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January 14, 2000

By Facsimile
(850) 413-7118

Ms. Blanca S. Bayo, Director
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Florida Public Service Commission
2540 Shumard Oak Boulevard
110 Betty Easley Conference Center
Tallahassee, Florida 32399-0850

Re: Addition of Numeric Conservation Goals and Consideration Standards of National Energy Policy Act (§ 111) by Jacksonville Electric Authority - Docket 990720-EG

Dear Ms. Bayo:

Enclosed please find an original and fifteen (15) copies of JEA's Revised 2000 Demand-Side Management Plan and Notice of Filing and Certificate of Service regarding same to be filed in the above-captioned docket. Also enclosed is a diskette of JEA's Revised 2000 Demand-Side Management Plan. Please file stamp the enclosed extra copy of this letter and return it to me in the self-addressed, stamped envelope provided to acknowledge receipt and filing. Thank you for your assistance.

AFA
APP
CAF
CMU
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EAG
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MAS 3
OPC
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Very truly yours,

Michael B. Wedner
Assistant General Counsel

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Adoption of Numeric Conservation Goals and Consideration of National Energy Policy Act Standards (Section 111) by Jacksonville Electric Authority

DOCKET NO. 990720-EG

NOTICE OF FILING AND CERTIFICATE OF SERVICE

Please take notice that JEA is filing with PSC an original and fifteen (15) copies of its Revised 2000 Demand-Side Management Plan. I CERTIFY that copies of the Revised 2000 Demand-Side Management Plan have been furnished via U.S. mail this 14th day of January, 2000 to:

Executive Office of the Governor
Office of Planning and Budget
General Government Unit-Stuart Pollins
The Capitol, Rm. 1501
Tallahassee, FL 32399-0001
Phone: 850-487-1884
Fax: 414-2261

Legal Environmental Assistance
Foundation, Inc.
Debra Swim, Esquire/Gail Kamaras, Esquire
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Tallahassee, FL 32303-6327
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2540 Shumard Oak Boulevard
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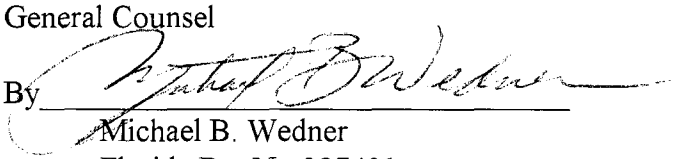
By 

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ORIGINAL

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

2000 Demand-Side Management Plan

Building Community

Docket No. 990720-EG
January 10, 2000

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List of Tables

Executive Summary

In accordance with Rule 25-17.0021, 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 Rule 25-17.0021, 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 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, the most cost-effective measure evaluated by Florida's largest investor owned utility, Florida Power & Light and direct load control as requested by the PSC staff.

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, the most cost-effective measure that was found to be cost-effective by Florida's largest investor owned utility, Florida Power & Light and direct load control as requested by the PSC staff. 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 DSM 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 four sources: JEA existing DSM measures, JEA 1998 Ten Year Site Plan, 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 1998 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 number of customers. The input data used in the FIRE Model is shown in Appendix B.

Table 3-1
DSM Measures

DSM 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
DLC	Direct Load Control	JEA 1998 Ten Year Site Plan
	Commercial/Industrial	
ADS	Contractor, Building Inspector and Architect Continuing Education – Commercial: *Uncontrolled Airflow in Non-Residential Buildings, Uncontrolled Airflow - Field Studies, Energy Efficient Ventilation for Commercial 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 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 to combined cycle 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
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 (HHV)	6,704
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 $3,560,292.

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	0.94	0.27	0.28
NewHoO	Constructing an Energy Efficient New Home - Home Owners	0.90	0.29	0.30
RDuct	Contractors Duct Education Program	0.78	0.86	1.14
HEPP	High Efficiency Pool Pump	0.37	0.72	1.98
RRefri	Remove Second Refrigerator	0.33	224	1.00
RFreezer	Remove Second Freezer	0.33	228	1.00
JHP	Low-Income Residential Audit - Jacksonville Housing Partnership	0.42	18.5	1.00
JHA	Low-Income Residential Audit - Jacksonville Housing Authority	0.41	20.1	1.00
DLC	Direct Load Control	0.17	0.51	1.00
	Commercial/Industrial			
ADS	Uncontrolled Airflow in Non-Residential Buildings	0.44	0.79	1.94
CCEL	Commercial Energy Efficient Lighting	0.60	9.73	24.4
OPBC	Off Peak Battery Charging – FPL	0.46	0.57	1.23

5.2 Analysis of Results

Although every DSM measure failed the Rate Impact Test, JEA proposes the continuation of select conservation measures and has packaged the measures into

programs. 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:

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. 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 programs. 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 participants 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 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. Associated energy and demand savings were estimated on a per customer per year basis and used for determining

the savings associated with the program. 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 120 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 120 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 200 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 3,000 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 4,000 meter checks resulting in 2,000 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 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 three years at the JEA Training Center and will be offered to a group of 10 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 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 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 100 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
Annual Participation Goals for Residential Participants

DSM Program / *Measure*	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Contractor, Building Inspector and Architect Continuing Education: *Constructing an Energy Efficient Home – Professionals*	195	195	195	195	195	195	195	195	195	195
Contractor, Building Inspector and Architect Continuing Education: *Constructing an Energy Efficient Home - Home Owners*	65	65	65	65	65	65	65	65	65	65
Contractor, Building Inspector and Architect Continuing Education: *Energy Efficiency Improvement Workshops*	20	20	20	20	20	20	20	20	20	20
Energy Audits: *Jacksonville Housing Authority*	200	200	200	200	200	200	200	200	200	200
Energy Audits: *Jacksonville Housing Partnership*	120	120	120	120	120	120	120	120	120	120
Energy Audits: *Energy, Landscape, Water*	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Energy Audits: *Multi-Check*	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000

Table 7-2
Annual Participation Goals for Commercial Participants

DSM Program / Measure	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Contractor, Building Inspector and Architect Continuing Education: *Uncontrolled Airflow in Non-Residential Buildings*	25	0	25	0	25	0	25	0	25	0
Contractor, Building Inspector and Architect Continuing Education: *Uncontrolled Airflow Field Studies*	10	0	0	10	0	0	10	0	0	10
Contractor, Building Inspector and Architect Continuing Education: *Energy Efficient Ventilation for Commercial Buildings*	0	10	0	0	10	0	0	10	0	0
Contractor, Building Inspector and Architect Continuing Education: *High Performance Commercial Buildings Designs for Florida's First Coast*	50	50	50	50	50	50	50	50	50	50
Contractor, Building Inspector and Architect Continuing Education: *Industrial Technology Update*	50	50	50	50	50	50	50	50	50	50
Energy Audits: *Commercial/Industrial*	100	100	100	100	100	100	100	100	100	100

Appendix 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.

Appendix B:

Cost Effectiveness Results for DSM Measures

Appendix 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	70.94	$/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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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	65 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	195	195	1.69	1.69	1.69	1.69	1	1
2002	390	390	1.74	1.73	1.73	1.74	1	1
2003	585	585	1.78	1.78	1.78	1.78	1	1
2004	780	780	1.83	1.83	1.83	1.83	1	1
2005	975	975	1.88	1.87	1.87	1.88	1	1
2006	1170	1170	1.93	1.92	1.92	1.93	1	1
2007	1365	1365	1.98	1.97	1.97	1.98	1	1
2008	1560	1560	2.03	2.02	2.02	2.03	1	1
2009	1755	1755	2.08	2.08	2.08	2.08	1	1
2010	1950	1950	2.14	2.13	2.13	2.14	1	1
2011	2145	2145	2.19	2.18	2.18	2.19	1	1
2012	2340	2340	2.25	2.24	2.24	2.25	1	1
2013	2535	2535	2.31	2.30	2.30	2.31	1	1
2014	2730	2730	2.37	2.36	2.36	2.37	1	1
2015	2925	2925	2.43	2.42	2.42	2.43	1	1
2016	3120	3120	2.49	2.48	2.48	2.49	1	1
2017	3315	3315	2.56	2.55	2.55	2.56	1	1
2018	3510	3510	2.62	2.61	2.61	2.62	1	1
2019	3705	3705	2.69	2.68	2.68	2.69	1	1
2020	3900	3900	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

AFUDC Calculation

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	0	2.3%	0.0%

< -- COST DATA FOR CONSTRUCTION OF PLANT -- >

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: NewHoP

* UNIT SIZE OF AVOIDED GENERATION UNIT = 678 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $257

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	18	5,050	4	11	119	95	0	57
2006	0.0713	18	5,050	4	11	123	97	0	58
2007	0.0730	19	5,050	4	11	126	100	0	60
2008	0.0747	19	5,050	4	11	129	102	0	61
2009	0.0764	20	5,050	4	12	132	105	0	63
2010	0.0781	20	5,050	4	12	136	108	0	64
2011	0.0799	21	5,050	4	12	139	111	0	66
2012	0.0818	21	5,050	4	12	143	114	0	67
2013	0.0836	21	5,050	4	13	147	116	0	69
2014	0.0856	22	5,050	5	13	151	119	0	70
2015	0.0875	22	5,050	5	13	154	123	0	72
2016	0.0895	23	5,050	5	14	158	126	0	74
2017	0.0916	23	5,050	5	14	163	129	0	76
2018	0.0937	24	5,050	5	14	167	132	0	78
2019	0.0959	25	5,050	5	15	171	136	0	79
2020	0.0981	25	5,050	5	15	176	139	0	81
NOMINAL		341	80,805	70	202	2,334	1,853	0	1,095
NPV		261		54	155	1,784	1,417	0	838

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: NewHoP

780

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $5
* INSERVICE COSTS OF AVOIDED DIST. (000) = $30

(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	3
2003	0	0	0	0	0	0	5
2004	0	0	0	0	0	0	7
2005	0	2	2	2	8	10	9
2006	0	2	2	2	8	10	12
2007	0	2	2	2	8	10	14
2008	0	2	2	2	8	11	17
2009	0	2	2	2	9	11	19
2010	0	2	2	2	9	11	22
2011	0	2	2	2	9	11	25
2012	0	2	2	2	9	12	28
2013	0	2	3	3	9	12	31
2014	0	2	3	3	10	12	35
2015	0	2	3	3	10	12	38
2016	0	2	3	3	10	13	42
2017	0	2	3	3	10	13	46
2018	0	2	3	3	10	13	50
2019	0	2	3	3	11	14	54
2020	0	3	3	3	11	14	59
NOMINAL	6	34	40	40	149	189	518
NPV	5	26	31	31	114	144	384

* 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	55	1	0	0	1	1
2002	164	3	0	0	3	3
2003	274	5	0	0	5	5
2004	383	7	0	0	7	7
2005	493	9	0	0	9	9
2006	602	12	0	0	12	12
2007	712	14	0	0	14	14
2008	821	17	0	0	17	17
2009	931	19	0	0	19	19
2010	1,041	22	0	0	22	22
2011	1,150	25	0	0	25	25
2012	1,260	28	0	0	28	28
2013	1,369	31	0	0	31	31
2014	1,479	35	0	0	35	35
2015	1,588	38	0	0	38	38
2016	1,698	42	0	0	42	42
2017	1,807	46	0	0	46	46
2018	1,917	50	0	0	50	50
2019	2,026	54	0	0	54	54
2020	2,136	59	0	0	59	59
NOMINAL	21,906	518	0	0	518	518
NPV		384	0	0	384	384

* 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	14	0	14	0	0	0	253	0	253	51	1	3	4	0	0	0	0
2002	14	0	14	0	0	0	259	0	259	154	3	8	11	0	0	0	0
2003	14	0	14	0	0	0	265	0	265	257	5	14	19	0	0	0	0
2004	15	0	15	0	0	0	271	0	271	360	7	20	27	0	0	0	0
2005	0	0	0	0	0	0	277	0	277	463	9	26	35	0	0	0	0
2006	0	0	0	0	0	0	284	0	284	566	11	33	44	0	0	0	0
2007	0	0	0	0	0	0	290	0	290	669	13	40	53	0	0	0	0
2008	0	0	0	0	0	0	297	0	297	772	16	47	63	0	0	0	0
2009	0	0	0	0	0	0	304	0	304	875	18	55	73	0	0	0	0
2010	0	0	0	0	0	0	311	0	311	978	21	62	83	0	0	0	0
2011	0	0	0	0	0	0	318	0	318	1,081	24	71	94	0	0	0	0
2012	0	0	0	0	0	0	325	0	325	1,184	27	79	106	0	0	0	0
2013	0	0	0	0	0	0	332	0	332	1,287	30	88	118	0	0	0	0
2014	0	0	0	0	0	0	340	0	340	1,390	33	97	130	0	0	0	0
2015	0	0	0	0	0	0	348	0	348	1,493	36	107	143	0	0	0	0
2016	0	0	0	0	0	0	356	0	356	1,596	40	117	157	0	0	0	0
2017	0	0	0	0	0	0	364	0	364	1,699	44	127	171	0	0	0	0
2018	0	0	0	0	0	0	372	0	372	1,802	47	138	185	0	0	0	0
2019	0	0	0	0	0	0	381	0	381	1,905	51	149	200	0	0	0	0
2020	0	0	0	0	0	0	390	0	390	2,008	56	161	216	0	0	0	0
NOMINAL	57	0	57	0	0	0	6,336	0	6,336	20,592	490	1,440	1,931	0	0	0	0
NPV	55	0	55	0	0	0	5,061	0	5,061		364	1,070	1,434		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	14	253	0	267	0	0	1	0	1	(266)	(266)
2002	0	14	259	0	273	0	0	3	0	3	(270)	(530)
2003	0	14	265	0	279	0	0	5	0	5	(274)	(792)
2004	0	15	271	0	286	0	0	7	0	7	(279)	(1,053)
2005	0	0	277	0	277	57	12	9	0	78	(199)	(1,234)
2006	0	0	284	0	284	58	12	12	0	82	(202)	(1,414)
2007	0	0	290	0	290	60	13	14	0	86	(204)	(1,592)
2008	0	0	297	0	297	61	13	17	0	90	(206)	(1,768)
2009	0	0	304	0	304	63	13	19	0	95	(209)	(1,942)
2010	0	0	311	0	311	64	13	22	0	100	(211)	(2,114)
2011	0	0	318	0	318	66	14	25	0	104	(213)	(2,284)
2012	0	0	325	0	325	67	14	28	0	109	(216)	(2,452)
2013	0	0	332	0	332	69	14	31	0	115	(218)	(2,617)
2014	0	0	340	0	340	70	15	35	0	120	(220)	(2,781)
2015	0	0	348	0	348	72	15	38	0	126	(222)	(2,943)
2016	0	0	356	0	356	74	15	42	0	132	(224)	(3,102)
2017	0	0	364	0	364	76	16	46	0	138	(227)	(3,260)
2018	0	0	372	0	372	78	16	50	0	144	(229)	(3,415)
2019	0	0	381	0	381	79	16	54	0	150	(231)	(3,568)
2020	0	0	390	0	390	81	17	59	0	157	(233)	(3,719)
NOMINAL	0	57	6,336	0	6,393	1,095	229	518	0	1,842	(4,551)	
NPV	0	55	5,061	0	5,116	838	175	384	0	1,397	(3,719)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.27

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	4	0	0	0	4	253	0	0	253	(250)	(250)
2002	11	0	0	0	11	259	0	0	259	(248)	(492)
2003	19	0	0	0	19	265	0	0	265	(246)	(727)
2004	27	0	0	0	27	271	0	0	271	(244)	(955)
2005	35	0	0	0	35	277	0	0	277	(242)	(1,176)
2006	44	0	0	0	44	284	0	0	284	(240)	(1,390)
2007	53	0	0	0	53	290	0	0	290	(237)	(1,597)
2008	63	0	0	0	63	297	0	0	297	(234)	(1,796)
2009	73	0	0	0	73	304	0	0	304	(231)	(1,989)
2010	83	0	0	0	83	311	0	0	311	(227)	(2,174)
2011	94	0	0	0	94	318	0	0	318	(223)	(2,352)
2012	106	0	0	0	106	325	0	0	325	(219)	(2,523)
2013	118	0	0	0	118	332	0	0	332	(215)	(2,686)
2014	130	0	0	0	130	340	0	0	340	(210)	(2,842)
2015	143	0	0	0	143	348	0	0	348	(205)	(2,991)
2016	157	0	0	0	157	356	0	0	356	(199)	(3,133)
2017	171	0	0	0	171	364	0	0	364	(194)	(3,268)
2018	185	0	0	0	185	372	0	0	372	(187)	(3,395)
2019	200	0	0	0	200	381	0	0	381	(181)	(3,515)
2020	216	0	0	0	216	390	0	0	390	(174)	(3,627)
NOMINAL	1,931	0	0	0	1,931	6,336	0	0	6,336	(4,405)	
NPV	1,434	0	0	0	1,434	5,061	0	0	5,061	(3,627)	

In-service year of generation unit: 2005
Discount rate: 2.30%

Benefit/Cost Ratio: 0.28

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	14	0	4	0	17	1	0	0	0	1	(16)	(16)
2002	0	14	0	11	0	25	3	0	0	0	3	(22)	(38)
2003	0	14	0	19	0	33	5	0	0	0	5	(28)	(65)
2004	0	15	0	27	0	41	7	0	0	0	7	(34)	(97)
2005	0	0	0	35	0	35	66	12	0	0	78	43	(58)
2006	0	0	0	44	0	44	70	12	0	0	82	38	(24)
2007	0	0	0	53	0	53	74	13	0	0	86	33	5
2008	0	0	0	63	0	63	78	13	0	0	90	28	28
2009	0	0	0	73	0	73	82	13	0	0	95	22	47
2010	0	0	0	83	0	83	86	13	0	0	100	16	60
2011	0	0	0	94	0	94	91	14	0	0	104	10	68
2012	0	0	0	106	0	106	95	14	0	0	109	4	71
2013	0	0	0	118	0	118	100	14	0	0	115	(3)	69
2014	0	0	0	130	0	130	105	15	0	0	120	(10)	61
2015	0	0	0	143	0	143	111	15	0	0	126	(17)	49
2016	0	0	0	157	0	157	116	15	0	0	132	(25)	31
2017	0	0	0	171	0	171	122	16	0	0	138	(33)	8
2018	0	0	0	185	0	185	128	16	0	0	144	(41)	(20)
2019	0	0	0	200	0	200	134	16	0	0	150	(50)	(53)
2020	0	0	0	216	0	216	140	17	0	0	157	(59)	(92)
NOMINAL	0	57	0	1,931	0	1,988	1,613	229	0	0	1,842	(146)	
NPV	0	55	0	1,434	0	1,489	1,222	175	0	0	1,397	(92)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.94

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	159.90	$/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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	14.26372	$/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	2.134932	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) 65 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	65	65	1.69	1.69	1.69	1.69	1	1
2002	130	130	1.74	1.73	1.73	1.74	1	1
2003	195	195	1.78	1.78	1.78	1.78	1	1
2004	260	260	1.83	1.83	1.83	1.83	1	1
2005	325	325	1.88	1.87	1.87	1.88	1	1
2006	390	390	1.93	1.92	1.92	1.93	1	1
2007	455	455	1.98	1.97	1.97	1.98	1	1
2008	520	520	2.03	2.02	2.02	2.03	1	1
2009	585	585	2.08	2.08	2.08	2.08	1	1
2010	650	650	2.14	2.13	2.13	2.14	1	1
2011	715	715	2.19	2.18	2.18	2.19	1	1
2012	780	780	2.25	2.24	2.24	2.25	1	1
2013	845	845	2.31	2.30	2.30	2.31	1	1
2014	910	910	2.37	2.36	2.36	2.37	1	1
2015	975	975	2.43	2.42	2.42	2.43	1	1
2016	1040	1040	2.49	2.48	2.48	2.49	1	1
2017	1105	1105	2.56	2.55	2.55	2.56	1	1
2018	1170	1170	2.62	2.61	2.61	2.62	1	1
2019	1235	1235	2.69	2.68	2.68	2.69	1	1
2020	1300	1300	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

AFUDC Calculation

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	0	2.3%	0.0%

< -- COST DATA FOR CONSTRUCTION OF PLANT -->

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: NewHoO

* UNIT SIZE OF AVOIDED GENERATION UNIT = 226 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $86

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	6	1,683	1	4	40	32	0	19
2006	0.0713	6	1,683	1	4	41	32	0	19
2007	0.0730	6	1,683	1	4	42	33	0	20
2008	0.0747	6	1,683	1	4	43	34	0	20
2009	0.0764	7	1,683	1	4	44	35	0	21
2010	0.0781	7	1,683	1	4	45	36	0	21
2011	0.0799	7	1,683	1	4	46	37	0	22
2012	0.0818	7	1,683	1	4	48	38	0	22
2013	0.0836	7	1,683	1	4	49	39	0	23
2014	0.0856	7	1,683	2	4	50	40	0	23
2015	0.0875	7	1,683	2	4	51	41	0	24
2016	0.0895	8	1,683	2	5	53	42	0	25
2017	0.0916	8	1,683	2	5	54	43	0	25
2018	0.0937	8	1,683	2	5	56	44	0	26
2019	0.0959	8	1,683	2	5	57	45	0	26
2020	0.0981	8	1,683	2	5	59	46	0	27
NOMINAL		114	26,935	23	67	778	618	0	365
NPV		87		18	52	595	472	0	279

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: NewHoO

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

* INSERVICE COSTS OF AVOIDED DIST. (000) = $10

(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	2
2004	0	0	0	0	0	0	2
2005	0	1	1	1	3	3	3
2006	0	1	1	1	3	3	4
2007	0	1	1	1	3	3	5
2008	0	1	1	1	3	4	6
2009	0	1	1	1	3	4	6
2010	0	1	1	1	3	4	7
2011	0	1	1	1	3	4	8
2012	0	1	1	1	3	4	9
2013	0	1	1	1	3	4	10
2014	0	1	1	1	3	4	12
2015	0	1	1	1	3	4	13
2016	0	1	1	1	3	4	14
2017	0	1	1	1	3	4	15
2018	0	1	1	1	3	4	17
2019	0	1	1	1	4	5	18
2020	0	1	1	1	4	5	20
NOMINAL	2	11	13	13	50	63	173
NPV	2	9	10	10	38	48	128

* 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	18	0	0	0	0	0
2002	55	1	0	0	1	1
2003	91	2	0	0	2	2
2004	128	2	0	0	2	2
2005	164	3	0	0	3	3
2006	201	4	0	0	4	4
2007	237	5	0	0	5	5
2008	274	6	0	0	6	6
2009	310	6	0	0	6	6
2010	347	7	0	0	7	7
2011	383	8	0	0	8	8
2012	420	9	0	0	9	9
2013	456	10	0	0	10	10
2014	493	12	0	0	12	12
2015	529	13	0	0	13	13
2016	566	14	0	0	14	14
2017	602	15	0	0	15	15
2018	639	17	0	0	17	17
2019	675	18	0	0	18	18
2020	712	20	0	0	20	20
NOMINAL	7,302	173	0	0	173	173
NPV		128	0	0	128	128

* 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	10	0	10	0	0	0	79	0	79	17	0	1	1	0	0	0	0
2002	11	0	11	0	0	0	80	0	80	51	1	3	4	0	0	0	0
2003	11	0	11	0	0	0	82	0	82	86	2	5	6	0	0	0	0
2004	11	0	11	0	0	0	84	0	84	120	2	7	9	0	0	0	0
2005	0	0	0	0	0	0	86	0	86	154	3	9	12	0	0	0	0
2006	0	0	0	0	0	0	88	0	88	189	4	11	15	0	0	0	0
2007	0	0	0	0	0	0	90	0	90	223	4	13	18	0	0	0	0
2008	0	0	0	0	0	0	92	0	92	257	5	16	21	0	0	0	0
2009	0	0	0	0	0	0	94	0	94	292	6	18	24	0	0	0	0
2010	0	0	0	0	0	0	96	0	96	326	7	21	28	0	0	0	0
2011	0	0	0	0	0	0	99	0	99	360	8	24	31	0	0	0	0
2012	0	0	0	0	0	0	101	0	101	395	9	26	35	0	0	0	0
2013	0	0	0	0	0	0	103	0	103	429	10	29	39	0	0	0	0
2014	0	0	0	0	0	0	106	0	106	463	11	32	43	0	0	0	0
2015	0	0	0	0	0	0	108	0	108	498	12	36	48	0	0	0	0
2016	0	0	0	0	0	0	111	0	111	532	13	39	52	0	0	0	0
2017	0	0	0	0	0	0	113	0	113	566	15	42	57	0	0	0	0
2018	0	0	0	0	0	0	116	0	116	601	16	46	62	0	0	0	0
2019	0	0	0	0	0	0	118	0	118	635	17	50	67	0	0	0	0
2020	0	0	0	0	0	0	121	0	121	669	19	54	72	0	0	0	0
NOMINAL	43	0	43	0	0	0	1,967	0	1,967	6,864	163	480	644	0	0	0	0
NPV	42	0	42	0	0	0	1,571	0	1,571		121	357	478		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	10	79	0	89	0	0	0	0	0	(89)	(89)
2002	0	11	80	0	91	0	0	1	0	1	(90)	(177)
2003	0	11	82	0	93	0	0	2	0	2	(91)	(264)
2004	0	11	84	0	95	0	0	2	0	2	(93)	(351)
2005	0	0	86	0	86	19	4	3	0	26	(60)	(406)
2006	0	0	88	0	88	19	4	4	0	27	(61)	(460)
2007	0	0	90	0	90	20	4	5	0	29	(61)	(513)
2008	0	0	92	0	92	20	4	6	0	30	(62)	(566)
2009	0	0	94	0	94	21	4	6	0	32	(63)	(618)
2010	0	0	96	0	96	21	4	7	0	33	(63)	(670)
2011	0	0	99	0	99	22	5	8	0	35	(64)	(721)
2012	0	0	101	0	101	22	5	9	0	36	(64)	(771)
2013	0	0	103	0	103	23	5	10	0	38	(65)	(820)
2014	0	0	106	0	106	23	5	12	0	40	(66)	(869)
2015	0	0	108	0	108	24	5	13	0	42	(66)	(917)
2016	0	0	111	0	111	25	5	14	0	44	(67)	(965)
2017	0	0	113	0	113	25	5	15	0	46	(67)	(1,011)
2018	0	0	116	0	116	26	5	17	0	48	(68)	(1,057)
2019	0	0	118	0	118	26	5	18	0	50	(68)	(1,103)
2020	0	0	121	0	121	27	6	20	0	52	(69)	(1,147)
NOMINAL	0	43	1,967	0	2,010	365	76	173	0	614	(1,396)	
NPV	0	42	1,571	0	1,613	279	58	128	0	466	(1,147)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.29

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	1	0	0	0	1	79	0	0	79	(77)	(77)
2002	4	0	0	0	4	80	0	0	80	(77)	(152)
2003	6	0	0	0	6	82	0	0	82	(76)	(225)
2004	9	0	0	0	9	84	0	0	84	(75)	(295)
2005	12	0	0	0	12	86	0	0	86	(74)	(363)
2006	15	0	0	0	15	88	0	0	88	(73)	(429)
2007	18	0	0	0	18	90	0	0	90	(72)	(492)
2008	21	0	0	0	21	92	0	0	92	(71)	(553)
2009	24	0	0	0	24	94	0	0	94	(70)	(611)
2010	28	0	0	0	28	96	0	0	96	(69)	(667)
2011	31	0	0	0	31	99	0	0	99	(67)	(720)
2012	35	0	0	0	35	101	0	0	101	(66)	(771)
2013	39	0	0	0	39	103	0	0	103	(64)	(820)
2014	43	0	0	0	43	106	0	0	106	(62)	(866)
2015	48	0	0	0	48	108	0	0	108	(60)	(910)
2016	52	0	0	0	52	111	0	0	111	(58)	(952)
2017	57	0	0	0	57	113	0	0	113	(56)	(991)
2018	62	0	0	0	62	116	0	0	116	(54)	(1,028)
2019	67	0	0	0	67	118	0	0	118	(51)	(1,062)
2020	72	0	0	0	72	121	0	0	121	(49)	(1,094)
NOMINAL	644	0	0	0	644	1,967	0	0	1,967	(1,324)	
NPV	478	0	0	0	478	1,571	0	0	1,571	(1,094)	

In-service year of generation unit: 2005
Discount rate: 2.30%

Benefit/Cost Ratio: 0.30

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	10	0	1	0	12	0	0	0	0	0	(11)	(11)
2002	0	11	0	4	0	14	1	0	0	0	1	(13)	(24)
2003	0	11	0	6	0	17	2	0	0	0	2	(15)	(39)
2004	0	11	0	9	0	20	2	0	0	0	2	(18)	(56)
2005	0	0	0	12	0	12	22	4	0	0	26	14	(43)
2006	0	0	0	15	0	15	23	4	0	0	27	13	(31)
2007	0	0	0	18	0	18	25	4	0	0	29	11	(22)
2008	0	0	0	21	0	21	26	4	0	0	30	9	(14)
2009	0	0	0	24	0	24	27	4	0	0	32	7	(8)
2010	0	0	0	28	0	28	29	4	0	0	33	5	(3)
2011	0	0	0	31	0	31	30	5	0	0	35	3	(0)
2012	0	0	0	35	0	35	32	5	0	0	36	1	1
2013	0	0	0	39	0	39	33	5	0	0	38	(1)	(0)
2014	0	0	0	43	0	43	35	5	0	0	40	(3)	(3)
2015	0	0	0	48	0	48	37	5	0	0	42	(6)	(7)
2016	0	0	0	52	0	52	39	5	0	0	44	(8)	(13)
2017	0	0	0	57	0	57	41	5	0	0	46	(11)	(20)
2018	0	0	0	62	0	62	43	5	0	0	48	(14)	(30)
2019	0	0	0	67	0	67	45	5	0	0	50	(17)	(41)
2020	0	0	0	72	0	72	47	6	0	0	52	(20)	(54)
NOMINAL	0	43	0	644	0	687	538	76	0	0	614	(73)	
NPV	0	42	0	478	0	519	407	58	0	0	466	(54)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.90

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	507.89	$/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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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	65 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	92	92	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: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

	<-- COST DATA FOR CONSTRUCTION OF PLANT -->			TEMP DATA/NOT USED BY PROGRAM	
	NUMBER OF YEARS BEFORE	ANNUAL PLANT COST ESCALATION	YEARLY	CT	CC
YEAR	INSERVICE	RATE (%)	EXPENDITURE (%)		
				0.0%	0.0%
				0.0%	0.0%
				0.0%	20.3%
1996	-9	0.0%	0.0%	55.3%	50.2%
1997	-8	0.0%	0.0%	44.7%	29.5%
1998	-7	0.0%	0.0%	0.0%	0.0%
1999	-6	0.0%	0.0%		
2000	-5	0.0%	0.0%	1	1
2001	-4	0.0%	0.0%		
2002	-3	0.0%	0.0%		
2003	-2	2.3%	25.0%		
2004	-1	2.3%	75.0%		
2005	0	2.3%	0.0%		

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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	2	642	0	1	15	12	0	7
2006	0.0713	2	642	0	1	16	12	0	7
2007	0.0730	2	642	0	1	16	13	0	8
2008	0.0747	2	642	0	1	16	13	0	8
2009	0.0764	2	642	1	1	17	13	0	8
2010	0.0781	3	642	1	2	17	14	0	8
2011	0.0799	3	642	1	2	18	14	0	8
2012	0.0818	3	642	1	2	18	14	0	9
2013	0.0836	3	642	1	2	19	15	0	9
2014	0.0856	3	642	1	2	19	15	0	9
2015	0.0875	3	642	1	2	20	16	0	9
2016	0.0895	3	642	1	2	20	16	0	9
2017	0.0916	3	642	1	2	21	16	0	10
2018	0.0937	3	642	1	2	21	17	0	10
2019	0.0959	3	642	1	2	22	17	0	10
2020	0.0981	3	642	1	2	22	18	0	10
NOMINAL		43	10,269	9	26	297	235	0	139
NPV		33		7	20	227	180	0	106

* 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) = $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	0	0	1
2005	0	0	0	0	1	2	1
2006	0	0	0	0	1	2	2
2007	0	0	0	0	1	2	2
2008	0	0	0	0	1	2	2
2009	0	0	0	0	1	2	2
2010	0	0	0	0	1	2	3
2011	0	0	0	0	1	2	3
2012	0	0	0	0	1	2	3
2013	0	0	0	0	1	2	3
2014	0	0	0	0	2	2	4
2015	0	0	0	0	2	2	4
2016	0	0	0	0	2	2	4
2017	0	0	0	0	2	2	5
2018	0	0	0	0	2	2	5
2019	0	0	0	0	2	2	6
2020	0	0	0	0	2	2	6
NOMINAL	1	5	6	6	24	30	59
NPV	1	4	5	5	18	23	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	28	0	0	0	0	0
2002	57	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	2,532	59	0	0	59	59
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	47	0	47	0	0	0	37	0	37	27	0	1	2	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	54	1	3	4	0	0	0	0
2003	0	0	0	0	0	0	0	0	0	54	1	3	4	0	0	0	0
2004	16	0	16	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	63	0	63	0	0	0	177	0	177	2,380	55	163	219	0	0	0	0
NPV	62	0	62	0	0	0	145	0	145		42	124	166		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	47	37	0	84	0	0	0	0	0	(83)	(83)
2002	0	0	0	0	0	0	0	1	0	1	1	(82)
2003	0	0	0	0	0	0	0	1	0	1	1	(81)
2004	0	16	13	0	29	0	0	1	0	1	(28)	(107)
2005	0	0	0	0	0	7	2	1	0	11	11	(98)
2006	0	0	13	0	13	7	2	2	0	11	(3)	(100)
2007	0	0	0	0	0	8	2	2	0	11	11	(90)
2008	0	0	14	0	14	8	2	2	0	12	(2)	(92)
2009	0	0	0	0	0	8	2	2	0	12	12	(82)
2010	0	0	15	0	15	8	2	3	0	13	(2)	(83)
2011	0	0	0	0	0	8	2	3	0	13	13	(72)
2012	0	0	15	0	15	9	2	3	0	14	(2)	(74)
2013	0	0	0	0	0	9	2	3	0	14	14	(63)
2014	0	0	16	0	16	9	2	4	0	15	(1)	(64)
2015	0	0	0	0	0	9	2	4	0	16	16	(52)
2016	0	0	17	0	17	9	2	4	0	16	(1)	(53)
2017	0	0	0	0	0	10	2	5	0	17	17	(41)
2018	0	0	18	0	18	10	3	5	0	18	(0)	(41)
2019	0	0	0	0	0	10	3	6	0	18	18	(29)
2020	0	0	19	0	19	10	3	6	0	19	0	(29)
NOMINAL	0	63	177	0	240	139	36	59	0	234	(6)	
NPV	0	62	145	0	207	106	28	44	0	178	(29)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.86

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	2	0	0	0	2	37	0	0	37	(35)	(35)
2002	4	0	0	0	4	0	0	0	0	4	(31)
2003	4	0	0	0	4	0	0	0	0	4	(28)
2004	5	0	0	0	5	13	0	0	13	(8)	(35)
2005	5	0	0	0	5	0	0	0	0	5	(30)
2006	6	0	0	0	6	13	0	0	13	(7)	(37)
2007	7	0	0	0	7	0	0	0	0	7	(31)
2008	8	0	0	0	8	14	0	0	14	(6)	(36)
2009	9	0	0	0	9	0	0	0	0	9	(29)
2010	10	0	0	0	10	15	0	0	15	(5)	(33)
2011	11	0	0	0	11	0	0	0	0	11	(24)
2012	12	0	0	0	12	15	0	0	15	(4)	(27)
2013	13	0	0	0	13	0	0	0	0	13	(17)
2014	14	0	0	0	14	16	0	0	16	(2)	(19)
2015	15	0	0	0	15	0	0	0	0	15	(8)
2016	16	0	0	0	16	17	0	0	17	(1)	(8)
2017	18	0	0	0	18	0	0	0	0	18	4
2018	19	0	0	0	19	18	0	0	18	1	5
2019	20	0	0	0	20	0	0	0	0	20	18
2020	22	0	0	0	22	19	0	0	19	3	20
NOMINAL	219	0	0	0	219	177	0	0	177	42	
NPV	166	0	0	0	166	145	0	0	145	20	

In-service year of generation unit: 2005
Discount rate: 2.30%

Benefit/Cost Ratio: 1.14

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	47	0	2	0	49	0	0	0	0	0	(48)	(48)
2002	0	0	0	4	0	4	1	0	0	0	1	(3)	(51)
2003	0	0	0	4	0	4	1	0	0	0	1	(3)	(54)
2004	0	16	0	5	0	21	1	0	0	0	1	(20)	(72)
2005	0	0	0	5	0	5	9	2	0	0	11	5	(67)
2006	0	0	0	6	0	6	9	2	0	0	11	5	(63)
2007	0	0	0	7	0	7	9	2	0	0	11	4	(59)
2008	0	0	0	8	0	8	10	2	0	0	12	4	(56)
2009	0	0	0	9	0	9	10	2	0	0	12	4	(53)
2010	0	0	0	10	0	10	11	2	0	0	13	3	(50)
2011	0	0	0	11	0	11	11	2	0	0	13	3	(48)
2012	0	0	0	12	0	12	12	2	0	0	14	2	(47)
2013	0	0	0	13	0	13	12	2	0	0	14	2	(45)
2014	0	0	0	14	0	14	13	2	0	0	15	1	(45)
2015	0	0	0	15	0	15	13	2	0	0	16	0	(44)
2016	0	0	0	16	0	16	14	2	0	0	16	(0)	(44)
2017	0	0	0	18	0	18	14	2	0	0	17	(1)	(45)
2018	0	0	0	19	0	19	15	3	0	0	18	(1)	(46)
2019	0	0	0	20	0	20	16	3	0	0	18	(2)	(47)
2020	0	0	0	22	0	22	16	3	0	0	19	(3)	(49)
NOMINAL	0	63	0	219	0	282	198	36	0	0	234	(48)	
NPV	0	62	0	166	0	228	151	28	0	0	178	(49)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.78

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	10.45	$/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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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	65 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	751	751	1.69	1.69	1.69	1.69	1	1
2002	1530	1530	1.74	1.73	1.73	1.74	1	1
2003	2342	2342	1.78	1.78	1.78	1.78	1	1
2004	3186	3186	1.83	1.83	1.83	1.83	1	1
2005	4062	4062	1.88	1.87	1.87	1.88	1	1
2006	4969	4969	1.93	1.92	1.92	1.93	1	1
2007	5908	5908	1.98	1.97	1.97	1.98	1	1
2008	6878	6878	2.03	2.02	2.02	2.03	1	1
2009	7880	7880	2.08	2.08	2.08	2.08	1	1
2010	8913	8913	2.14	2.13	2.13	2.14	1	1
2011	9982.155	9982.155	2.19	2.18	2.18	2.19	1	1
2012	11088.73043	11088.73043	2.25	2.24	2.24	2.25	1	1
2013	12234.03599	12234.03599	2.31	2.30	2.30	2.31	1	1
2014	13419.42725	13419.42725	2.37	2.36	2.36	2.37	1	1
2015	14646.3072	14646.3072	2.43	2.42	2.42	2.43	1	1
2016	15916.12796	15916.12796	2.49	2.48	2.48	2.49	1	1
2017	17230.39243	17230.39243	2.56	2.55	2.55	2.56	1	1
2018	18590.65617	18590.65617	2.62	2.61	2.61	2.62	1	1
2019	19998.52913	19998.52913	2.69	2.68	2.68	2.69	1	1
2020	21455.67765	21455.67765	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

YEAR	< -- COST DATA FOR CONSTRUCTION OF PLANT -- > NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)	TEMP DATA/NOT USED BY PROGRAM CT	CC
				0.0%	0.0%
				0.0%	0.0%
				0.0%	20.3%
1996	-9	0.0%	0.0%	55.3%	50.2%
1997	-8	0.0%	0.0%	44.7%	29.5%
1998	-7	0.0%	0.0%	0.0%	0.0%
1999	-6	0.0%	0.0%		
2000	-5	0.0%	0.0%	1	1
2001	-4	0.0%	0.0%		
2002	-3	0.0%	0.0%		
2003	-2	2.3%	25.0%		
2004	-1	2.3%	75.0%		
2005	0	2.3%	0.0%		

AVOIDED GENERATION UNIT BENEFITS

PROGRAM: HEPP

* UNIT SIZE OF AVOIDED GENERATION UNIT = 177 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $67

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	5	1,315	1	3	31	25	0	15
2006	0.0713	5	1,315	1	3	32	25	0	15
2007	0.0730	5	1,315	1	3	33	26	0	16
2008	0.0747	5	1,315	1	3	34	27	0	16
2009	0.0764	5	1,315	1	3	34	27	0	16
2010	0.0781	5	1,315	1	3	35	28	0	17
2011	0.0799	5	1,315	1	3	36	29	0	17
2012	0.0818	5	1,315	1	3	37	30	0	17
2013	0.0836	6	1,315	1	3	38	30	0	18
2014	0.0856	6	1,315	1	3	39	31	0	18
2015	0.0875	6	1,315	1	3	40	32	0	19
2016	0.0895	6	1,315	1	4	41	33	0	19
2017	0.0916	6	1,315	1	4	42	34	0	20
2018	0.0937	6	1,315	1	4	43	34	0	20
2019	0.0959	6	1,315	1	4	45	35	0	21
2020	0.0981	7	1,315	1	4	46	36	0	21
NOMINAL		89	21,040	18	53	608	482	0	285
NPV		68		14	40	465	369	0	218

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: HEPP

3186

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

* INSERVICE COSTS OF AVOIDED DIST. (000) = $8

(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	4
2003	0	0	0	0	0	0	7
2004	0	0	0	0	0	0	10
2005	0	0	1	1	2	3	13
2006	0	0	1	1	2	3	17
2007	0	0	1	1	2	3	21
2008	0	0	1	1	2	3	25
2009	0	0	1	1	2	3	30
2010	0	1	1	1	2	3	35
2011	0	1	1	1	2	3	41
2012	0	1	1	1	2	3	46
2013	0	1	1	1	2	3	53
2014	0	1	1	1	2	3	59
2015	0	1	1	1	2	3	67
2016	0	1	1	1	3	3	75
2017	0	1	1	1	3	3	83
2018	0	1	1	1	3	3	92
2019	0	1	1	1	3	3	102
2020	0	1	1	1	3	4	112
NOMINAL	2	9	10	10	38	48	893
NPV	1	7	8	8	29	37	656

* 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	74	1	0	0	1	1
2002	224	4	0	0	4	4
2003	380	7	0	0	7	7
2004	543	10	0	0	10	10
2005	712	13	0	0	13	13
2006	887	17	0	0	17	17
2007	1,068	21	0	0	21	21
2008	1,255	25	0	0	25	25
2009	1,449	30	0	0	30	30
2010	1,649	35	0	0	35	35
2011	1,855	41	0	0	41	41
2012	2,069	46	0	0	46	46
2013	2,290	53	0	0	53	53
2014	2,519	59	0	0	59	59
2015	2,756	67	0	0	67	67
2016	3,001	75	0	0	75	75
2017	3,255	83	0	0	83	83
2018	3,517	92	0	0	92	92
2019	3,789	102	0	0	102	102
2020	4,070	112	0	0	112	112
NOMINAL	37,362	893	0	0	893	893
NPV		656	0	0	656	656

* 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	8	0	8	0	0	0	43	0	43	69	1	4	5	0	0	0	0
2002	8	0	8	0	0	0	46	0	46	211	4	11	15	0	0	0	0
2003	9	0	9	0	0	0	49	0	49	357	6	19	26	0	0	0	0
2004	9	0	9	0	0	0	52	0	52	510	9	28	38	0	0	0	0
2005	0	0	0	0	0	0	55	0	55	669	13	38	51	0	0	0	0
2006	0	0	0	0	0	0	58	0	58	834	16	49	65	0	0	0	0
2007	0	0	0	0	0	0	62	0	62	1,004	20	60	80	0	0	0	0
2008	0	0	0	0	0	0	65	0	65	1,180	24	72	96	0	0	0	0
2009	0	0	0	0	0	0	69	0	69	1,362	28	85	113	0	0	0	0
2010	0	0	0	0	0	0	73	0	73	1,550	33	99	132	0	0	0	0
2011	0	0	0	0	0	0	77	0	77	1,744	38	114	152	0	0	0	0
2012	0	0	0	0	0	0	82	0	82	1,945	44	130	174	0	0	0	0
2013	0	0	0	0	0	0	87	0	87	2,153	50	147	197	0	0	0	0
2014	0	0	0	0	0	0	92	0	92	2,368	56	165	222	0	0	0	0
2015	0	0	0	0	0	0	97	0	97	2,590	63	185	248	0	0	0	0
2016	0	0	0	0	0	0	103	0	103	2,821	71	206	277	0	0	0	0
2017	0	0	0	0	0	0	109	0	109	3,059	78	229	307	0	0	0	0
2018	0	0	0	0	0	0	115	0	115	3,306	87	253	340	0	0	0	0
2019	0	0	0	0	0	0	122	0	122	3,562	96	279	375	0	0	0	0
2020	0	0	0	0	0	0	129	0	129	3,826	106	306	412	0	0	0	0
NOMINAL	35	0	35	0	0	0	1,586	0	1,586	35,121	844	2,478	3,322	0	0	0	0
NPV	33	0	33	0	0	0	1,235	0	1,235		621	1,825	2,446		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	8	43	0	51	0	0	1	0	1	(50)	(50)
2002	0	8	46	0	54	0	0	4	0	4	(50)	(99)
2003	0	9	49	0	58	0	0	7	0	7	(51)	(148)
2004	0	9	52	0	61	0	0	10	0	10	(52)	(196)
2005	0	0	55	0	55	15	3	13	0	31	(24)	(218)
2006	0	0	58	0	58	15	3	17	0	35	(23)	(239)
2007	0	0	62	0	62	16	3	21	0	40	(22)	(258)
2008	0	0	65	0	65	16	3	25	0	45	(21)	(276)
2009	0	0	69	0	69	16	3	30	0	50	(19)	(292)
2010	0	0	73	0	73	17	3	35	0	55	(18)	(306)
2011	0	0	77	0	77	17	4	41	0	61	(16)	(319)
2012	0	0	82	0	82	17	4	46	0	67	(14)	(330)
2013	0	0	87	0	87	18	4	53	0	74	(12)	(340)
2014	0	0	92	0	92	18	4	59	0	82	(10)	(347)
2015	0	0	97	0	97	19	4	67	0	89	(8)	(353)
2016	0	0	103	0	103	19	4	75	0	98	(5)	(357)
2017	0	0	109	0	109	20	4	83	0	107	(2)	(358)
2018	0	0	115	0	115	20	4	92	0	116	1	(357)
2019	0	0	122	0	122	21	4	102	0	127	5	(354)
2020	0	0	129	0	129	21	4	112	0	138	8	(349)
NOMINAL	0	35	1,586	0	1,620	285	58	893	0	1,236	(384)	
NPV	0	33	1,235	0	1,268	218	45	656	0	919	(349)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.72

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	5	0	0	0	5	43	0	0	43	(38)	(38)
2002	15	0	0	0	15	46	0	0	46	(31)	(69)
2003	26	0	0	0	26	49	0	0	49	(23)	(91)
2004	38	0	0	0	38	52	0	0	52	(14)	(104)
2005	51	0	0	0	51	55	0	0	55	(5)	(108)
2006	65	0	0	0	65	58	0	0	58	6	(103)
2007	80	0	0	0	80	62	0	0	62	18	(87)
2008	96	0	0	0	96	65	0	0	65	30	(61)
2009	113	0	0	0	113	69	0	0	69	44	(25)
2010	132	0	0	0	132	73	0	0	73	59	24
2011	152	0	0	0	152	77	0	0	77	75	83
2012	174	0	0	0	174	82	0	0	82	92	155
2013	197	0	0	0	197	87	0	0	87	110	239
2014	222	0	0	0	222	92	0	0	92	130	335
2015	248	0	0	0	248	97	0	0	97	151	445
2016	277	0	0	0	277	103	0	0	103	174	569
2017	307	0	0	0	307	109	0	0	109	198	707
2018	340	0	0	0	340	115	0	0	115	225	859
2019	375	0	0	0	375	122	0	0	122	253	1,027
2020	412	0	0	0	412	129	0	0	129	283	1,211
NOMINAL	3,322	0	0	0	3,322	1,586	0	0	1,586	1,737	
NPV	2,446	0	0	0	2,446	1,235	0	0	1,235	1,211	

In-service year of generation unit: 2005
Discount rate: 2.30%

Benefit/Cost Ratio: 1.98

RATE IMPACT TEST
PROGRAM: HEPP

(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	8	0	5	0	13	1	0	0	0	1	(11)	(11)
2002	0	8	0	15	0	23	4	0	0	0	4	(19)	(30)
2003	0	9	0	26	0	35	7	0	0	0	7	(28)	(57)
2004	0	9	0	38	0	47	10	0	0	0	10	(37)	(92)
2005	0	0	0	51	0	51	28	3	0	0	31	(20)	(110)
2006	0	0	0	65	0	65	32	3	0	0	35	(29)	(136)
2007	0	0	0	80	0	80	37	3	0	0	40	(40)	(171)
2008	0	0	0	96	0	96	41	3	0	0	45	(51)	(214)
2009	0	0	0	113	0	113	46	3	0	0	50	(64)	(267)
2010	0	0	0	132	0	132	52	3	0	0	55	(77)	(330)
2011	0	0	0	152	0	152	58	4	0	0	61	(91)	(403)
2012	0	0	0	174	0	174	64	4	0	0	67	(106)	(485)
2013	0	0	0	197	0	197	71	4	0	0	74	(123)	(579)
2014	0	0	0	222	0	222	78	4	0	0	82	(140)	(683)
2015	0	0	0	248	0	248	86	4	0	0	89	(159)	(798)
2016	0	0	0	277	0	277	94	4	0	0	98	(179)	(925)
2017	0	0	0	307	0	307	103	4	0	0	107	(200)	(1,065)
2018	0	0	0	340	0	340	112	4	0	0	116	(224)	(1,217)
2019	0	0	0	375	0	375	122	4	0	0	127	(248)	(1,382)
2020	0	0	0	412	0	412	133	4	0	0	138	(275)	(1,560)
NOMINAL	0	35	0	3,322	0	3,357	1,178	58	0	0	1,236	(2,121)	
NPV	0	33	0	2,446	0	2,479	874	45	0	0	919	(1,560)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.37

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	10.45	$/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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	65 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	751	751	1.69	1.69	1.69	1.69	1	1
2002	1530	1530	1.74	1.73	1.73	1.74	1	1
2003	2342	2342	1.78	1.78	1.78	1.78	1	1
2004	3186	3186	1.83	1.83	1.83	1.83	1	1
2005	4062	4062	1.88	1.87	1.87	1.88	1	1
2006	4969	4969	1.93	1.92	1.92	1.93	1	1
2007	5908	5908	1.98	1.97	1.97	1.98	1	1
2008	6878	6878	2.03	2.02	2.02	2.03	1	1
2009	7880	7880	2.08	2.08	2.08	2.08	1	1
2010	8913	8913	2.14	2.13	2.13	2.14	1	1
2011	9982.155	9982.155	2.19	2.18	2.18	2.19	1	1
2012	11088.73043	11088.73043	2.25	2.24	2.24	2.25	1	1
2013	12234.03599	12234.03599	2.31	2.30	2.30	2.31	1	1
2014	13419.42725	13419.42725	2.37	2.36	2.36	2.37	1	1
2015	14646.3072	14646.3072	2.43	2.42	2.42	2.43	1	1
2016	15916.12796	15916.12796	2.49	2.48	2.48	2.49	1	1
2017	17230.39243	17230.39243	2.56	2.55	2.55	2.56	1	1
2018	18590.65617	18590.65617	2.62	2.61	2.61	2.62	1	1
2019	19998.52913	19998.52913	2.69	2.68	2.68	2.69	1	1
2020	21455.67765	21455.67765	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
		<-- COST DATA FOR CONSTRUCTION OF PLANT -->	
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	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 = 927 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $351

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	24	6,904	5	14	163	130	0	78
2006	0.0713	25	6,904	5	15	168	133	0	80
2007	0.0730	26	6,904	5	15	172	136	0	81
2008	0.0747	26	6,904	5	16	176	140	0	83
2009	0.0764	27	6,904	5	16	181	144	0	85
2010	0.0781	27	6,904	6	16	186	147	0	88
2011	0.0799	28	6,904	6	17	191	151	0	90
2012	0.0818	29	6,904	6	17	195	155	0	92
2013	0.0836	29	6,904	6	17	201	159	0	94
2014	0.0856	30	6,904	6	18	206	163	0	96
2015	0.0875	31	6,904	6	18	211	168	0	99
2016	0.0895	31	6,904	6	19	217	172	0	101
2017	0.0916	32	6,904	7	19	222	176	0	104
2018	0.0937	33	6,904	7	19	228	181	0	106
2019	0.0959	34	6,904	7	20	234	186	0	109
2020	0.0981	34	6,904	7	20	240	191	0	111
NOMINAL		467	110,462	96	276	3,190	2,533	0	1,496
NPV		357		73	212	2,439	1,936	0	1,145

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: RRefri

3186

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

* INSERVICE COSTS OF AVOIDED DIST. (000) = $40

(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	12
2002	0	0	0	0	0	0	36
2003	0	0	0	0	0	0	63
2004	0	0	0	0	0	0	92
2005	0	2	3	3	10	13	123
2006	0	2	3	3	11	14	158
2007	0	2	3	3	11	14	195
2008	0	3	3	3	11	14	235
2009	0	3	3	3	11	15	278
2010	1	3	3	3	12	15	325
2011	1	3	3	3	12	15	375
2012	1	3	3	3	12	16	429
2013	1	3	3	3	13	16	487
2014	1	3	3	3	13	16	550
2015	1	3	4	4	13	17	617
2016	1	3	4	4	13	17	689
2017	1	3	4	4	14	17	767
2018	1	3	4	4	14	18	850
2019	1	3	4	4	14	18	940
2020	1	3	4	4	15	19	1,036
NOMINAL	9	45	54	53	199	253	8,254
NPV	7	35	41	41	153	193	6,070

* 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	682	12	0	0	12	12
2002	2,071	36	0	0	36	36
2003	3,516	63	0	0	63	63
2004	5,019	92	0	0	92	92
2005	6,581	123	0	0	123	123
2006	8,200	158	0	0	158	158
2007	9,876	195	0	0	195	195
2008	11,609	235	0	0	235	235
2009	13,400	278	0	0	278	278
2010	15,248	325	0	0	325	325
2011	17,156	375	0	0	375	375
2012	19,132	429	0	0	429	429
2013	21,177	487	0	0	487	487
2014	23,293	550	0	0	550	550
2015	25,483	617	0	0	617	617
2016	27,750	689	0	0	689	689
2017	30,096	767	0	0	767	767
2018	32,525	850	0	0	850	850
2019	35,038	940	0	0	940	940
2020	37,640	1,036	0	0	1,036	1,036
NOMINAL	345,492	8,254	0	0	8,254	8,254
NPV		6,070	0	0	6,070	6,070

* 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	8	0	8	0	0	0	0	0	0	641	11	33	44	0	0	0	0
2002	8	0	8	0	0	0	0	0	0	1,947	34	103	137	0	0	0	0
2003	9	0	9	0	0	0	0	0	0	3,305	59	180	239	0	0	0	0
2004	9	0	9	0	0	0	0	0	0	4,718	87	262	349	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	6,186	117	352	469	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	7,708	149	449	598	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	9,284	184	553	737	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	10,913	222	665	887	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	12,596	263	785	1,048	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	14,333	307	914	1,221	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	16,127	355	1,052	1,406	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	17,984	406	1,200	1,606	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	19,906	461	1,359	1,819	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	21,895	520	1,529	2,049	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	23,954	583	1,711	2,295	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	26,085	652	1,906	2,558	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	28,291	725	2,115	2,840	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	30,573	804	2,338	3,143	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	32,936	889	2,577	3,466	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	35,381	980	2,832	3,812	0	0	0	0
NOMINAL	35	0	35	0	0	0	0	0	0	324,762	7,807	22,916	30,723	0	0	0	0
NPV	33	0	33	0	0	0	0	0	0		5,741	16,875	22,616		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	8	0	0	8	0	0	12	0	12	4	4
2002	0	8	0	0	8	0	0	36	0	36	28	31
2003	0	9	0	0	9	0	0	63	0	63	54	82
2004	0	9	0	0	9	0	0	92	0	92	82	159
2005	0	0	0	0	0	78	16	123	0	217	217	357
2006	0	0	0	0	0	80	16	158	0	254	254	583
2007	0	0	0	0	0	81	17	195	0	293	293	839
2008	0	0	0	0	0	83	17	235	0	335	335	1,125
2009	0	0	0	0	0	85	18	278	0	381	381	1,442
2010	0	0	0	0	0	88	18	325	0	430	430	1,793
2011	0	0	0	0	0	90	18	375	0	483	483	2,178
2012	0	0	0	0	0	92	19	429	0	539	539	2,598
2013	0	0	0	0	0	94	19	487	0	600	600	3,055
2014	0	0	0	0	0	96	20	550	0	666	666	3,550
2015	0	0	0	0	0	99	20	617	0	736	736	4,085
2016	0	0	0	0	0	101	21	689	0	811	811	4,662
2017	0	0	0	0	0	104	21	767	0	892	892	5,281
2018	0	0	0	0	0	106	22	850	0	978	978	5,946
2019	0	0	0	0	0	109	22	940	0	1,071	1,071	6,657
2020	0	0	0	0	0	111	23	1,036	0	1,170	1,170	7,416
NOMINAL	0	35	0	0	35	1,496	307	8,254	0	10,057	10,023	
NPV	0	33	0	0	33	1,145	235	6,070	0	7,450	7,416	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 223.65

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	44	0	0	0	44	0	0	0	0	44	44
2002	137	0	0	0	137	0	0	0	0	137	179
2003	239	0	0	0	239	0	0	0	0	239	407
2004	349	0	0	0	349	0	0	0	0	349	733
2005	469	0	0	0	469	0	0	0	0	469	1,161
2006	598	0	0	0	598	0	0	0	0	598	1,694
2007	737	0	0	0	737	0	0	0	0	737	2,337
2008	887	0	0	0	887	0	0	0	0	887	3,094
2009	1,048	0	0	0	1,048	0	0	0	0	1,048	3,968
2010	1,221	0	0	0	1,221	0	0	0	0	1,221	4,963
2011	1,406	0	0	0	1,406	0	0	0	0	1,406	6,083
2012	1,606	0	0	0	1,606	0	0	0	0	1,606	7,333
2013	1,819	0	0	0	1,819	0	0	0	0	1,819	8,718
2014	2,049	0	0	0	2,049	0	0	0	0	2,049	10,243
2015	2,295	0	0	0	2,295	0	0	0	0	2,295	11,912
2016	2,558	0	0	0	2,558	0	0	0	0	2,558	13,731
2017	2,840	0	0	0	2,840	0	0	0	0	2,840	15,705
2018	3,143	0	0	0	3,143	0	0	0	0	3,143	17,840
2019	3,466	0	0	0	3,466	0	0	0	0	3,466	20,142
2020	3,812	0	0	0	3,812	0	0	0	0	3,812	22,616
NOMINAL	30,723	0	0	0	30,723	0	0	0	0	30,723	
NPV	22,616	0	0	0	22,616	0	0	0	0	22,616	

In-service year of generation unit: 2005
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	8	0	44	0	52	12	0	0	0	12	(41)	(41)
2002	0	8	0	137	0	146	36	0	0	0	36	(110)	(148)
2003	0	9	0	239	0	248	63	0	0	0	63	(185)	(325)
2004	0	9	0	349	0	359	92	0	0	0	92	(267)	(574)
2005	0	0	0	469	0	469	201	16	0	0	217	(252)	(804)
2006	0	0	0	598	0	598	237	16	0	0	254	(344)	(1,111)
2007	0	0	0	737	0	737	276	17	0	0	293	(444)	(1,499)
2008	0	0	0	887	0	887	318	17	0	0	335	(552)	(1,969)
2009	0	0	0	1,048	0	1,048	364	18	0	0	381	(667)	(2,525)
2010	0	0	0	1,221	0	1,221	412	18	0	0	430	(791)	(3,170)
2011	0	0	0	1,406	0	1,406	464	18	0	0	483	(924)	(3,905)
2012	0	0	0	1,606	0	1,606	521	19	0	0	539	(1,066)	(4,735)
2013	0	0	0	1,819	0	1,819	581	19	0	0	600	(1,219)	(5,663)
2014	0	0	0	2,049	0	2,049	646	20	0	0	666	(1,383)	(6,693)
2015	0	0	0	2,295	0	2,295	716	20	0	0	736	(1,559)	(7,827)
2016	0	0	0	2,558	0	2,558	790	21	0	0	811	(1,747)	(9,069)
2017	0	0	0	2,840	0	2,840	870	21	0	0	892	(1,949)	(10,423)
2018	0	0	0	3,143	0	3,143	956	22	0	0	978	(2,165)	(11,894)
2019	0	0	0	3,466	0	3,466	1,049	22	0	0	1,071	(2,395)	(13,485)
2020	0	0	0	3,812	0	3,812	1,147	23	0	0	1,170	(2,642)	(15,200)
NOMINAL	0	35	0	30,723	0	30,758	9,750	307	0	0	10,057	(20,701)	
NPV	0	33	0	22,616	0	22,649	7,215	235	0	0	7,450	(15,200)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.33

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	10.45	$/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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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	65 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	751	751	1.69	1.69	1.69	1.69	1	1
2002	1530	1530	1.74	1.73	1.73	1.74	1	1
2003	2342	2342	1.78	1.78	1.78	1.78	1	1
2004	3186	3186	1.83	1.83	1.83	1.83	1	1
2005	4062	4062	1.88	1.87	1.87	1.88	1	1
2006	4969	4969	1.93	1.92	1.92	1.93	1	1
2007	5908	5908	1.98	1.97	1.97	1.98	1	1
2008	6878	6878	2.03	2.02	2.02	2.03	1	1
2009	7880	7880	2.08	2.08	2.08	2.08	1	1
2010	8913	8913	2.14	2.13	2.13	2.14	1	1
2011	9982.155	9982.155	2.19	2.18	2.18	2.19	1	1
2012	11088.73043	11088.73043	2.25	2.24	2.24	2.25	1	1
2013	12234.03599	12234.03599	2.31	2.30	2.30	2.31	1	1
2014	13419.42725	13419.42725	2.37	2.36	2.36	2.37	1	1
2015	14646.3072	14646.3072	2.43	2.42	2.42	2.43	1	1
2016	15916.12796	15916.12796	2.49	2.48	2.48	2.49	1	1
2017	17230.39243	17230.39243	2.56	2.55	2.55	2.56	1	1
2018	18590.65617	18590.65617	2.62	2.61	2.61	2.62	1	1
2019	19998.52913	19998.52913	2.69	2.68	2.68	2.69	1	1
2020	21455.67765	21455.67765	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

AFUDC Calculation

< -- COST DATA FOR CONSTRUCTION OF PLANT -- >

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	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: RFreezer

* UNIT SIZE OF AVOIDED GENERATION UNIT = 927 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $351

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	24	6,904	5	14	163	130	0	78
2006	0.0713	25	6,904	5	15	168	133	0	80
2007	0.0730	26	6,904	5	15	172	136	0	81
2008	0.0747	26	6,904	5	16	176	140	0	83
2009	0.0764	27	6,904	5	16	181	144	0	85
2010	0.0781	27	6,904	6	16	186	147	0	88
2011	0.0799	28	6,904	6	17	191	151	0	90
2012	0.0818	29	6,904	6	17	195	155	0	92
2013	0.0836	29	6,904	6	17	201	159	0	94
2014	0.0856	30	6,904	6	18	206	163	0	96
2015	0.0875	31	6,904	6	18	211	168	0	99
2016	0.0895	31	6,904	6	19	217	172	0	101
2017	0.0916	32	6,904	7	19	222	176	0	104
2018	0.0937	33	6,904	7	19	228	181	0	106
2019	0.0959	34	6,904	7	20	234	186	0	109
2020	0.0981	34	6,904	7	20	240	191	0	111
NOMINAL		467	110,462	96	276	3,190	2,533	0	1,496
NPV		357		73	212	2,439	1,936	0	1,145

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: RFreezer

3186

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

* INSERVICE COSTS OF AVOIDED DIST. (000) = $40

(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	11
2002	0	0	0	0	0	0	33
2003	0	0	0	0	0	0	57
2004	0	0	0	0	0	0	84
2005	0	2	3	3	10	13	112
2006	0	2	3	3	11	14	144
2007	0	2	3	3	11	14	177
2008	0	3	3	3	11	14	214
2009	0	3	3	3	11	15	254
2010	1	3	3	3	12	15	296
2011	1	3	3	3	12	15	342
2012	1	3	3	3	12	16	391
2013	1	3	3	3	13	16	444
2014	1	3	3	3	13	16	501
2015	1	3	4	4	13	17	562
2016	1	3	4	4	13	17	628
2017	1	3	4	4	14	17	699
2018	1	3	4	4	14	18	775
2019	1	3	4	4	14	18	857
2020	1	3	4	4	15	19	944
NOMINAL	9	45	54	53	199	253	7,525
NPV	7	35	41	41	153	193	5,534

* 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	622	11	0	0	11	11
2002	1,888	33	0	0	33	33
2003	3,205	57	0	0	57	57
2004	4,576	84	0	0	84	84
2005	6,000	112	0	0	112	112
2006	7,476	144	0	0	144	144
2007	9,004	177	0	0	177	177
2008	10,584	214	0	0	214	214
2009	12,216	254	0	0	254	254
2010	13,901	296	0	0	296	296
2011	15,641	342	0	0	342	342
2012	17,442	391	0	0	391	391
2013	19,306	444	0	0	444	444
2014	21,235	501	0	0	501	501
2015	23,232	562	0	0	562	562
2016	25,299	628	0	0	628	628
2017	27,438	699	0	0	699	699
2018	29,651	775	0	0	775	775
2019	31,943	857	0	0	857	857
2020	34,314	944	0	0	944	944
NOMINAL	314,970	7,525	0	0	7,525	7,525
NPV		5,534	0	0	5,534	5,534

* 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	8	0	8	0	0	0	0	0	0	584	10	30	40	0	0	0	0
2002	8	0	8	0	0	0	0	0	0	1,775	31	94	125	0	0	0	0
2003	9	0	9	0	0	0	0	0	0	3,013	54	164	218	0	0	0	0
2004	9	0	9	0	0	0	0	0	0	4,301	79	239	318	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	5,640	106	321	427	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	7,027	136	409	545	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	8,463	168	504	672	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	9,949	202	606	809	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	11,483	240	716	956	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	13,067	280	833	1,113	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	14,702	323	959	1,282	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	16,395	370	1,094	1,464	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	18,147	420	1,239	1,659	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	19,961	474	1,394	1,868	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	21,838	532	1,560	2,092	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	23,781	594	1,738	2,332	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	25,791	661	1,928	2,590	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	27,872	733	2,132	2,865	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	30,026	810	2,349	3,160	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	32,256	893	2,582	3,475	0	0	0	0
NOMINAL	35	0	35	0	0	0	0	0	0	296,072	7,118	20,891	28,009	0	0	0	0
NPV	33	0	33	0	0	0	0	0	0		5,234	15,384	20,618		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	8	0	0	8	0	0	11	0	11	3	3
2002	0	8	0	0	8	0	0	33	0	33	24	27
2003	0	9	0	0	9	0	0	57	0	57	48	73
2004	0	9	0	0	9	0	0	84	0	84	74	142
2005	0	0	0	0	0	78	16	112	0	206	206	330
2006	0	0	0	0	0	80	16	144	0	240	240	544
2007	0	0	0	0	0	81	17	177	0	276	276	784
2008	0	0	0	0	0	83	17	214	0	315	315	1,053
2009	0	0	0	0	0	85	18	254	0	357	357	1,350
2010	0	0	0	0	0	88	18	296	0	402	402	1,677
2011	0	0	0	0	0	90	18	342	0	450	450	2,035
2012	0	0	0	0	0	92	19	391	0	502	502	2,426
2013	0	0	0	0	0	94	19	444	0	557	557	2,850
2014	0	0	0	0	0	96	20	501	0	617	617	3,309
2015	0	0	0	0	0	99	20	562	0	681	681	3,805
2016	0	0	0	0	0	101	21	628	0	750	750	4,338
2017	0	0	0	0	0	104	21	699	0	824	824	4,911
2018	0	0	0	0	0	106	22	775	0	903	903	5,524
2019	0	0	0	0	0	109	22	857	0	988	988	6,180
2020	0	0	0	0	0	111	23	944	0	1,078	1,078	6,880
NOMINAL	0	35	0	0	35	1,496	307	7,525	0	9,328	9,293	
NPV	0	33	0	0	33	1,145	235	5,534	0	6,913	6,880	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 207.55

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	40	0	0	0	40	0	0	0	0	40	40
2002	125	0	0	0	125	0	0	0	0	125	163
2003	218	0	0	0	218	0	0	0	0	218	371
2004	318	0	0	0	318	0	0	0	0	318	668
2005	427	0	0	0	427	0	0	0	0	427	1,058
2006	545	0	0	0	545	0	0	0	0	545	1,545
2007	672	0	0	0	672	0	0	0	0	672	2,131
2008	809	0	0	0	809	0	0	0	0	809	2,820
2009	956	0	0	0	956	0	0	0	0	956	3,617
2010	1,113	0	0	0	1,113	0	0	0	0	1,113	4,524
2011	1,282	0	0	0	1,282	0	0	0	0	1,282	5,546
2012	1,464	0	0	0	1,464	0	0	0	0	1,464	6,685
2013	1,659	0	0	0	1,659	0	0	0	0	1,659	7,948
2014	1,868	0	0	0	1,868	0	0	0	0	1,868	9,338
2015	2,092	0	0	0	2,092	0	0	0	0	2,092	10,859
2016	2,332	0	0	0	2,332	0	0	0	0	2,332	12,518
2017	2,590	0	0	0	2,590	0	0	0	0	2,590	14,317
2018	2,865	0	0	0	2,865	0	0	0	0	2,865	16,264
2019	3,160	0	0	0	3,160	0	0	0	0	3,160	18,362
2020	3,475	0	0	0	3,475	0	0	0	0	3,475	20,618
NOMINAL	28,009	0	0	0	28,009	0	0	0	0	28,009	
NPV	20,618	0	0	0	20,618	0	0	0	0	20,618	

In-service year of generation unit: 2005
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	8	0	40	0	48	11	0	0	0	11	(38)	(38)
2002	0	8	0	125	0	134	33	0	0	0	33	(101)	(136)
2003	0	9	0	218	0	227	57	0	0	0	57	(170)	(298)
2004	0	9	0	318	0	328	84	0	0	0	84	(244)	(526)
2005	0	0	0	427	0	427	190	16	0	0	206	(221)	(728)
2006	0	0	0	545	0	545	223	16	0	0	240	(305)	(1,001)
2007	0	0	0	672	0	672	259	17	0	0	276	(396)	(1,347)
2008	0	0	0	809	0	809	297	17	0	0	315	(494)	(1,768)
2009	0	0	0	956	0	956	339	18	0	0	357	(599)	(2,267)
2010	0	0	0	1,113	0	1,113	383	18	0	0	402	(712)	(2,847)
2011	0	0	0	1,282	0	1,282	431	18	0	0	450	(832)	(3,510)
2012	0	0	0	1,464	0	1,464	483	19	0	0	502	(962)	(4,259)
2013	0	0	0	1,659	0	1,659	538	19	0	0	557	(1,101)	(5,098)
2014	0	0	0	1,868	0	1,868	597	20	0	0	617	(1,251)	(6,028)
2015	0	0	0	2,092	0	2,092	661	20	0	0	681	(1,411)	(7,054)
2016	0	0	0	2,332	0	2,332	729	21	0	0	750	(1,582)	(8,179)
2017	0	0	0	2,590	0	2,590	803	21	0	0	824	(1,766)	(9,407)
2018	0	0	0	2,865	0	2,865	881	22	0	0	903	(1,962)	(10,740)
2019	0	0	0	3,160	0	3,160	966	22	0	0	988	(2,172)	(12,182)
2020	0	0	0	3,475	0	3,475	1,056	23	0	0	1,078	(2,397)	(13,738)
NOMINAL	0	35	0	28,009	0	28,044	9,021	307	0	0	9,328	(18,716)	
NPV	0	33	0	20,618	0	20,651	6,679	235	0	0	6,913	(13,738)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.33

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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	65 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	240	240	1.74	1.73	1.73	1.74	1	1
2003	360	360	1.78	1.78	1.78	1.78	1	1
2004	480	480	1.83	1.83	1.83	1.83	1	1
2005	600	600	1.88	1.87	1.87	1.88	1	1
2006	720	720	1.93	1.92	1.92	1.93	1	1
2007	840	840	1.98	1.97	1.97	1.98	1	1
2008	960	960	2.03	2.02	2.02	2.03	1	1
2009	1080	1080	2.08	2.08	2.08	2.08	1	1
2010	1200	1200	2.14	2.13	2.13	2.14	1	1
2011	1320	1320	2.19	2.18	2.18	2.19	1	1
2012	1440	1440	2.25	2.24	2.24	2.25	1	1
2013	1560	1560	2.31	2.30	2.30	2.31	1	1
2014	1680	1680	2.37	2.36	2.36	2.37	1	1
2015	1800	1800	2.43	2.42	2.42	2.43	1	1
2016	1920	1920	2.49	2.48	2.48	2.49	1	1
2017	2040	2040	2.56	2.55	2.55	2.56	1	1
2018	2160	2160	2.62	2.61	2.61	2.62	1	1
2019	2280	2280	2.69	2.68	2.68	2.69	1	1
2020	2400	2400	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

[redacted]

AFUDC Calculation

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	0	2.3%	0.0%

< -- COST DATA FOR CONSTRUCTION OF PLANT -- >

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: JHP

* UNIT SIZE OF AVOIDED GENERATION UNIT = 117 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $44

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	3	874	1	2	21	16	0	10
2006	0.0713	3	874	1	2	21	17	0	10
2007	0.0730	3	874	1	2	22	17	0	10
2008	0.0747	3	874	1	2	22	18	0	11
2009	0.0764	3	874	1	2	23	18	0	11
2010	0.0781	3	874	1	2	24	19	0	11
2011	0.0799	4	874	1	2	24	19	0	11
2012	0.0818	4	874	1	2	25	20	0	12
2013	0.0836	4	874	1	2	25	20	0	12
2014	0.0856	4	874	1	2	26	21	0	12
2015	0.0875	4	874	1	2	27	21	0	12
2016	0.0895	4	874	1	2	27	22	0	13
2017	0.0916	4	874	1	2	28	22	0	13
2018	0.0937	4	874	1	2	29	23	0	13
2019	0.0959	4	874	1	3	30	24	0	14
2020	0.0981	4	874	1	3	30	24	0	14
NOMINAL		59	13,986	12	35	404	321	0	189
NPV		45		9	27	309	245	0	145

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: JHP

480

* 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	1
2002	0	0	0	0	0	0	2
2003	0	0	0	0	0	0	4
2004	0	0	0	0	0	0	5
2005	0	0	0	0	1	2	7
2006	0	0	0	0	1	2	9
2007	0	0	0	0	1	2	11
2008	0	0	0	0	1	2	12
2009	0	0	0	0	1	2	15
2010	0	0	0	0	2	2	17
2011	0	0	0	0	2	2	19
2012	0	0	0	0	2	2	21
2013	0	0	0	0	2	2	24
2014	0	0	0	0	2	2	26
2015	0	0	0	0	2	2	29
2016	0	0	0	0	2	2	32
2017	0	0	0	0	2	2	35
2018	0	0	0	0	2	2	38
2019	0	0	1	0	2	2	41
2020	0	0	1	1	2	2	44
NOMINAL	1	6	7	7	26	33	389
NPV	1	4	5	5	20	25	289

* 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	41	1	0	0	1	1
2002	123	2	0	0	2	2
2003	206	4	0	0	4	4
2004	288	5	0	0	5	5
2005	370	7	0	0	7	7
2006	452	9	0	0	9	9
2007	534	11	0	0	11	11
2008	617	12	0	0	12	12
2009	699	15	0	0	15	15
2010	781	17	0	0	17	17
2011	863	19	0	0	19	19
2012	945	21	0	0	21	21
2013	1,028	24	0	0	24	24
2014	1,110	26	0	0	26	26
2015	1,192	29	0	0	29	29
2016	1,274	32	0	0	32	32
2017	1,357	35	0	0	35	35
2018	1,439	38	0	0	38	38
2019	1,521	41	0	0	41	41
2020	1,603	44	0	0	44	44
NOMINAL	16,443	389	0	0	389	389
NPV		289	0	0	289	289

* 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	6	0	6	0	0	0	0	0	0	39	1	2	3	0	0	0	0
2002	6	0	6	0	0	0	0	0	0	116	2	6	8	0	0	0	0
2003	7	0	7	0	0	0	0	0	0	193	3	11	14	0	0	0	0
2004	7	0	7	0	0	0	0	0	0	270	5	15	20	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	348	7	20	26	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	425	8	25	33	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	502	10	30	40	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	580	12	35	47	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	657	14	41	55	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	734	16	47	63	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	811	18	53	71	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	889	20	59	79	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	966	22	66	88	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	1,043	25	73	98	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	1,121	27	80	107	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	1,198	30	88	117	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	1,275	33	95	128	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	1,352	36	103	139	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	1,430	39	112	150	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	1,507	42	121	162	0	0	0	0
NOMINAL	26	0	26	0	0	0	0	0	0	15,456	368	1,081	1,449	0	0	0	0
NPV	25	0	25	0	0	0	0	0	0		273	803	1,076		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	6	0	0	6	0	0	1	0	1	(6)	(6)
2002	0	6	0	0	6	0	0	2	0	2	(4)	(10)
2003	0	7	0	0	7	0	0	4	0	4	(3)	(13)
2004	0	7	0	0	7	0	0	5	0	5	(1)	(14)
2005	0	0	0	0	0	10	2	7	0	19	19	3
2006	0	0	0	0	0	10	2	9	0	21	21	22
2007	0	0	0	0	0	10	2	11	0	23	23	42
2008	0	0	0	0	0	11	2	12	0	25	25	64
2009	0	0	0	0	0	11	2	15	0	28	28	87
2010	0	0	0	0	0	11	2	17	0	30	30	111
2011	0	0	0	0	0	11	2	19	0	33	33	137
2012	0	0	0	0	0	12	2	21	0	35	35	164
2013	0	0	0	0	0	12	2	24	0	38	38	193
2014	0	0	0	0	0	12	3	26	0	41	41	224
2015	0	0	0	0	0	12	3	29	0	44	44	256
2016	0	0	0	0	0	13	3	32	0	47	47	289
2017	0	0	0	0	0	13	3	35	0	50	50	324
2018	0	0	0	0	0	13	3	38	0	54	54	361
2019	0	0	0	0	0	14	3	41	0	57	57	399
2020	0	0	0	0	0	14	3	44	0	61	61	439
NOMINAL	0	26	0	0	26	189	40	389	0	618	592	
NPV	0	25	0	0	25	145	30	289	0	464	439	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 18.47

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	3	0	0	0	3	0	0	0	0	3	3
2002	8	0	0	0	8	0	0	0	0	8	11
2003	14	0	0	0	14	0	0	0	0	14	24
2004	20	0	0	0	20	0	0	0	0	20	43
2005	26	0	0	0	26	0	0	0	0	26	67
2006	33	0	0	0	33	0	0	0	0	33	96
2007	40	0	0	0	40	0	0	0	0	40	131
2008	47	0	0	0	47	0	0	0	0	47	171
2009	55	0	0	0	55	0	0	0	0	55	217
2010	63	0	0	0	63	0	0	0	0	63	268
2011	71	0	0	0	71	0	0	0	0	71	324
2012	79	0	0	0	79	0	0	0	0	79	386
2013	88	0	0	0	88	0	0	0	0	88	453
2014	98	0	0	0	98	0	0	0	0	98	526
2015	107	0	0	0	107	0	0	0	0	107	604
2016	117	0	0	0	117	0	0	0	0	117	687
2017	128	0	0	0	128	0	0	0	0	128	776
2018	139	0	0	0	139	0	0	0	0	139	871
2019	150	0	0	0	150	0	0	0	0	150	971
2020	162	0	0	0	162	0	0	0	0	162	1,076
NOMINAL	1,449	0	0	0	1,449	0	0	0	0	1,449	
NPV	1,076	0	0	0	1,076	0	0	0	0	1,076	

In-service year of generation unit: 2005
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	6	0	3	0	9	1	0	0	0	1	(8)	(8)
2002	0	6	0	8	0	15	2	0	0	0	2	(12)	(20)
2003	0	7	0	14	0	21	4	0	0	0	4	(17)	(37)
2004	0	7	0	20	0	27	5	0	0	0	5	(21)	(57)
2005	0	0	0	26	0	26	17	2	0	0	19	(8)	(63)
2006	0	0	0	33	0	33	19	2	0	0	21	(12)	(74)
2007	0	0	0	40	0	40	21	2	0	0	23	(17)	(89)
2008	0	0	0	47	0	47	23	2	0	0	25	(22)	(108)
2009	0	0	0	55	0	55	25	2	0	0	28	(27)	(130)
2010	0	0	0	63	0	63	28	2	0	0	30	(33)	(157)
2011	0	0	0	71	0	71	30	2	0	0	33	(38)	(187)
2012	0	0	0	79	0	79	33	2	0	0	35	(44)	(221)
2013	0	0	0	88	0	88	36	2	0	0	38	(50)	(260)
2014	0	0	0	98	0	98	38	3	0	0	41	(57)	(302)
2015	0	0	0	107	0	107	41	3	0	0	44	(63)	(348)
2016	0	0	0	117	0	117	44	3	0	0	47	(70)	(398)
2017	0	0	0	128	0	128	48	3	0	0	50	(78)	(452)
2018	0	0	0	139	0	139	51	3	0	0	54	(85)	(510)
2019	0	0	0	150	0	150	55	3	0	0	57	(93)	(572)
2020	0	0	0	162	0	162	58	3	0	0	61	(101)	(637)
NOMINAL	0	26	0	1,449	0	1,475	578	40	0	0	618	(857)	
NPV	0	25	0	1,076	0	1,101	433	30	0	0	464	(637)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.42

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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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) YEAR	(2) 65 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	65	65	1.69	1.69	1.69	1.69	1	1
2002	265	265	1.74	1.73	1.73	1.74	1	1
2003	465	465	1.78	1.78	1.78	1.78	1	1
2004	665	665	1.83	1.83	1.83	1.83	1	1
2005	865	865	1.88	1.87	1.87	1.88	1	1
2006	1065	1065	1.93	1.92	1.92	1.93	1	1
2007	1265	1265	1.98	1.97	1.97	1.98	1	1
2008	1465	1465	2.03	2.02	2.02	2.03	1	1
2009	1665	1665	2.08	2.08	2.08	2.08	1	1
2010	1865	1865	2.14	2.13	2.13	2.14	1	1
2011	2065	2065	2.19	2.18	2.18	2.19	1	1
2012	2265	2265	2.25	2.24	2.24	2.25	1	1
2013	2465	2465	2.31	2.30	2.30	2.31	1	1
2014	2665	2665	2.37	2.36	2.36	2.37	1	1
2015	2865	2865	2.43	2.42	2.42	2.43	1	1
2016	3065	3065	2.49	2.48	2.48	2.49	1	1
2017	3265	3265	2.56	2.55	2.55	2.56	1	1
2018	3465	3465	2.62	2.61	2.61	2.62	1	1
2019	3665	3665	2.69	2.68	2.68	2.69	1	1
2020	3865	3865	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

AFUDC Calculation

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	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: JHA

* UNIT SIZE OF AVOIDED GENERATION UNIT = 169 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $64

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	4	1,260	1	3	30	24	0	14
2006	0.0713	5	1,260	1	3	31	24	0	15
2007	0.0730	5	1,260	1	3	31	25	0	15
2008	0.0747	5	1,260	1	3	32	26	0	15
2009	0.0764	5	1,260	1	3	33	26	0	16
2010	0.0781	5	1,260	1	3	34	27	0	16
2011	0.0799	5	1,260	1	3	35	28	0	16
2012	0.0818	5	1,260	1	3	36	28	0	17
2013	0.0836	5	1,260	1	3	37	29	0	17
2014	0.0856	5	1,260	1	3	38	30	0	18
2015	0.0875	6	1,260	1	3	39	31	0	18
2016	0.0895	6	1,260	1	3	40	31	0	18
2017	0.0916	6	1,260	1	3	41	32	0	19
2018	0.0937	6	1,260	1	4	42	33	0	19
2019	0.0959	6	1,260	1	4	43	34	0	20
2020	0.0981	6	1,260	1	4	44	35	0	20
NOMINAL		85	20,162	17	50	582	462	0	273
NPV		65		13	39	445	353	0	209

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: JHA

* INSERVICE COSTS OF AVOIDED TRANS. (000) = $1
* INSERVICE COSTS OF AVOIDED DIST. (000) = $7

(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	2
2003	0	0	0	0	0	0	4
2004	0	0	0	0	0	0	7
2005	0	0	1	1	2	2	10
2006	0	0	1	1	2	2	13
2007	0	0	1	1	2	2	16
2008	0	0	1	1	2	3	19
2009	0	0	1	1	2	3	22
2010	0	0	1	1	2	3	26
2011	0	0	1	1	2	3	29
2012	0	1	1	1	2	3	33
2013	0	1	1	1	2	3	37
2014	0	1	1	1	2	3	41
2015	0	1	1	1	2	3	46
2016	0	1	1	1	2	3	50
2017	0	1	1	1	2	3	55
2018	0	1	1	1	3	3	60
2019	0	1	1	1	3	3	66
2020	0	1	1	1	3	3	71
NOMINAL	2	8	10	10	36	45	609
NPV	1	6	7	7	27	35	450

* 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	22	0	0	0	0	0
2002	113	2	0	0	2	2
2003	250	4	0	0	4	4
2004	387	7	0	0	7	7
2005	524	10	0	0	10	10
2006	661	13	0	0	13	13
2007	798	16	0	0	16	16
2008	935	19	0	0	19	19
2009	1,072	22	0	0	22	22
2010	1,209	26	0	0	26	26
2011	1,346	29	0	0	29	29
2012	1,483	33	0	0	33	33
2013	1,620	37	0	0	37	37
2014	1,757	41	0	0	41	41
2015	1,894	46	0	0	46	46
2016	2,031	50	0	0	50	50
2017	2,168	55	0	0	55	55
2018	2,305	60	0	0	60	60
2019	2,442	66	0	0	66	66
2020	2,579	71	0	0	71	71
NOMINAL	25,601	609	0	0	609	609
NPV		450	0	0	450	450

* 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	3	0	3	0	0	0	0	0	0	21	0	1	1	0	0	0	0
2002	11	0	11	0	0	0	0	0	0	106	2	6	8	0	0	0	0
2003	11	0	11	0	0	0	0	0	0	235	4	13	17	0	0	0	0
2004	11	0	11	0	0	0	0	0	0	364	7	20	27	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	493	9	28	37	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	621	12	36	48	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	750	15	45	60	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	879	18	54	71	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	1,008	21	63	84	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	1,137	24	72	97	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	1,265	28	83	110	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	1,394	31	93	124	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	1,523	35	104	139	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	1,652	39	115	155	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	1,781	43	127	171	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	1,909	48	140	187	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	2,038	52	152	205	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	2,167	57	166	223	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	2,296	62	180	242	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	2,425	67	194	261	0	0	0	0
NOMINAL	36	0	36	0	0	0	0	0	0	24,065	576	1,691	2,267	0	0	0	0
NPV	35	0	35	0	0	0	0	0	0		425	1,250	1,676		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: JHA

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS $(000)	UTILITY PROGRAM COSTS $(000)	PARTICIPANT PROGRAM COSTS $(000)	OTHER COSTS $(000)	TOTAL COSTS $(000)	AVOIDED GEN UNIT BENEFITS $(000)	AVOIDED T & D BENEFITS $(000)	PROGRAM FUEL SAVINGS $(000)	OTHER BENEFITS $(000)	TOTAL BENEFITS $(000)	NET BENEFITS $(000)	CUMULATIVE DISCOUNTED NET BENEFITS $(000)
2001	0	3	0	0	3	0	0	0	0	0	(3)	(3)
2002	0	11	0	0	11	0	0	2	0	2	(9)	(12)
2003	0	11	0	0	11	0	0	4	0	4	(7)	(18)
2004	0	11	0	0	11	0	0	7	0	7	(4)	(22)
2005	0	0	0	0	0	14	3	10	0	27	27	3
2006	0	0	0	0	0	15	3	13	0	30	30	30
2007	0	0	0	0	0	15	3	16	0	34	34	59
2008	0	0	0	0	0	15	3	19	0	37	37	91
2009	0	0	0	0	0	16	3	22	0	41	41	125
2010	0	0	0	0	0	16	3	26	0	45	45	162
2011	0	0	0	0	0	16	3	29	0	49	49	201
2012	0	0	0	0	0	17	3	33	0	53	53	242
2013	0	0	0	0	0	17	3	37	0	58	58	286
2014	0	0	0	0	0	18	4	41	0	63	63	333
2015	0	0	0	0	0	18	4	46	0	67	67	382
2016	0	0	0	0	0	18	4	50	0	73	73	434
2017	0	0	0	0	0	19	4	55	0	78	78	488
2018	0	0	0	0	0	19	4	60	0	84	84	545
2019	0	0	0	0	0	20	4	66	0	89	89	604
2020	0	0	0	0	0	20	4	71	0	95	95	666
NOMINAL	0	36	0	0	36	273	55	609	0	937	900	
NPV	0	35	0	0	35	209	42	450	0	701	666	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 20.13

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	1	0	0	0	1	0	0	0	0	1	1
2002	8	0	0	0	8	0	0	0	0	8	9
2003	17	0	0	0	17	0	0	0	0	17	25
2004	27	0	0	0	27	0	0	0	0	27	50
2005	37	0	0	0	37	0	0	0	0	37	84
2006	48	0	0	0	48	0	0	0	0	48	127
2007	60	0	0	0	60	0	0	0	0	60	179
2008	71	0	0	0	71	0	0	0	0	71	240
2009	84	0	0	0	84	0	0	0	0	84	310
2010	97	0	0	0	97	0	0	0	0	97	389
2011	110	0	0	0	110	0	0	0	0	110	477
2012	124	0	0	0	124	0	0	0	0	124	574
2013	139	0	0	0	139	0	0	0	0	139	680
2014	155	0	0	0	155	0	0	0	0	155	795
2015	171	0	0	0	171	0	0	0	0	171	919
2016	187	0	0	0	187	0	0	0	0	187	1,052
2017	205	0	0	0	205	0	0	0	0	205	1,194
2018	223	0	0	0	223	0	0	0	0	223	1,346
2019	242	0	0	0	242	0	0	0	0	242	1,506
2020	261	0	0	0	261	0	0	0	0	261	1,676
NOMINAL	2,267	0	0	0	2,267	0	0	0	0	2,267	
NPV	1,676	0	0	0	1,676	0	0	0	0	1,676	

In-service year of generation unit: 2005
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	3	0	1	0	5	0	0	0	0	0	(4)	(4)
2002	0	11	0	8	0	18	2	0	0	0	2	(16)	(20)
2003	0	11	0	17	0	28	4	0	0	0	4	(23)	(43)
2004	0	11	0	27	0	38	7	0	0	0	7	(31)	(72)
2005	0	0	0	37	0	37	24	3	0	0	27	(10)	(81)
2006	0	0	0	48	0	48	27	3	0	0	30	(18)	(97)
2007	0	0	0	60	0	60	31	3	0	0	34	(26)	(120)
2008	0	0	0	71	0	71	34	3	0	0	37	(34)	(149)
2009	0	0	0	84	0	84	38	3	0	0	41	(43)	(185)
2010	0	0	0	97	0	97	42	3	0	0	45	(52)	(227)
2011	0	0	0	110	0	110	46	3	0	0	49	(61)	(276)
2012	0	0	0	124	0	124	50	3	0	0	53	(71)	(331)
2013	0	0	0	139	0	139	54	3	0	0	58	(81)	(393)
2014	0	0	0	155	0	155	59	4	0	0	63	(92)	(462)
2015	0	0	0	171	0	171	64	4	0	0	67	(103)	(537)
2016	0	0	0	187	0	187	69	4	0	0	73	(115)	(618)
2017	0	0	0	205	0	205	74	4	0	0	78	(127)	(706)
2018	0	0	0	223	0	223	80	4	0	0	84	(139)	(801)
2019	0	0	0	242	0	242	85	4	0	0	89	(152)	(902)
2020	0	0	0	261	0	261	91	4	0	0	95	(166)	(1,010)
NOMINAL	0	36	0	2,267	0	2,303	882	55	0	0	937	(1,366)	
NPV	0	35	0	1,676	0	1,710	659	42	0	0	701	(1,010)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.41

PROGRAM: Residential DLC

I. PROGRAM DEMAND SAVINGS AND LINE LOSSES

(1) CUSTOMER KW REDUCTION AT THE METER	0.30	KW /CUST
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.33	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	187.35	$/CUST
(2)** UTILITY RECURRING COST PER CUSTOMER	16.06	$/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	38.54	$/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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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: Residential DLC

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	65 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	247	247	1.69	1.93	1.93	1.69	1	1
2002	508	508	1.74	2.00	2.00	1.74	1	1
2003	785	785	1.78	2.06	2.06	1.78	1	1
2004	1077	1077	1.83	2.12	2.12	1.83	1	1
2005	1386	1386	1.88	2.19	2.19	1.88	1	1
2006	1710	1710	1.93	2.26	2.26	1.93	1	1
2007	2051	2051	1.98	2.33	2.33	1.98	1	1
2008	2407	2407	2.03	2.41	2.41	2.03	1	1
2009	2779	2779	2.08	2.48	2.48	2.08	1	1
2010	3170	3170	2.14	2.56	2.56	2.14	1	1
2011	3581	3581	2.19	2.64	2.64	2.19	1	1
2012	4012	4012	2.25	2.73	2.73	2.25	1	1
2013	4465	4465	2.31	2.81	2.81	2.31	1	1
2014	4940	4940	2.37	2.90	2.90	2.37	1	1
2015	5439	5439	2.43	2.99	2.99	2.43	1	1
2016	5963	5963	2.49	3.09	3.09	2.49	1	1
2017	6514	6514	2.56	3.19	3.19	2.56	1	1
2018	7091	7091	2.62	3.29	3.29	2.62	1	1
2019	7698	7698	2.69	3.39	3.39	2.69	1	1
2020	8335	8335	2.76	3.50	3.50	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

AFUDC Calculation

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	0	2.3%	0.0%

< -- COST DATA FOR CONSTRUCTION OF PLANT -- >

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: Residential DLC

* UNIT SIZE OF AVOIDED GENERATION UNIT = 452 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $171

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	12	3,365	2	7	80	63	0	38
2006	0.0713	12	3,365	3	7	82	65	0	39
2007	0.0730	12	3,365	3	7	84	67	0	40
2008	0.0747	13	3,365	3	8	86	68	0	41
2009	0.0764	13	3,365	3	8	88	70	0	42
2010	0.0781	13	3,365	3	8	91	72	0	43
2011	0.0799	14	3,365	3	8	93	74	0	44
2012	0.0818	14	3,365	3	8	95	76	0	45
2013	0.0836	14	3,365	3	8	98	78	0	46
2014	0.0856	15	3,365	3	9	100	80	0	47
2015	0.0875	15	3,365	3	9	103	82	0	48
2016	0.0895	15	3,365	3	9	106	84	0	49
2017	0.0916	16	3,365	3	9	108	86	0	50
2018	0.0937	16	3,365	3	9	111	88	0	52
2019	0.0959	16	3,365	3	10	114	91	0	53
2020	0.0981	17	3,365	3	10	117	93	0	54
NOMINAL		227	53,844	47	135	1,555	1,234	0	729
NPV		174		36	103	1,189	944	0	558

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: Residential DLC

1077

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

* INSERVICE COSTS OF AVOIDED DIST. (000) = $19

(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	1	1	1	5	6	0
2006	0	1	1	1	5	7	0
2007	0	1	1	1	5	7	0
2008	0	1	1	1	5	7	0
2009	0	1	2	1	6	7	0
2010	0	1	2	2	6	7	0
2011	0	1	2	2	6	7	0
2012	0	1	2	2	6	7	0
2013	0	1	2	2	6	8	0
2014	0	1	2	2	6	8	0
2015	0	1	2	2	6	8	0
2016	0	1	2	2	6	8	0
2017	0	2	2	2	7	8	0
2018	0	2	2	2	7	9	0
2019	0	2	2	2	7	9	0
2020	0	2	2	2	7	9	0
NOMINAL	4	22	26	26	96	122	0
NPV	3	17	20	20	74	93	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

* WORKSHEET : DSM PROGRAM FUEL SAVINGS
PROGRAM: Residential DLC

(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: Residential DLC

(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	46	2	48	0	5	5	0	0	0	0	0	0	0	0	0	0	0
2002	50	6	56	0	15	15	0	0	0	0	0	0	0	0	0	0	0
2003	54	11	65	0	26	26	0	0	0	0	0	0	0	0	0	0	0
2004	59	16	75	0	38	38	0	0	0	0	0	0	0	0	0	0	0
2005	0	22	22	0	52	52	0	0	0	0	0	0	0	0	0	0	0
2006	0	28	28	0	67	67	0	0	0	0	0	0	0	0	0	0	0
2007	0	35	35	0	83	83	0	0	0	0	0	0	0	0	0	0	0
2008	0	42	42	0	101	101	0	0	0	0	0	0	0	0	0	0	0
2009	0	50	50	0	120	120	0	0	0	0	0	0	0	0	0	0	0
2010	0	59	59	0	141	141	0	0	0	0	0	0	0	0	0	0	0
2011	0	68	68	0	163	163	0	0	0	0	0	0	0	0	0	0	0
2012	0	78	78	0	188	188	0	0	0	0	0	0	0	0	0	0	0
2013	0	89	89	0	215	215	0	0	0	0	0	0	0	0	0	0	0
2014	0	101	101	0	244	244	0	0	0	0	0	0	0	0	0	0	0
2015	0	115	115	0	275	275	0	0	0	0	0	0	0	0	0	0	0
2016	0	129	129	0	309	309	0	0	0	0	0	0	0	0	0	0	0
2017	0	144	144	0	346	346	0	0	0	0	0	0	0	0	0	0	0
2018	0	161	161	0	386	386	0	0	0	0	0	0	0	0	0	0	0
2019	0	179	179	0	429	429	0	0	0	0	0	0	0	0	0	0	0
2020	0	198	198	0	476	476	0	0	0	0	0	0	0	0	0	0	0
NOMINAL	209	1,532	1,742	0	3,678	3,678	0	0	0	0	0	0	0	0	0	0	0
NPV	202	1,124	1,326	0	2,698	2,698	0	0	0		0	0	0		0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

TOTAL RESOURCE COST TESTS
PROGRAM: Residential DLC

(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	48	0	0	48	0	0	0	0	0	(48)	(48)
2002	0	56	0	0	56	0	0	0	0	0	(56)	(103)
2003	0	65	0	0	65	0	0	0	0	0	(65)	(166)
2004	0	75	0	0	75	0	0	0	0	0	(75)	(235)
2005	0	22	0	0	22	38	8	0	0	46	24	(213)
2006	0	28	0	0	28	39	8	0	0	47	19	(196)
2007	0	35	0	0	35	40	8	0	0	48	13	(185)
2008	0	42	0	0	42	41	8	0	0	49	7	(179)
2009	0	50	0	0	50	42	9	0	0	50	0	(179)
2010	0	59	0	0	59	43	9	0	0	51	(7)	(185)
2011	0	68	0	0	68	44	9	0	0	53	(15)	(197)
2012	0	78	0	0	78	45	9	0	0	54	(24)	(216)
2013	0	89	0	0	89	46	9	0	0	55	(34)	(242)
2014	0	101	0	0	101	47	10	0	0	56	(45)	(276)
2015	0	115	0	0	115	48	10	0	0	58	(57)	(317)
2016	0	129	0	0	129	49	10	0	0	59	(70)	(366)
2017	0	144	0	0	144	50	10	0	0	61	(83)	(424)
2018	0	161	0	0	161	52	10	0	0	62	(99)	(491)
2019	0	179	0	0	179	53	11	0	0	64	(115)	(568)
2020	0	198	0	0	198	54	11	0	0	65	(133)	(654)
NOMINAL	0	1,742	0	0	1,742	729	148	0	0	878	(864)	
NPV	0	1,326	0	0	1,326	558	113	0	0	672	(654)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.51

PARTICIPANT COSTS AND BENEFITS
PROGRAM: Residential DLC

(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	5	0	5	0	0	0	0	5	5
2002	0	0	15	0	15	0	0	0	0	15	19
2003	0	0	26	0	26	0	0	0	0	26	44
2004	0	0	38	0	38	0	0	0	0	38	80
2005	0	0	52	0	52	0	0	0	0	52	128
2006	0	0	67	0	67	0	0	0	0	67	187
2007	0	0	83	0	83	0	0	0	0	83	260
2008	0	0	101	0	101	0	0	0	0	101	346
2009	0	0	120	0	120	0	0	0	0	120	446
2010	0	0	141	0	141	0	0	0	0	141	560
2011	0	0	163	0	163	0	0	0	0	163	690
2012	0	0	188	0	188	0	0	0	0	188	837
2013	0	0	215	0	215	0	0	0	0	215	1,000
2014	0	0	244	0	244	0	0	0	0	244	1,181
2015	0	0	275	0	275	0	0	0	0	275	1,381
2016	0	0	309	0	309	0	0	0	0	309	1,601
2017	0	0	346	0	346	0	0	0	0	346	1,841
2018	0	0	386	0	386	0	0	0	0	386	2,104
2019	0	0	429	0	429	0	0	0	0	429	2,389
2020	0	0	476	0	476	0	0	0	0	476	2,698
NOMINAL	0	0	3,678	0	3,678	0	0	0	0	3,678	
NPV	0	0	2,698	0	2,698	0	0	0	0	2,698	

In-service year of generation unit: 2005
Discount rate: 2.30%

Benefit/Cost Ratio: 1.00

RATE IMPACT TEST
PROGRAM: Residential DLC

(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	48	5	0	0	53	0	0	0	0	0	(53)	(53)
2002	0	56	15	0	0	71	0	0	0	0	0	(71)	(123)
2003	0	65	26	0	0	91	0	0	0	0	0	(91)	(210)
2004	0	75	38	0	0	113	0	0	0	0	0	(113)	(315)
2005	0	22	52	0	0	74	38	8	0	0	46	(28)	(341)
2006	0	28	67	0	0	95	39	8	0	0	47	(48)	(384)
2007	0	35	83	0	0	118	40	8	0	0	48	(70)	(445)
2008	0	42	101	0	0	143	41	8	0	0	49	(94)	(525)
2009	0	50	120	0	0	170	42	9	0	0	50	(120)	(624)
2010	0	59	141	0	0	199	43	9	0	0	51	(148)	(745)
2011	0	68	163	0	0	231	44	9	0	0	53	(179)	(887)
2012	0	78	188	0	0	266	45	9	0	0	54	(212)	(1,053)
2013	0	89	215	0	0	304	46	9	0	0	55	(249)	(1,242)
2014	0	101	244	0	0	345	47	10	0	0	56	(289)	(1,457)
2015	0	115	275	0	0	390	48	10	0	0	58	(332)	(1,698)
2016	0	129	309	0	0	438	49	10	0	0	59	(379)	(1,967)
2017	0	144	346	0	0	490	50	10	0	0	61	(429)	(2,266)
2018	0	161	386	0	0	547	52	10	0	0	62	(485)	(2,595)
2019	0	179	429	0	0	608	53	11	0	0	64	(544)	(2,956)
2020	0	198	476	0	0	674	54	11	0	0	65	(609)	(3,352)
NOMINAL	0	1,742	3,678	0	0	5,419	729	148	0	0	878	(4,542)	
NPV	0	1,326	2,698	0	0	4,023	558	113	0	0	672	(3,352)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.17

Appendix 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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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	65 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	15	15	1.69	1.69	1.69	1.69	1	1
2002	30	30	1.74	1.73	1.73	1.74	1	1
2003	45	45	1.78	1.78	1.78	1.78	1	1
2004	60	60	1.83	1.83	1.83	1.83	1	1
2005	75	75	1.88	1.87	1.87	1.88	1	1
2006	90	90	1.93	1.92	1.92	1.93	1	1
2007	105	105	1.98	1.97	1.97	1.98	1	1
2008	120	120	2.03	2.02	2.02	2.03	1	1
2009	135	135	2.08	2.08	2.08	2.08	1	1
2010	150	150	2.14	2.13	2.13	2.14	1	1
2011	165	165	2.19	2.18	2.18	2.19	1	1
2012	180	180	2.25	2.24	2.24	2.25	1	1
2013	195	195	2.31	2.30	2.30	2.31	1	1
2014	210	210	2.37	2.36	2.36	2.37	1	1
2015	225	225	2.43	2.42	2.42	2.43	1	1
2016	240	240	2.49	2.48	2.48	2.49	1	1
2017	255	255	2.56	2.55	2.55	2.56	1	1
2018	270	270	2.62	2.61	2.61	2.62	1	1
2019	285	285	2.69	2.68	2.68	2.69	1	1
2020	300	300	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

AFUDC Calculation

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	0	2.3%	0.0%

< -- COST DATA FOR CONSTRUCTION OF PLANT -- >

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: ADS

* UNIT SIZE OF AVOIDED GENERATION UNIT = 53 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $20

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	1	395	0	1	9	7	0	4
2006	0.0713	1	395	0	1	10	8	0	5
2007	0.0730	1	395	0	1	10	8	0	5
2008	0.0747	1	395	0	1	10	8	0	5
2009	0.0764	2	395	0	1	10	8	0	5
2010	0.0781	2	395	0	1	11	8	0	5
2011	0.0799	2	395	0	1	11	9	0	5
2012	0.0818	2	395	0	1	11	9	0	5
2013	0.0836	2	395	0	1	11	9	0	5
2014	0.0856	2	395	0	1	12	9	0	6
2015	0.0875	2	395	0	1	12	10	0	6
2016	0.0895	2	395	0	1	12	10	0	6
2017	0.0916	2	395	0	1	13	10	0	6
2018	0.0937	2	395	0	1	13	10	0	6
2019	0.0959	2	395	0	1	13	11	0	6
2020	0.0981	2	395	0	1	14	11	0	6
NOMINAL		27	6,313	5	16	182	145	0	86
NPV		20		4	12	139	111	0	65

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: ADS

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

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

(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	1
2005	0	0	0	0	1	1	1
2006	0	0	0	0	1	1	1
2007	0	0	0	0	1	1	1
2008	0	0	0	0	1	1	1
2009	0	0	0	0	1	1	2
2010	0	0	0	0	1	1	2
2011	0	0	0	0	1	1	2
2012	0	0	0	0	1	1	2
2013	0	0	0	0	1	1	3
2014	0	0	0	0	1	1	3
2015	0	0	0	0	1	1	3
2016	0	0	0	0	1	1	3
2017	0	0	0	0	1	1	4
2018	0	0	0	0	1	1	4
2019	0	0	0	0	1	1	4
2020	0	0	0	0	1	1	5
NOMINAL	0	3	3	3	12	15	41
NPV	0	2	2	2	9	11	31

* 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	4	0	0	0	0	0
2002	13	0	0	0	0	0
2003	22	0	0	0	0	0
2004	31	1	0	0	1	1
2005	39	1	0	0	1	1
2006	48	1	0	0	1	1
2007	57	1	0	0	1	1
2008	65	1	0	0	1	1
2009	74	2	0	0	2	2
2010	83	2	0	0	2	2
2011	92	2	0	0	2	2
2012	100	2	0	0	2	2
2013	109	3	0	0	3	3
2014	118	3	0	0	3	3
2015	127	3	0	0	3	3
2016	135	3	0	0	3	3
2017	144	4	0	0	4	4
2018	153	4	0	0	4	4
2019	161	4	0	0	4	4
2020	170	5	0	0	5	5
NOMINAL	1,746	41	0	0	41	41
NPV		31	0	0	31	31

* 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	4	0	4	0	0	0	6	0	6	4	0	1	1	0	0	0	0
2002	5	0	5	0	0	0	6	0	6	12	0	2	2	0	0	0	0
2003	5	0	5	0	0	0	6	0	6	21	0	3	3	0	0	0	0
2004	5	0	5	0	0	0	6	0	6	29	1	4	4	0	0	0	0
2005	0	0	0	0	0	0	7	0	7	37	1	5	6	0	0	0	0
2006	0	0	0	0	0	0	7	0	7	45	1	6	7	0	0	0	0
2007	0	0	0	0	0	0	7	0	7	53	1	8	9	0	0	0	0
2008	0	0	0	0	0	0	7	0	7	62	1	9	10	0	0	0	0
2009	0	0	0	0	0	0	7	0	7	70	1	10	12	0	0	0	0
2010	0	0	0	0	0	0	7	0	7	78	2	12	14	0	0	0	0
2011	0	0	0	0	0	0	8	0	8	86	2	13	15	0	0	0	0
2012	0	0	0	0	0	0	8	0	8	94	2	15	17	0	0	0	0
2013	0	0	0	0	0	0	8	0	8	103	2	17	19	0	0	0	0
2014	0	0	0	0	0	0	8	0	8	111	3	19	21	0	0	0	0
2015	0	0	0	0	0	0	8	0	8	119	3	20	23	0	0	0	0
2016	0	0	0	0	0	0	8	0	8	127	3	22	26	0	0	0	0
2017	0	0	0	0	0	0	9	0	9	135	3	24	28	0	0	0	0
2018	0	0	0	0	0	0	9	0	9	144	4	26	30	0	0	0	0
2019	0	0	0	0	0	0	9	0	9	152	4	29	33	0	0	0	0
2020	0	0	0	0	0	0	9	0	9	160	4	31	35	0	0	0	0
NOMINAL	19	0	19	0	0	0	151	0	151	1,641	39	276	315	0	0	0	0
NPV	18	0	18	0	0	0	120	0	120		29	205	234		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	4	6	0	11	0	0	0	0	0	(10)	(10)
2002	0	5	6	0	11	0	0	0	0	0	(11)	(21)
2003	0	5	6	0	11	0	0	0	0	0	(11)	(31)
2004	0	5	6	0	11	0	0	1	0	1	(11)	(41)
2005	0	0	7	0	7	4	1	1	0	6	(0)	(41)
2006	0	0	7	0	7	5	1	1	0	6	(0)	(42)
2007	0	0	7	0	7	5	1	1	0	7	(0)	(42)
2008	0	0	7	0	7	5	1	1	0	7	0	(42)
2009	0	0	7	0	7	5	1	2	0	7	0	(41)
2010	0	0	7	0	7	5	1	2	0	8	0	(41)
2011	0	0	8	0	8	5	1	2	0	8	1	(41)
2012	0	0	8	0	8	5	1	2	0	9	1	(40)
2013	0	0	8	0	8	5	1	3	0	9	1	(39)
2014	0	0	8	0	8	6	1	3	0	9	1	(38)
2015	0	0	8	0	8	6	1	3	0	10	2	(37)
2016	0	0	8	0	8	6	1	3	0	10	2	(36)
2017	0	0	9	0	9	6	1	4	0	11	2	(34)
2018	0	0	9	0	9	6	1	4	0	11	2	(32)
2019	0	0	9	0	9	6	1	4	0	12	3	(31)
2020	0	0	9	0	9	6	1	5	0	12	3	(28)
NOMINAL	0	19	151	0	169	86	18	41	0	145	(24)	
NPV	0	18	120	0	138	65	14	31	0	110	(28)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.79

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	1	0	0	0	1	6	0	0	6	(5)	(5)
2002	2	0	0	0	2	6	0	0	6	(4)	(10)
2003	3	0	0	0	3	6	0	0	6	(3)	(13)
2004	4	0	0	0	4	6	0	0	6	(2)	(15)
2005	6	0	0	0	6	7	0	0	7	(1)	(16)
2006	7	0	0	0	7	7	0	0	7	0	(15)
2007	9	0	0	0	9	7	0	0	7	2	(14)
2008	10	0	0	0	10	7	0	0	7	3	(11)
2009	12	0	0	0	12	7	0	0	7	5	(7)
2010	14	0	0	0	14	7	0	0	7	6	(2)
2011	15	0	0	0	15	8	0	0	8	8	4
2012	17	0	0	0	17	8	0	0	8	10	11
2013	19	0	0	0	19	8	0	0	8	11	20
2014	21	0	0	0	21	8	0	0	8	13	30
2015	23	0	0	0	23	8	0	0	8	15	41
2016	26	0	0	0	26	8	0	0	8	17	53
2017	28	0	0	0	28	9	0	0	9	19	66
2018	30	0	0	0	30	9	0	0	9	21	81
2019	33	0	0	0	33	9	0	0	9	24	97
2020	35	0	0	0	35	9	0	0	9	26	114
NOMINAL	315	0	0	0	315	151	0	0	151	164	
NPV	234	0	0	0	234	120	0	0	120	114	

In-service year of generation unit: 2005
Discount rate: 2.30%

Benefit/Cost Ratio: 1.94

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	4	0	1	0	5	0	0	0	0	0	(5)	(5)
2002	0	5	0	2	0	6	0	0	0	0	0	(6)	(11)
2003	0	5	0	3	0	8	0	0	0	0	0	(7)	(18)
2004	0	5	0	4	0	9	1	0	0	0	1	(9)	(26)
2005	0	0	0	6	0	6	5	1	0	0	6	0	(26)
2006	0	0	0	7	0	7	5	1	0	0	6	(1)	(26)
2007	0	0	0	9	0	9	6	1	0	0	7	(2)	(28)
2008	0	0	0	10	0	10	6	1	0	0	7	(3)	(31)
2009	0	0	0	12	0	12	6	1	0	0	7	(4)	(34)
2010	0	0	0	14	0	14	7	1	0	0	8	(6)	(39)
2011	0	0	0	15	0	15	7	1	0	0	8	(7)	(45)
2012	0	0	0	17	0	17	7	1	0	0	9	(9)	(51)
2013	0	0	0	19	0	19	8	1	0	0	9	(10)	(59)
2014	0	0	0	21	0	21	8	1	0	0	9	(12)	(68)
2015	0	0	0	23	0	23	9	1	0	0	10	(13)	(78)
2016	0	0	0	26	0	26	9	1	0	0	10	(15)	(88)
2017	0	0	0	28	0	28	10	1	0	0	11	(17)	(100)
2018	0	0	0	30	0	30	10	1	0	0	11	(19)	(113)
2019	0	0	0	33	0	33	11	1	0	0	12	(21)	(127)
2020	0	0	0	35	0	35	11	1	0	0	12	(23)	(142)
NOMINAL	0	19	0	315	0	334	127	18	0	0	145	(189)	
NPV	0	18	0	234	0	252	96	14	0	0	110	(142)	

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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(4) BASE YEAR AVOIDED GENERATING UNIT COST	348.9651	$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	6.383827	$/KW
(6) BASE YEAR DISTRIBUTION COST	64.76486	$/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	2.134932	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) 65 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	134	134	1.69	1.69	1.69	1.69	1	1
2002	281	281	1.74	1.73	1.73	1.74	1	1
2003	445	445	1.78	1.78	1.78	1.78	1	1
2004	609	609	1.83	1.83	1.83	1.83	1	1
2005	773	773	1.88	1.87	1.87	1.88	1	1
2006	891	891	1.93	1.92	1.92	1.93	1	1
2007	1009	1009	1.98	1.97	1.97	1.98	1	1
2008	1127	1127	2.03	2.02	2.02	2.03	1	1
2009	1170	1170	2.08	2.08	2.08	2.08	1	1
2010	1213	1213	2.14	2.13	2.13	2.14	1	1
2011	1257.505	1257.505	2.19	2.18	2.18	2.19	1	1
2012	1303.567675	1303.567675	2.25	2.24	2.24	2.25	1	1
2013	1351.242544	1351.242544	2.31	2.30	2.30	2.31	1	1
2014	1400.586033	1400.586033	2.37	2.36	2.36	2.37	1	1
2015	1451.656544	1451.656544	2.43	2.42	2.42	2.43	1	1
2016	1504.514523	1504.514523	2.49	2.48	2.48	2.49	1	1
2017	1559.222531	1559.222531	2.56	2.55	2.55	2.56	1	1
2018	1615.84532	1615.84532	2.62	2.61	2.61	2.62	1	1
2019	1674.449906	1674.449906	2.69	2.68	2.68	2.69	1	1
2020	1735.105653	1735.105653	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

AFUDC Calculation

< -- COST DATA FOR CONSTRUCTION OF PLANT -- >

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	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: CCEL

* UNIT SIZE OF AVOIDED GENERATION UNIT = 546 kW

* INSERVICE COSTS OF AVOIDED GEN. UNIT (000) = $207

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	14	4,067	3	9	96	76	0	46
2006	0.0713	15	4,067	3	9	99	78	0	47
2007	0.0730	15	4,067	3	9	101	80	0	48
2008	0.0747	15	4,067	3	9	104	82	0	49
2009	0.0764	16	4,067	3	9	107	85	0	50
2010	0.0781	16	4,067	3	10	109	87	0	52
2011	0.0799	17	4,067	3	10	112	89	0	53
2012	0.0818	17	4,067	3	10	115	91	0	54
2013	0.0836	17	4,067	4	10	118	94	0	55
2014	0.0856	18	4,067	4	10	121	96	0	57
2015	0.0875	18	4,067	4	11	124	99	0	58
2016	0.0895	18	4,067	4	11	128	101	0	60
2017	0.0916	19	4,067	4	11	131	104	0	61
2018	0.0937	19	4,067	4	11	134	107	0	62
2019	0.0959	20	4,067	4	12	138	109	0	64
2020	0.0981	20	4,067	4	12	141	112	0	66
NOMINAL		275	65,065	56	163	1,879	1,492	0	881
NPV		210		43	125	1,437	1,141	0	674

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

AVOIDED T & D AND PROGRAM FUEL BENEFITS

PROGRAM: CCEL

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

* INSERVICE COSTS OF AVOIDED DIST. (000) = $24

(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	2
2003	0	0	0	0	0	0	4
2004	0	0	0	0	0	0	6
2005	0	1	2	2	6	8	8
2006	0	1	2	2	6	8	9
2007	0	1	2	2	6	8	11
2008	0	2	2	2	7	8	13
2009	0	2	2	2	7	9	14
2010	0	2	2	2	7	9	15
2011	0	2	2	2	7	9	16
2012	0	2	2	2	7	9	17
2013	0	2	2	2	7	9	18
2014	0	2	2	2	8	10	19
2015	0	2	2	2	8	10	20
2016	0	2	2	2	8	10	21
2017	0	2	2	2	8	10	23
2018	0	2	2	2	8	11	24
2019	0	2	2	2	8	11	26
2020	0	2	2	2	9	11	27
NOMINAL	5	27	32	32	118	149	291
NPV	4	21	24	24	90	114	220

* 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	39	1	0	0	1	1
2002	121	2	0	0	2	2
2003	211	4	0	0	4	4
2004	307	6	0	0	6	6
2005	402	8	0	0	8	8
2006	484	9	0	0	9	9
2007	553	11	0	0	11	11
2008	621	13	0	0	13	13
2009	668	14	0	0	14	14
2010	693	15	0	0	15	15
2011	719	16	0	0	16	16
2012	745	17	0	0	17	17
2013	772	18	0	0	18	18
2014	801	19	0	0	19	19
2015	830	20	0	0	20	20
2016	860	21	0	0	21	21
2017	891	23	0	0	23	23
2018	924	24	0	0	24	24
2019	957	26	0	0	26	26
2020	992	27	0	0	27	27
NOMINAL	12,592	291	0	0	291	291
NPV		220	0	0	220	220

* 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	8	0	8	0	0	0	5	0	5	37	1	5	5	0	0	0	0
2002	9	0	9	0	0	0	6	0	6	114	2	14	16	0	0	0	0
2003	10	0	10	0	0	0	7	0	7	199	4	26	29	0	0	0	0
2004	11	0	11	0	0	0	7	0	7	288	5	38	43	0	0	0	0
2005	0	0	0	0	0	0	7	0	7	378	7	51	58	0	0	0	0
2006	0	0	0	0	0	0	5	0	5	455	9	63	72	0	0	0	0
2007	0	0	0	0	0	0	5	0	5	520	10	74	84	0	0	0	0
2008	0	0	0	0	0	0	6	0	6	584	12	85	97	0	0	0	0
2009	0	0	0	0	0	0	2	0	2	628	13	94	107	0	0	0	0
2010	0	0	0	0	0	0	2	0	2	652	14	99	113	0	0	0	0
2011	0	0	0	0	0	0	2	0	2	676	15	106	120	0	0	0	0
2012	0	0	0	0	0	0	2	0	2	700	16	112	128	0	0	0	0
2013	0	0	0	0	0	0	2	0	2	726	17	119	136	0	0	0	0
2014	0	0	0	0	0	0	3	0	3	753	18	126	144	0	0	0	0
2015	0	0	0	0	0	0	3	0	3	780	19	134	153	0	0	0	0
2016	0	0	0	0	0	0	3	0	3	809	20	142	162	0	0	0	0
2017	0	0	0	0	0	0	3	0	3	838	21	151	172	0	0	0	0
2018	0	0	0	0	0	0	3	0	3	868	23	160	183	0	0	0	0
2019	0	0	0	0	0	0	4	0	4	900	24	170	194	0	0	0	0
2020	0	0	0	0	0	0	4	0	4	933	26	180	206	0	0	0	0
NOMINAL	39	0	39	0	0	0	82	0	82	11,836	276	1,950	2,225	0	0	0	0
NPV	37	0	37	0	0	0	69	0	69		208	1,476	1,684		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	8	5	0	14	0	0	1	0	1	(13)	(13)
2002	0	9	6	0	15	0	0	2	0	2	(13)	(26)
2003	0	10	7	0	17	0	0	4	0	4	(14)	(39)
2004	0	11	7	0	18	0	0	6	0	6	(12)	(50)
2005	0	0	7	0	7	46	10	8	0	63	56	1
2006	0	0	5	0	5	47	10	9	0	66	61	55
2007	0	0	5	0	5	48	10	11	0	69	63	110
2008	0	0	6	0	6	49	10	13	0	72	66	167
2009	0	0	2	0	2	50	10	14	0	75	73	227
2010	0	0	2	0	2	52	11	15	0	77	75	288
2011	0	0	2	0	2	53	11	16	0	79	77	350
2012	0	0	2	0	2	54	11	17	0	82	80	412
2013	0	0	2	0	2	55	11	18	0	85	82	474
2014	0	0	3	0	3	57	12	19	0	87	85	537
2015	0	0	3	0	3	58	12	20	0	90	87	601
2016	0	0	3	0	3	60	12	21	0	93	90	665
2017	0	0	3	0	3	61	12	23	0	96	93	730
2018	0	0	3	0	3	62	13	24	0	99	96	795
2019	0	0	4	0	4	64	13	26	0	103	99	861
2020	0	0	4	0	4	66	13	27	0	106	103	927
NOMINAL	0	39	82	0	120	881	181	291	0	1,354	1,234	
NPV	0	37	69	0	106	674	139	220	0	1,034	927	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 9.73

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	5	0	0	0	5	5	0	0	5	(0)	(0)
2002	16	0	0	0	16	6	0	0	6	10	10
2003	29	0	0	0	29	7	0	0	7	22	31
2004	43	0	0	0	43	7	0	0	7	36	65
2005	58	0	0	0	58	7	0	0	7	51	112
2006	72	0	0	0	72	5	0	0	5	67	172
2007	84	0	0	0	84	5	0	0	5	79	240
2008	97	0	0	0	97	6	0	0	6	91	318
2009	107	0	0	0	107	2	0	0	2	105	405
2010	113	0	0	0	113	2	0	0	2	111	496
2011	120	0	0	0	120	2	0	0	2	118	590
2012	128	0	0	0	128	2	0	0	2	126	688
2013	136	0	0	0	136	2	0	0	2	133	789
2014	144	0	0	0	144	3	0	0	3	142	895
2015	153	0	0	0	153	3	0	0	3	150	1,004
2016	162	0	0	0	162	3	0	0	3	160	1,117
2017	172	0	0	0	172	3	0	0	3	169	1,235
2018	183	0	0	0	183	3	0	0	3	180	1,357
2019	194	0	0	0	194	4	0	0	4	191	1,484
2020	206	0	0	0	206	4	0	0	4	203	1,615
NOMINAL	2,225	0	0	0	2,225	82	0	0	82	2,144	
NPV	1,684	0	0	0	1,684	69	0	0	69	1,615	

In-service year of generation unit: 2005
Discount rate: 2.30%

Benefit/Cost Ratio: 24.41

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	8	0	5	0	13	1	0	0	0	1	(13)	(13)
2002	0	9	0	16	0	25	2	0	0	0	2	(23)	(36)
2003	0	10	0	29	0	40	4	0	0	0	4	(36)	(70)
2004	0	11	0	43	0	54	6	0	0	0	6	(49)	(115)
2005	0	0	0	58	0	58	53	10	0	0	63	4	(111)
2006	0	0	0	72	0	72	56	10	0	0	66	(6)	(117)
2007	0	0	0	84	0	84	59	10	0	0	69	(15)	(130)
2008	0	0	0	97	0	97	62	10	0	0	72	(25)	(151)
2009	0	0	0	107	0	107	64	10	0	0	75	(32)	(178)
2010	0	0	0	113	0	113	66	11	0	0	77	(36)	(208)
2011	0	0	0	120	0	120	69	11	0	0	79	(41)	(240)
2012	0	0	0	128	0	128	71	11	0	0	82	(46)	(276)
2013	0	0	0	136	0	136	73	11	0	0	85	(51)	(315)
2014	0	0	0	144	0	144	76	12	0	0	87	(57)	(357)
2015	0	0	0	153	0	153	78	12	0	0	90	(63)	(403)
2016	0	0	0	162	0	162	81	12	0	0	93	(69)	(452)
2017	0	0	0	172	0	172	84	12	0	0	96	(76)	(505)
2018	0	0	0	183	0	183	87	13	0	0	99	(84)	(562)
2019	0	0	0	194	0	194	90	13	0	0	103	(92)	(623)
2020	0	0	0	206	0	206	93	13	0	0	106	(100)	(688)
NOMINAL	0	39	0	2,225	0	2,264	1,173	181	0	0	1,354	(910)	
NPV	0	37	0	1,684	0	1,722	895	139	0	0	1,034	(688)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.60

Appendix 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	2005	
(3) IN-SERVICE YEAR FOR AVOIDED T & D	2005	
(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	2.134932	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)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	65 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	1	1	1.69	1.69	1.69	1.69	1	1
2002	1	1	1.74	1.73	1.73	1.74	1	1
2003	2	2	1.78	1.78	1.78	1.78	1	1
2004	2	2	1.83	1.83	1.83	1.83	1	1
2005	3	3	1.88	1.87	1.87	1.88	1	1
2006	4	4	1.93	1.92	1.92	1.93	1	1
2007	5	5	1.98	1.97	1.97	1.98	1	1
2008	5	5	2.03	2.02	2.02	2.03	1	1
2009	6	6	2.08	2.08	2.08	2.08	1	1
2010	7	7	2.14	2.13	2.13	2.14	1	1
2011	9	9	2.19	2.18	2.18	2.19	1	1
2012	10	10	2.25	2.24	2.24	2.25	1	1
2013	12	12	2.31	2.30	2.30	2.31	1	1
2014	14	14	2.37	2.36	2.36	2.37	1	1
2015	16	16	2.43	2.42	2.42	2.43	1	1
2016	18	18	2.49	2.48	2.48	2.49	1	1
2017	21	21	2.56	2.55	2.55	2.56	1	1
2018	24	24	2.62	2.61	2.61	2.62	1	1
2019	28	28	2.69	2.68	2.68	2.69	1	1
2020	32	32	2.76	2.75	2.75	2.76	1	1

CALCULATION OF AFUDC AND IN-SERVICE COST OF PLANT
PLANT: 2005 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)
1996	-9	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1997	-8	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1998	-7	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2001	-4	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2002	-3	0.0%	1.0000	0.0%	0.00	0.00	0.00	0.00	0.00	0.00
2003	-2	2.3%	1.0230	25.0%	89.25	44.62	44.62	2.45	91.70	91.70
2004	-1	2.3%	1.0465	75.0%	273.90	226.20	228.65	12.58	286.48	378.18
2005	0			0.0%	0.00			0.00	0.00	
				1.00	363.15			15.03	378.18	

IN-SERVICE YEAR = 2005

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

AFUDC Calculation

YEAR	NUMBER OF YEARS BEFORE INSERVICE	ANNUAL PLANT COST ESCALATION RATE (%)	YEARLY EXPENDITURE (%)
1996	-9	0.0%	0.0%
1997	-8	0.0%	0.0%
1998	-7	0.0%	0.0%
1999	-6	0.0%	0.0%
2000	-5	0.0%	0.0%
2001	-4	0.0%	0.0%
2002	-3	0.0%	0.0%
2003	-2	2.3%	25.0%
2004	-1	2.3%	75.0%
2005	0	2.3%	0.0%

< -- COST DATA FOR CONSTRUCTION OF PLANT -- >

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 = 3 kW

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

(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	0.0000	0	0	0	0	0	0	0	0
2005	0.0697	0	24	0	0	1	0	0	0
2006	0.0713	0	24	0	0	1	0	0	0
2007	0.0730	0	24	0	0	1	0	0	0
2008	0.0747	0	24	0	0	1	0	0	0
2009	0.0764	0	24	0	0	1	1	0	0
2010	0.0781	0	24	0	0	1	1	0	0
2011	0.0799	0	24	0	0	1	1	0	0
2012	0.0818	0	24	0	0	1	1	0	0
2013	0.0836	0	24	0	0	1	1	0	0
2014	0.0856	0	24	0	0	1	1	0	0
2015	0.0875	0	24	0	0	1	1	0	0
2016	0.0895	0	24	0	0	1	1	0	0
2017	0.0916	0	24	0	0	1	1	0	0
2018	0.0937	0	24	0	0	1	1	0	0
2019	0.0959	0	24	0	0	1	1	0	0
2020	0.0981	0	24	0	0	1	1	0	0
NOMINAL		2	388	0	1	11	9	0	5
NPV		1		0	1	9	7	0	4

* 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	1	0
NPV	0	0	0	0	0	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	0	0	0	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	0	0	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	1	1	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	11	0	11	0	0	14	14	0	0	0	0
NPV	0	0	0	0	0	0	8	0	8		0	10	10		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	0	0	0	0	0	0	0	0	(0)	(0)
2002	0	0	0	0	0	0	0	0	0	0	0	(0)
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)	(1)
2014	0	0	1	0	1	0	0	0	0	0	(0)	(1)
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	0	(1)	(2)
2018	0	0	1	0	1	0	0	0	0	0	(1)	(2)
2019	0	0	2	0	2	0	0	0	0	0	(1)	(3)
2020	0	0	2	0	2	0	0	0	0	0	(1)	(4)
NOMINAL	0	0	11	0	11	5	1	0	0	6	(5)	
NPV	0	0	8	0	8	4	1	0	0	5	(4)	

Discount Rate: 2.30%
Benefit/Cost Ratio [col (11) / col (6)]: 0.57

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	0	0	0	0	(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	0
2009	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0	0
2011	1	0	0	0	1	1	0	0	1	(0)	0
2012	1	0	0	0	1	0	0	0	0	0	0
2013	1	0	0	0	1	1	0	0	1	0	0
2014	1	0	0	0	1	1	0	0	1	0	1
2015	1	0	0	0	1	1	0	0	1	0	1
2016	1	0	0	0	1	1	0	0	1	0	1
2017	1	0	0	0	1	1	0	0	1	0	1
2018	1	0	0	0	1	1	0	0	1	0	1
2019	2	0	0	0	2	2	0	0	2	0	2
2020	2	0	0	0	2	2	0	0	2	0	2
NOMINAL	14	0	0	0	14	11	0	0	11	3	
NPV	10	0	0	0	10	8	0	0	8	2	

In-service year of generation unit: 2005
Discount rate: 2.30%

Benefit/Cost Ratio: 1.23

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	0	0	0	0	0	0	(0)	(0)
2002	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)
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	(0)
2006	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)
2008	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)
2010	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
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)	(1)
2013	0	0	0	1	0	1	0	0	0	0	0	(0)	(1)
2014	0	0	0	1	0	1	0	0	0	0	0	(0)	(1)
2015	0	0	0	1	0	1	0	0	0	0	0	(1)	(2)
2016	0	0	0	1	0	1	0	0	0	0	0	(1)	(2)
2017	0	0	0	1	0	1	0	0	0	0	0	(1)	(3)
2018	0	0	0	1	0	1	0	0	0	0	0	(1)	(4)
2019	0	0	0	2	0	2	0	0	0	0	0	(1)	(4)
2020	0	0	0	2	0	2	0	0	0	0	0	(2)	(5)
NOMINAL	0	0	0	14	0	14	5	1	0	0	6	(8)	
NPV	0	0	0	10	0	10	4	1	0	0	5	(5)	

Discount rate: 2.30%
Benefit / Cost Ratio [col (12) / col (7)]: 0.46