)	YEARLY TOTAL AFUDC ($/KW)	INCREMENTAL YEAR-END BOOK VALUE ($/KW)	CUMULATIVE YEAR-END BOOK VALUE ($/KW)
1995	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1996	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2003	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2004	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2004

PLANT COSTS (2001 $) $348.97
AFUDC RATE: 5.50%

AFUDC Calculation

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
		<-- COST DATA FOR CONSTRUCTION OF PLANT -->	
1995	-9	0.0%	0.0%
1996	-8	0.0%	0.0%
1997	-7	0.0%	0.0%
1998	-6	0.0%	0.0%
1999	-5	0.0%	0.0%
2000	-4	0.0%	0.0%
2001	-3	0.0%	0.0%
2002	-2	2.3%	25.0%
2003	-1	2.3%	75.0%
2004	0	2.3%	0.0%

TEMP DATA/NOT USED BY PROGRAM	
CT	CC
0.0%	0.0%
0.0%	0.0%
0.0%	20.3%
55.3%	50.2%
44.7%	29.5%
0.0%	0.0%
1	1

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: OPBC

* UNIT SIZE OF AVOIDED GENERATION UNIT = 4 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $2

(1) Year	(1A)* VALUE OF DEFERRAL FACTOR	(2) AVOIDED GEN UNIT CAPACITY COST $(000)	(2A)* AVOIDED ANNUAL UNIT KWH GEN (000)	(3) AVOIDED UNIT FIXED O&M COST $(000)	(4) AVOIDED GEN UNIT VARIABLE O&M COST $(000)	(5) AVOIDED GEN UNIT FUEL COST $(000)	(6) REPLACEMENT FUEL COST $(000)	(6A) AVOIDED PURCHASED CAPACITY COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)
2001	0.0000	0	0	0	0	0	0	0	0
2002	0.0000	0	0	0	0	0	0	0	0
2003	0.0000	0	0	0	0	0	0	0	0
2004	0.0697	0	32	0	0	1	1	0	0
2005	0.0713	0	32	0	0	1	1	0	0
2006	0.0730	0	32	0	0	1	1	0	0
2007	0.0747	0	32	0	0	1	1	0	0
2008	0.0764	0	32	0	0	1	1	0	0
2009	0.0781	0	32	0	0	1	1	0	0
2010	0.0799	0	32	0	0	1	1	0	0
2011	0.0818	0	32	0	0	1	1	0	0
2012	0.0836	0	32	0	0	1	1	0	0
2013	0.0856	0	32	0	0	1	1	0	0
2014	0.0875	0	32	0	0	1	1	0	0
2015	0.0895	0	32	0	0	1	1	0	0
2016	0.0916	0	32	0	0	1	1	0	0
2017	0.0937	0	32	0	0	1	1	0	0
2018	0.0959	0	32	0	0	1	1	0	0
2019	0.0981	0	32	0	0	1	1	0	0
2020	0.1003	0	32	0	0	1	1	0	0
NOMINAL		2	550	0	1	14	12	0	6
NPV		2		0	1	11	10	0	5

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: OPBC

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $0

* INSERVICE COSTS OF AVOIDED DIST. (000) = $0

(1) Year	(2) AVOIDED TRANSMISSION CAPACITY COST $(000)	(3) AVOIDED TRANSMISSION O&M COST (000)	(4) TOTAL AVOIDED TRANSMISSION COST $(000)	(5) AVOIDED DISTRIBUTION CAPACITY COST $(000)	(6) AVOIDED DISTRIBUTION O&M COST $(000)	(7) TOTAL AVOIDED DISTRIBUTION COST $(000)	(8) PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0
NOMINAL	0	0	0	0	1	2	0
NPV	0	0	0	0	1	1	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: OPBC

(1)	(2)	(3)	(4)	(5)	(6)	(7)
YEAR	REDUCTION IN KWH GENERATION NET NEW CUST KWH (000)	AVOIDED MARGINAL FUEL COST - REDUCED KWH $(000)	INCREASE IN KWH GENERATION NET NEW CUST KWH (000)	INCREASED MARGINAL FUEL COST - INCREASE KWH $(000)	NET AVOIDED PROGRAM FUEL SAVINGS $(000)	EFFECTIVE PROGRAM FUEL SAVINGS $(000)
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	0	0	0	0	0	0
2020	0	0	0	0	0	0
NOMINAL	0	0	0	0	0	0
NPV		0	0	0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET: UTILITY COSTS, PARTICIPANT COSTS, AND REV LOSS/GAIN
PROGRAM: OPBC

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	<------ UTILITY PROGRAM COSTS & REBATES ---------->						<---------- PARTICIPATING CUSTOMER COSTS & BENEFITS--------->										
YEAR	UTIL NONREC. COSTS $(000)	UTIL RECUR COSTS $(000)	TOTAL UTIL PGM COSTS $(000)	UTIL NONREC. REBATES $(000)	UTIL RECUR. REBATES $(000)	TOTAL REBATE/ INCENT. COSTS $(000)	PARTIC. CUST EQUIP COSTS $(000)	PARTIC. CUST O & M COSTS $(000)	TOTAL PARTIC. CUST COSTS $(000)	REDUCT. IN CUST. KWH (000)	RED. REV. - FUEL PORTION $(000)	RED. REV. NONFUEL PORTION $(000)	EFFECT. REV. REDUCT. IN BILL $(000)	INC. IN CUST. KWH (000)	INC. REV. - FUEL PORTION $(000)	INC. REV. NONFUEL PORTION	EFFECT. REVENUE INC. IN BILL $(000)
2001	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
2011	0	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
2013	0	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
2014	0	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
2015	0	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
2016	0	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
2017	0	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
2018	0	0	0	0	0	0	1	0	1	0	0	2	2	0	0	0	0
2019	0	0	0	0	0	0	2	0	2	0	0	2	2	0	0	0	0
2020	0	0	0	0	0	0	2	0	2	0	0	2	2	0	0	0	0
NOMINAL	0	0	0	0	0	0	12	0	12	0	0	16	16	0	0	0	0
NPV	0	0	0	0	0	0	9	0	9		0	12	12		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: OPBC

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) PARTICIPANT PROGRAM COSTS $(000)	(5) OTHER COSTS $(000)	(6) TOTAL COSTS $(000)	(7) AVOIDED GEN UNIT BENEFITS $(000)	(8) AVOIDED T & D BENEFITS $(000)	(9) PROGRAM FUEL SAVINGS $(000)	(10) OTHER BENEFITS $(000)	(11) TOTAL BENEFITS $(000)	(12) NET BENEFITS $(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	0	1	0	1	0	0	0	0	0	(1)	(1)
2002	0	0	0	0	0	0	0	0	0	0	0	(1)
2003	0	0	0	0	0	0	0	0	0	0	(0)	(1)
2004	0	0	0	0	0	0	0	0	0	0	0	(1)
2005	0	0	0	0	0	0	0	0	0	0	0	(1)
2006	0	0	0	0	0	0	0	0	0	0	0	(1)
2007	0	0	0	0	0	0	0	0	0	0	0	(1)
2008	0	0	0	0	0	0	0	0	0	0	0	(0)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)
2010	0	0	0	0	0	0	0	0	0	0	0	(0)
2011	0	0	1	0	1	0	0	0	0	0	(0)	(0)
2012	0	0	0	0	0	0	0	0	0	0	0	(0)
2013	0	0	1	0	1	0	0	0	0	0	(0)	(0)
2014	0	0	1	0	1	0	0	0	0	0	(0)	(0)
2015	0	0	1	0	1	0	0	0	0	0	(0)	(1)
2016	0	0	1	0	1	0	0	0	0	0	(0)	(1)
2017	0	0	1	0	1	0	0	0	0	1	(1)	(1)
2018	0	0	1	0	1	0	0	0	0	1	(1)	(2)
2019	0	0	2	0	2	0	0	0	0	1	(1)	(2)
2020	0	0	2	0	2	0	0	0	0	1	(1)	(3)
NOMINAL	0	0	12	0	12	6	2	0	0	8	(4)	
NPV	0	0	9	0	9	5	1	0	0	6	(3)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.67

PARTICIPANT COSTS AND BENEFITS
PROGRAM: OPBC

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILL $(000)	(3) TAX CREDITS $(000)	(4) UTILITY REBATES $(000)	(5) OTHER BENEFITS $(000)	(6) TOTAL BENEFITS $(000)	(7) CUSTOMER EQUIPMENT COSTS $(000)	(8) CUSTOMER O & M COSTS $(000)	(9) OTHER COSTS $(000)	(10) TOTAL COSTS $(000)	(11) NET BENEFITS $(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	0	0	0	0	1	0	0	1	(0)	(0)
2002	0	0	0	0	0	0	0	0	0	0	(0)
2003	0	0	0	0	0	0	0	0	0	0	(0)
2004	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	1
2009	0	0	0	0	0	0	0	0	0	0	1
2010	1	0	0	0	1	0	0	0	0	0	1
2011	1	0	0	0	1	1	0	0	1	0	1
2012	1	0	0	0	1	0	0	0	0	0	1
2013	1	0	0	0	1	1	0	0	1	0	2
2014	1	0	0	0	1	1	0	0	1	0	2
2015	1	0	0	0	1	1	0	0	1	0	2
2016	1	0	0	0	1	1	0	0	1	1	2
2017	1	0	0	0	1	1	0	0	1	0	3
2018	2	0	0	0	2	1	0	0	1	1	3
2019	2	0	0	0	2	2	0	0	2	0	3
2020	2	0	0	0	2	2	0	0	2	1	4
NOMINAL	16	0	0	0	16	12	0	0	12	5	
NPV	12	0	0	0	12	9	0	0	9	4	

In-service year of generation unit: 2004
Discount rate: 2.30%
Benefit/Cost Ratio: 1.42

RATE IMPACT TEST
PROGRAM: OPBC

(1) YEAR	(2) INCREASED SUPPLY COSTS $(000)	(3) UTILITY PROGRAM COSTS $(000)	(4) INCENTIVES $(000)	(5) REVENUE LOSSES $(000)	(6) OTHER COSTS $(000)	(7) TOTAL COSTS $(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS $(000)	(9) AVOIDED T & D BENEFITS $(000)	(10) REVENUE GAINS $(000)	(11) OTHER BENEFITS $(000)	(12) TOTAL BENEFITS $(000)	(13) NET BENEFITS TO ALL CUSTOMERS $(000)	(14) CUMULATIVE DISCOUNTED NET BENEFIT $(000)
2001	0	0	0	0	0	1	0	0	0	0	0	(1)	(1)
2002	0	0	0	0	0	0	0	0	0	0	0	(0)	(1)
2003	0	0	0	0	0	0	0	0	0	0	0	(0)	(1)
2004	0	0	0	0	0	0	0	0	0	0	0	0	(1)
2005	0	0	0	0	0	0	0	0	0	0	0	0	(1)
2006	0	0	0	0	0	0	0	0	0	0	0	0	(1)
2007	0	0	0	0	0	0	0	0	0	0	0	(0)	(1)
2008	0	0	0	0	0	0	0	0	0	0	0	(0)	(1)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(1)
2010	0	0	0	1	0	1	0	0	0	0	0	(0)	(1)
2011	0	0	0	1	0	1	0	0	0	0	0	(0)	(1)
2012	0	0	0	1	0	1	0	0	0	0	0	(0)	(2)
2013	0	0	0	1	0	1	0	0	0	0	0	(0)	(2)
2014	0	0	0	1	0	1	0	0	0	0	0	(1)	(2)
2015	0	0	0	1	0	1	0	0	0	0	0	(1)	(3)
2016	0	0	0	1	0	1	0	0	0	0	0	(1)	(3)
2017	0	0	0	1	0	1	0	0	0	0	1	(1)	(4)
2018	0	0	0	2	0	2	0	0	0	0	1	(1)	(5)
2019	0	0	0	2	0	2	0	0	0	0	1	(1)	(6)
2020	0	0	0	2	0	2	0	0	0	0	1	(2)	(7)
NOMINAL	0	0	0	16	0	17	6	2	0	0	8	(9)	
NPV	0	0	0	12	0	13	5	1	0	0	6	(7)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.48

Proposed Numeric Conservation Goals						
	Residential Reduction			Commercial/Industrial Reduction		
Year	Summer kW	Winter kW	MWh	Summer kW	Winter kW	MWh
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0