

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition for Approval of) DOCKET NO. 941232-EI
Modifications to Residential) ORDER NO. PSC-95-0434-FOF-EI
Load Management Rate Schedule By) ISSUED: MARCH 31, 1995
Florida Power Corporation)
_____)

The following Commissioners participated in the disposition of this matter:

SUSAN F. CLARK, Chairman
J. TERRY DEASON
JOE GARCIA
JULIA L. JOHNSON
DIANE K. KIESLING

ORDER GRANTING PETITION FOR APPROVAL OF MODIFICATIONS
TO RESIDENTIAL LOAD MANAGEMENT RATE SCHEDULE

BY THE COMMISSION:

On November 22, 1994, Florida Power Corporation (FPC) filed a petition for approval of modifications to Rate Schedule RSL-1, Residential Load Management, with a proposed effective date of April 1, 1995. FPC filed an amended petition on December 27, 1994, that reflected a reduction in the notice period required of a residential load management customer in order for the company to transfer that customer to standard service. On February 17, 1995, the Legal Environmental Assistance Foundation, Inc. (LEAF) petitioned to intervene in this docket. LEAF's petition was granted by Order No. PSC-95-0258-PCO-EI, issued on February 24, 1995.

Florida Power Corporation has offered its voluntary residential load management (RLM) program as a dispatchable demand-side management program since 1980. Customers who participate in this program receive a monthly credit from FPC in return for the right to interrupt electric service to certain appliances. The RLM program allows FPC to reduce peak demand, resulting in the avoidance or deferral of need for new generating sources. The program's primary cost is the participant credit, or incentive. The program's primary benefit is the cost savings associated with the avoidance or deferral of generating capacity.

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FPSC-RECORDS/REPORTING

Since 1982, the level of credits paid to participants has not changed. However, FPC asserts that the cost of the generating unit avoided by RLM has decreased since that time. This brings into question the cost-effectiveness of the program.

FPC evaluates DSM measures using the PROSCREEN and DSView planning models, which were employed by FPC in the Conservation Goals Docket (Docket No. 930549-EG). While these models represent state-of-the-art planning tools, DSView calculates a DSM program's expected costs and benefits using only the loss of load probability (LOLP) reliability criterion. The sole application of LOLP understates the value of the RLM program as a winter reserve margin resource. This is primarily because load management has a high availability.

FPC performed an in-depth review of the existing RLM program using DSView. The analysis, relying solely on LOLP, showed that FPC's existing RLM program failed the Rate Impact Measure (RIM) test with a benefit-cost ratio of 0.48. Performing a manual calculation which takes into account both LOLP and reserve margin, FPC found the existing RLM program to be marginally cost-effective, with a benefit-cost ratio of 0.88. The derivation of this value is shown in Appendix B, page 1 of 2.

As a result, on November 22, 1994, FPC petitioned the Commission for approval of modifications to its residential load management tariff, RSL-1. In its petition, FPC requested approval of five primary changes:

- reduction of each incentive level listed in RSL-1 by \$1.00;
- restriction of RLM program participation for new customers to those whose energy usage averages at least 600 kilowatt-hours (kWh) per month over the previous twelve month period;
- payment of monthly incentives, pursuant to the four schedules listed in RSL-1, only to participants who use at least 600 kWh of energy during that month;
- requirement that new RLM program participants who select the swimming pool pump option (included in Schedule C) also select at least one other schedule; and
- elimination of the thermal storage option (Schedule D) for new RLM program participants.

Pursuant to Rule 25-6.0438(4)(c), Florida Administrative Code, FPC sent each participating customer a notice of the proposed changes to its RLM program. A copy of this notice is attached as Appendix A.

In Order No. PSC-94-1618-FOF-EG, issued on December 28, 1994, the Commission suspended rate schedule RSL-1 to allow time for discovery to be completed on FPC's proposed tariff modifications.

FPC's Existing RSL-1 Tariff

Because the RLM program is a significant component of FPC's new DSM plan, which was filed on February 22, 1995, FPC requested that the RLM program be considered separately from other programs in its DSM plan.

FPC's existing RSL-1 tariff has four interruption schedules. The monthly credit paid to participants under these schedules is limited by the "40% Rule", which scales the maximum credit shown in the RSL-1 tariff according to the participant's monthly kWh energy usage. The 40% Rule limits the actual monthly credit to the lesser of: (1) the maximum amount specified in the RSL-1 tariff or (2) 40% of the participants non-fuel energy charge (currently 4.02 cents/kWh).

The following is a description of the four interruption schedules that comprise the existing RLM program:

Schedule A: Interrupt central heating and/or cooling equipment during peak demand periods for up to 10 minutes during any 30-minute interval. Maximum monthly credit of \$3.00 for heating and \$2.00 for cooling. Credit level has not changed since adoption in 1982.

Schedule B: Interrupt central heating and/or cooling equipment during peak demand periods for up to 16.5 minutes during any 30-minute interval. Maximum monthly credit of \$9.00 for heating and \$6.00 for cooling. Credit level has not changed since adoption in 1982.

Schedule C: Interrupt water heater and/or swimming pool pump during peak demand periods up to 300 minutes continuously. Maximum monthly credit of \$4.50 for water heater and \$3.50 for pool pump. Credit level has not changed since adoption in 1982.

Schedule D: Interrupt central heating continuously during peak periods. Separate hot water tank uses thermal storage to supply heat during times that central heating system is interrupted. Maximum monthly credit of \$9.00. Credit level has not changed since adoption in 1990.

The impact of all of FPC's proposed changes to the RSL-1 tariff result in a RIM benefit-cost ratio increase from 0.88 to 1.2, as shown in Appendix B, page 2 of 2. The 1.2 margin appears to be reasonable given the significant participation in FPC's RLM program.

A copy of the proposed changes to FPC's residential load management tariff RSL-1 is attached as Appendix C. A discussion of FPC's requested tariff changes follows:

1. **Decrease by \$1.00 the incentive listed in each schedule listed in the RSL-1 tariff.**

FPC proposed a decrease in the maximum credit listed in the RSL-1 tariff as one way to improve the benefit-cost ratio of the RLM program. As noted before, the existing credits have been in place for over a decade while avoided generating unit costs have dropped significantly. The \$1.00 reduction is an across-the-board decrease, so there is no discrimination among any of the four existing interruption schedules.

FPC's actions in this instance are reasonable, and therefore, are approved.

2. **Restrict RLM program participation for new customers to those whose energy usage averages at least 600 kWh per month over the previous twelve month period.**
3. **Pay monthly incentives to participants only when they use at least 600 kWh of energy during that month.**

These two proposed changes to the RSL-1 tariff are similar in that, on the surface, they appear to discriminate against the low energy (kWh) user. Many low energy users have expressed their concerns over FPC's proposed changes with the Commission. The Commission has answered more than thirty letters and received nearly 200 calls in response to FPC's customer notice. In nearly every instance when a customer has called or written about FPC's proposed tariff revision, the complaint has centered around the elimination of credits when a participant uses less than 600 Kwh of energy.

While the manual calculation showed the existing RLM program to marginally pass RIM at this time, FPC re-examined the expected demand savings (per participant and total) attributed to the program. A July, 1993 load research study confirmed that the aggregate demand reduction of RLM was close to the per-participant average winter peak reduction of 1.87 kW that is assumed under the existing program.

There is a direct correlation, however, between energy usage and the amount of peak demand reduction achieved by load management. In other words, customers who use more energy also place more peak demand on the electric system. FPC found that peak demand reduction from low energy use participants is less than the system per-participant average of 1.87 kW. FPC further found that, on average, a participant must use a minimum of 600 Kwh of energy per month to achieve the 1.87 kW per-participant average. While low energy users contribute to the 1.87 Kw average value, the 600 Kwh threshold ensures that the RLM program will remain cost-effective in the future.

FPC has noted that low-energy using participants have been subsidized under the existing RLM program since its inception. During off-peak months (fall and spring), low energy users are likely to use less than 600 kWh per month but still receive a credit under the existing program. It is believed that once FPC's proposed changes are approved, credits will be paid on a more seasonal basis (summer and winter peak periods), which better correlates with the times that FPC uses load management. Thus, low energy users may still be eligible for the monthly credit during months they likely would have been interrupted. FPC's observations and analysis of the effects of these changes is reasonable.

It should be noted that customer participation in the RLM program is, and always has been, voluntary. Revised tariff provisions, filed with the Commission on December 23, 1994 and included in Appendix C, allow a customer to cease participation in the program for any reason by giving 45 days notice to FPC.

By paying credits to participants only when they use at least 600 kWh in a month, FPC ensures that those customers who contribute most to peak demand (and, therefore, contribute more demand savings via load management) receive incentives proportional to those contributions, subject to the 40% rule.

FPC expects the proposed tariff changes to minimally impact program participation (due to participant cancellation) and expected kW demand savings. Program participation currently exceeds 500,000 customers. Given the large number of participants, and the fact that load management currently contributes over 90% towards FPC's reserve margin, concerns have been raised as to how the proposed tariff revisions will impact existing and future participation in the RLM program. FPC, therefore, shall file, for a period of one year, monthly reports detailing the following information:

- number of FPC customers eligible to participate in the RLM program;
 - number of RLM program participants;
 - number of new RLM participants signed up during the month; and
 - number of existing RLM participants who terminated service in the program.
4. **Require new RLM program participants who select the swimming pool pump option (Schedule C) to select at least one other schedule (Schedule A or Schedule B).**

FPC's existing pool pump option, included in Schedule C, assumes a per-participant demand reduction of 0.5 kW for both winter and summer. FPC found that peak demand savings from pool pumps are seasonal, meaning that at the time of interruption, FPC gains more demand reduction during summer than winter. This fact led FPC to revise its assumed per-participant demand savings, to 0.67 kW for summer and 0.17 kW for winter. Because it has gained comparatively small winter peak savings from the pool pump option, and because it is a winter-peaking utility, FPC argues that continuing this end use as a stand-alone option is not desirable. Over 99% of existing RLM participants who have the pool pump option also participate under either Schedule A or Schedule B. Given this fact, the proposed change is technically correct but will have minimal impact. FPC should realize some labor savings because a contractor will have to make only one trip to the residence to install load management equipment on both appliances.

Because FPC's proposed modification to the pool pump option will lead to administrative efficiency and appears to minimally impact future program participants, this change is approved.

5. **Discontinue the thermal storage option (Schedule D) for new RLM program participants.**

FPC's thermal storage ("Heatworks") program, included in Schedule D, uses a 120-gallon thermal storage tank and heat exchanger equipment to supply heat during times that FPC interrupts service to the central heating system under Schedule B. Electric service to the customer's regular water heater is also interrupted during times when FPC charges the thermal storage tank, which is done during off-peak periods.

The Heatworks program pays a one-time \$50 incentive for the installation of the thermal storage tank and equipment. The existing program assumes an average per-participant demand reduction of 8.4 kW, a value based on engineering estimates available at program inception in 1990. Subsequent monitoring of actual installations has shown the actual average per-participant demand savings to be 5.6 kW. The decrease in demand savings, occurring without a corresponding reduction in installation and labor costs, has affected the thermal storage program's cost-effectiveness. FPC found that the thermal storage option has a benefit-cost ratio of 0.57 using the RIM test.

Further, FPC has found that the market potential for this program is limited because of the size of the 120-gallon tank, which is placed in the customer's garage. For this reason, and because the program is no longer cost-effective, FPC believes the thermal storage program is no longer viable for new participants. However, FPC does not propose to terminate the program for existing participants. No additional program costs will be incurred to maintain these customers above and beyond the cost of the credit under Schedule B.

The thermal storage program shall, therefore, be discontinued for new participants but retained for existing participants.

FPC's proposed RLM credit reductions will affect not only program participants, but the overall body of FPC's ratepayers as well. All RLM program expenses, including customer incentives, are collected directly through the Commission's Energy Conservation Cost Recovery (ECCR) Clause. A reduction in customer credits paid will mean a dollar-for-dollar reduction in expenses collected through ECCR. Furthermore, because the proposed tariff changes allow the program to pass the RIM test, all customers benefit regardless of participation.

When the Commission reviews conservation programs, three criteria are considered:

1. Whether the program advances the policy objectives of Rule 25-17.001, Florida Administrative Code, and Sections 366.80-.85, Florida Statutes, also known as the "Florida Energy Efficiency and Conservation Act" (FEECA);
2. Whether the program is directly monitorable and yields measurable results; and
3. Whether the program is cost-effective.

FPC's RLM program continues to meet the policy objectives of Rule 25-17.001, Florida Administrative Code, and FEECA; it has shown itself to be monitorable; it has yielded measurable results (which led to FPC's petition in this docket); and it is cost-effective under the RIM, TRC, and Participant tests. It must be emphasized, however, that the prudence of expenditures for the RLM program will not be addressed in this docket; such a review will be performed in the ECCR Docket (950002-EG).

Based on the foregoing, it is therefore

ORDERED that Florida Power Corporation's proposed modifications to its Residential Load Management rate schedule, tariff RSL-1, are approved. It is further

ORDERED that Florida Power Corporation shall file monthly reports detailing the program participation levels as discussed within the body of this Order. It is further

ORDERED that Florida Power Corporation shall file revised Residential Load Management program standards, identifying the rules and procedures for implementing this program, for administrative approval. These standards shall become effective 21 days from issuance of this Order. It is further

ORDERED that the modifications to tariff RSL-1 shall become effective April 1, 1995. If a protest is filed, the revised RSL-1 tariff shall remain in effect, subject to rebate. It is further

ORDERED that if no substantially affected person files a timely request for a Section 120.57, Florida Statutes, hearing within 21 days, no further action will be required and this docket shall be closed.

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By ORDER of the Florida Public Service Commission, this 31st
day of March, 1995.

BLANCA S. BAYÓ, Director
Division of Records and Reporting

by: Kay Hagan
Chief, Bureau of Records

(S E A L)

BC

DISSENT

Commissioners Garcia and Johnson dissent from the decision in
this Order.

COMMISSIONER GARCIA

The Commission is responsible for regulating the operations of
all investor-owned electric and natural gas companies, the
telephone industry and many water/wastewater companies in the
state. The Commission monitors the rates and services of these
utilities, as well as each utility's safety and consumer practices.
In assuming these responsibilities, the Commission's primary charge
is to ensure that all utility customers receive fair rates.

It is this primary charge that I feel we have neglected in our
decision in this docket. Although I recognize that the Commission
is legally obliged to see that the regulated utilities are given
the opportunity to earn a reasonable return on their investments,
I do not believe that this obligation must be fulfilled at the
expense of a segment of consumers who are making a concerted effort
to reduce their energy consumption.

As a result of the decision made today, a number of those same
consumers will have difficulty adjusting to the added financial
burden created by the credit reduction. Many consumers on fixed
incomes rely on Florida power Corporation's RLM credit to keep them
within their budget. For some, this credit reduction could result
in the permanent interruption of electric service. For those

consumers who are not on a fixed income, this credit reduction sends the message that it is not worth the effort to conserve beyond a certain point. If the concept of conservation is to finally take root in the collective mind of the consumers of this state, then every consumer's efforts must be given equal importance. We must not send the message that certain types of conservation are preferred over others, particularly where the preference prejudices the sector of the public most vulnerable to unexpected economic burdens, as is the case with low-level electric consumers living on fixed incomes.

It is true that the ultimate goal of any load management program is the reduction of peak energy demand and that the cost-effectiveness of such programs is a key factor in maintaining conservation efforts in a competitive environment. We seem to have lost sight, however, of the consumers' needs in our attempts to balance competition and conservation. At the very least, what has been given to low-level electric consumers currently subscribing to the load management program, should not be taken away. Low-level residential consumers should not be penalized for their extraordinary personal efforts to conserve.

For the above reasons, I dissent from the decision in this case.

COMMISSIONER JOHNSON

I share Commissioner Garcia's opinion on this matter, but I have some additional concerns I would like to address.

The Florida Legislature directed this Commission, through the Florida Energy Efficiency and Conservation Act, Sections 366.80 - 366.85, Florida Statutes, to encourage the conservation of electricity. Although I recognize the value of load management in reducing the need for new power plants, I believe that in order to achieve the overall goal of conserving electricity we should encourage personal efforts to reduce electric consumption by sending correct pricing signals. I believe we send out the wrong price signal when we effectively discourage the personal efforts of low-usage customers who make a conscious attempt to reduce their overall electric consumption. I, therefore, do not believe that we are fulfilling the conservation directive by rewarding high-usage customers with a load management credit and denying low-usage customers the opportunity to receive a similar credit (unless they increase their usage).

The Commission's decision further distorts a residential rate design that makes low-usage customers pay more per kWh than high-usage customers. When all customers, regardless of usage, pay the same fixed customer charge, low-usage customers pay more for each kWh than high-usage customers, on a total bill basis. The message we are sending is, "the more you use, the less you pay per kWh." This message does not encourage conservation.

I cannot provide an ultimate answer, but a number of solutions have been suggested that are deserving of further exploration:

1. Implementation of a terraced rate structure by charging less per kWh for the first 600 kWh used by all customers. Those customers using above the 600 kWh threshold would be charged a higher rate per kWh over the 600 kWh threshold. An extremely high rate per kWh over a 2000 kWh threshold might also be feasible. Such a rate structure would not be discriminatory because all customers would receive the benefit of lower rates per kWh below the 600 kWh threshold. As usage increases, so would the rates. All customers would have the opportunity to adjust their own use to fit within the lower rate brackets. Note that 600 kWh and 2000 kWh are merely suggested points at which the rate per kWh might be altered.

2. Elimination of the customer charge so that high-usage customers do not get charged less per kWh on a total bill basis.

3. Implementation of a mandatory Time-of-Use pricing, whereby the rate per kWh charged to the customer is based upon the cost to produce that electricity at the time of use. Customers would, therefore, be charged less per kWh during off-peak periods and could adjust their usage patterns accordingly.

In addition to relaying an inappropriate message concerning conservation, the Commission should be aware of the effect this reduction in credits may have on some customers. We should take care to avoid "rate shock," especially when low-usage customers are the only customers affected by the Commission's action. Low-usage customers are quite often consumers on a restricted budget who will have difficulty adjusting to any increase in their electric bills. The Commission should, at the very least, explore the possibility of more gradually phasing-in the elimination of load-management credits for low-usage customers.

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

The Commission's decision on this tariff is interim in nature and will become final, unless a person whose substantial interests are affected by the action proposed files a petition for a formal proceeding, as provided by Rule 25-22.036(4), Florida Administrative Code, in the form provided by Rule 25-22.036(7)(a)(d) and (e), Florida Administrative Code. This petition must be received by the Director, Division of Records and Reporting, 101 East Gaines Street, Tallahassee, Florida 32399-0870, by the close of business on April 21, 1995.

In the absence of such a petition, this order shall become final on the day subsequent to the above date.

Any objection or protest filed in this docket before the issuance date of this Order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

If this Order becomes final on the date described above, any party adversely affected may request judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or by the First District Court of Appeal in the case of a water or wastewater utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days of the date this Order becomes final, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

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APPENDIX A

APPENDIX A

CUSTOMER NOTICE

A
Notice
To Energy
Management
Customers.

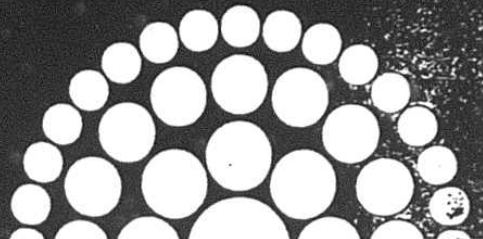
You've got the power!



Florida
Power
CORPORATION

Florida Power Services

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In recent years, your participation in the Energy Management (EM) Program has allowed Florida Power to conserve valuable energy resources and delay the construction of expensive power plants. This has also resulted in saving money for hundreds of thousands of customers just like you.

In order to further improve the effectiveness of this program, and to control the overall cost of electricity to all our customers, Florida Power is requesting approval from the Florida Public Service Commission to modify the Energy Management program.

We are requesting the changes so monthly credits will more accurately reflect the value of each participant's actual contribution to the program. These will be the first changes to the monthly credits for this program since it began in 1980 and are needed in order to continue the success of the program. If approved, we are requesting the changes take effect in April of 1995.

The proposed modifications are:

- Energy Management customers using less than 600 kilowatt-hours (kwh) will no longer receive a credit during that month. Customers using more than 600 kwh will receive a credit, but on a reduced basis according to their usage. Please refer to the chart at right to determine your maximum credit.

This chart reflects the maximum credit available during the winter season for a customer with central heating (Schedule B), water heater and pool pump on the program.

Monthly kwh Usage	Maximum Winter EM Credit (\$)
600 (or less)	\$0.00
800	\$3.20
1,000	\$6.40
1,200	\$9.60
1,400	\$12.80
1,470 (or more)	\$14.00

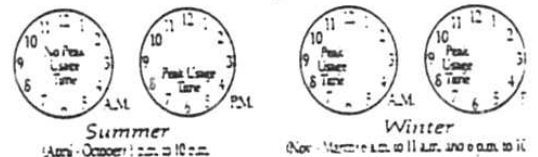
- Each appliance credit will be reduced by \$1.00. The chart below shows the existing and proposed credits by appliance option (Schedule B). The maximum credit for a customer with central heating and air conditioning, water heater, and pool pump on the program will be \$14.00 during the winter months and \$11.00 during the summer months.

	Winter Season	Water Heater	Pool Pump	Pool Heating
Proposed Credit	\$3.50	\$2.50	\$8.00	
Present Credit	\$4.50	\$3.50	\$9.00	
	Water Heater	Pool Pump	Pool Heating	Central Heating
Proposed Credit	\$3.50	\$2.50	\$5.00	
Present Credit	\$4.50	\$3.50	\$6.00	

- Pool pumps that are already on the program can continue. Pool pumps can be added for new Energy Management customers only if they are combined with other appliance options.
- No new customers will be added to the Heatworks (thermal storage) program. Customers already on Heatworks can continue on the program.

It is proposed that the typical peak time periods during which we may activate the program will remain the same however, due to our system operating limitations, interruptions may continue beyond these time periods.

Peak Usage Times



While your Energy Management credits will be lower, these changes will help us lower the cost of electricity for all customers.

Thank you for your continued participation in the Energy Management program. We feel these changes will provide for its future success. If you have any questions about the proposed changes, please call your local Florida Power office.

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APPENDIX B

APPENDIX B

CALCULATION OF RATE IMPACT MEASURE (RIM)
FROM DUAL RELIABILITY PERSPECTIVE

FLORIDA POWER CORPORATION
 CALCULATION OF RATE IMPACT MEASURE (RIM)
 FROM DUAL RELIABILITY PERSPECTIVE

PROGRAM: Residential Load Management
 STATUS OF PROGRAM: As on file

	<u>Column A</u>	<u>Column B</u>
	<u>Reliability Standard Applied</u>	
		65.5% LOLH/ 34.5% Reserve
	100% LOLH	Margin
	<u>(Net Present Value In 000's)</u>	
Benefits:		
Production Cost Savings	\$35,366	\$35,366
Deferred T&D Capacity Savings	10,739	10,739
Deferred Generation Capacity Savings	61,494	155,204
Utility Revenue Increase	0	0
Total Benefits	<u>107,599</u>	<u>201,309</u>
Costs:		
DSM Expenses	23,634	23,634
Incentive Payments	154,556	154,556
Utility Revenue Decrease	19,961	19,961
Total Costs	<u>198,151</u>	<u>198,151</u>
Net Benefits	<u>(\$90,552)</u>	<u>\$3,158</u>
Benefit/Cost Ratio	<u>0.54</u>	<u>1.02</u>

Note: This exhibit presents two sets of RIM test results for Florida Power Corporation's Residential Load Management program. Column A recaps the RIM test results generated by the DS View model (see Exhibit A); DS View applies a system reliability standard based solely on loss of load hours (LOLH). Column B contains the RIM test results generated by applying a dual reliability standard. Application of this dual reliability standard is consistent with Florida Power's historical planning criteria, in which generation capacity cost savings are weighted for 65.5% LOLH and 34.5% Reserve Margin criteria.

FLORIDA POWER CORPORATION
 CALCULATION OF RATE IMPACT MEASURE (RIM)
 FROM DUAL RELIABILITY PERSPECTIVE

PROGRAM: Residential Load Management
 STATUS OF PROGRAM: As proposed

	<u>Column A</u>	<u>Column B</u>
	<u>Reliability Standard Applied</u>	
		65.5% LOLH/ 34.5% Reserve
	100% LOLH	Margin
	(Net Present Value In 000's)	
Benefits:		
Production Cost Savings	\$35,366	\$35,366
Deferred T&D Capacity Savings	10,739	10,739
Deferred Generation Capacity Savings	61,494	155,204
Utility Revenue Increase	0	0
Total Benefits	<u>107,599</u>	<u>201,309</u>
Costs:		
DSM Expenses	23,634	23,634
Incentive Payments	90,074	90,074
Utility Revenue Decrease	19,961	19,961
Total Costs	<u>133,669</u>	<u>133,669</u>
Net Benefits	<u>(\$26,070)</u>	<u>\$67,640</u>
Benefit/Cost Ratio	0.80	1.51

Note: This exhibit presents two sets of RIM test results for Florida Power Corporation's Residential Load Management program. Column A recaps the RIM test results generated by the DS View model (see Exhibit I); DS View applies a system reliability standard based solely on loss of load hours (LOLH). Column B contains the RIM test results generated by applying a dual reliability standard. Application of this dual reliability standard is consistent with Florida Power's historical planning criteria, in which generation capacity cost savings are weighted for 65.5% LOLH and 34.5% Reserve Margin criteria.

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APPENDIX C

APPENDIX C

MODIFICATION TO LOAD MANAGEMENT TARIFF
LEGISLATIVE FORMAT



SECTION NO. VI
 TWELFTH EDITION REVISED SHEET NO. 6.131
 CANCELS ELEVENTH EDITION REVISED SHEET NO. 6.131

Rate Code
 91

RATE SCHEDULE RSL-1
 RESIDENTIAL LOAD MANAGEMENT

Availability:
 Available only within the range of the Company's load management system.

Applicable:
 To Customers eligible for residential service only under Rate Schedule RS-1 ~~who elect to participate in this rate schedule~~ having a minimum average monthly usage of 600 kWh (based on the most recent 12 months or, where not available, a projection for 12 months), and utilize any of the following electrical equipment:

1. Water Heater
2. Central Electric Heating System
3. Central Electric Cooling System
4. Swimming Pool Pump

Character of Service:
 Continuous service, alternating current, 60 cycle, single-phase, at the Company's standard distribution secondary voltage available. Three-phase service, if available, will be supplied only under the conditions set forth in the Company's booklet "Requirements for Electric Service and Meter Installations."

Limitation of Service:
 Service to the electrical equipment specified above may be interrupted at the option of the Company by means of load management devices installed on the Customer's premises.

For new service requests after the effective date of this tariff, customers who select the swimming pool pump schedule must also select at least one other schedule.

~~An alternative thermal storage heating system is available to qualifying customers under Special Provision No. 7 of this rate schedule.~~

An installation of an alternative thermal storage heating system under Special Provision No. 7 of this rate schedule is not available after the effective date of this tariff.

Standby or resale service not permitted hereunder. Service under this rate is subject to the Company's currently effective and filed "General Rules and Regulations for Electric Service."

Rate Per Month:

Customer Charge:	\$8.85
Energy and Demand Charge:	4.020¢ per kWh
Non-Fuel Charge:	See Sheet No. 6.105
plus Energy Conservation Cost Recovery Factor:	See Sheet No. 6.106
plus Capacity Cost Recovery Factor:	
Additional Charges:	See Sheet No. 6.105
Fuel Cost Recovery Factor:	See Sheet No. 6.106
Gross Receipts Tax Factor:	See Sheet No. 6.106
Franchise Fee:	See Sheet No. 6.106
Municipal Tax:	

Load Management Credit Amounts:^{1,2}

(a) Load Management Program (monthly credits)

Interruptible Equipment	Interruption Schedule			
	A	B	C	D
Water Heater			\$7,5083.50	
Central Heating System ³	\$2,0082.00	\$2,0088.00		\$2,0088.00
Central Heating System w/Thermal Storage ³				
Central Cooling System ⁴	\$2,0081.00	\$4,0085.00		
Swimming Pool Pump			\$7,5082.50	

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(b) Advanced Load Management Program (per day interrupted credits)

Interruptible Equipment

$$\text{Central Cooling System}^1 = \$4.50 \times \left(\frac{\%}{50} - 1 \right)$$

$$\text{Central Heating System}^2 = \$3.00 \times \left(\frac{\%}{50} - 1 \right)$$

$$60 \leq \% \leq 100$$

% = Customer selected maximum interruption %

- Notes:
- (1) Load management credits shall not exceed 40% of the Non-Fuel Charge associated with kWh consumption in excess of 600 kWh/month.
 - (2) For Central Heating and Cooling Systems, selection of Interruption Schedule A, Schedule B, Advanced Load Management is at the option of the Customer.
 - (3) For the billing months of November through March only.
 - (4) For the billing months of April through October only.

Interruption Schedules:

- Schedule A Equipment interruptions will not exceed an accumulated total of 10 minutes during any 30 minute interval within the Company's designated Peak Periods.
- Schedule B Equipment interruptions will not exceed an accumulated total of 16.5 minutes during any 30 minute interval within the Company's designated Peak Periods.
- Schedule C Equipment may be interrupted continuously, not to exceed 300 minutes, and during the Company's designated Peak Periods. Where a thermal storage system has been installed hereunder, additional interruptions to the water heater will be made during periods of charging thermal storage system.
- Schedule D The regular heating system may be interrupted continuously and alternative heating provided by means of a thermal storage system installed hereunder.
- Advanced Under the Advanced Load Management Program, Customers may select from among company determined interruption schedules for the central heating systems and/or central cooling systems ranging from 18 minutes during any 30-minute interval to 30 minutes during any 30-minute interval.

Customers participating in the Advanced Load Management Program must also be Interruption Schedule B participants. Under the Advanced Load Management Program, Customers will receive an Advanced Load Management credit for each day (midnight to midnight) in which this program is implemented. This credit will be in addition to the Customer's monthly load management credits.

Peak Periods:

The Peak Periods expressed in terms of prevailing clock time shall be, but are not limited to these as follows:

- (1) For the calendar months of November through March,
All Days: 6:00 a.m. to 11:00 a.m., and
6:00 p.m. to 10:00 p.m.
- (2) For the calendar months of April through October,
All Days: 1:00 p.m. to 10:00 p.m.

Terms and Conditions:

All terms and conditions of Rate Schedule RS-1, Residential Service, i.e., Fuel Charges and other Billing Adjustments, Minimum Monthly Bill, Terms of Payment, Term of Service, and Average Billing Plan, shall apply to service under this rate schedule.

Special Provisions:

1. The Company shall be allowed reasonable access to the Customer's premises to install, maintain, inspect, test and remove load management devices on the electrical equipment specified above.
2. Prior to the installation of load management devices, the Company may inspect the Customer's electrical equipment to ensure good repair and working condition, but the Company shall not be responsible for the repair or maintenance of the electrical equipment.

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SECTION NO. VI
~~EIGHTH SEVENTH REVISED SHEET NO. 6.131~~
CANCELS ~~SEVENTH SEVENTH REVISED SHEET NO. 6.131~~

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3. The Company shall not be required to install load management devices on electrical equipment which would not be economically justified for reasons, such as, excessive installation costs, insufficient load, oversized heating or cooling equipment, or abnormal utilization of equipment, including but not limited to, vacation or other limited occupancy residences or qualifying common use facilities.
4. Multiple units of any electrical equipment specified above must all be installed with load management devices to qualify for the credit attributable to that equipment type at the Company's option.
5. The limitation on Interruptible Schedules shall not apply during critical capacity conditions on the Company's system; nor shall limitations apply at times the Company requires additional generating resources to maintain firm power sales commitments or supply emergency interchange service to another utility for its firm load obligations only. The Company may also exercise equipment interruptions at any time for purposes of testing and performance evaluation of its load management system.
6. If the Company determines that the load management devices have been tampered with, the Company may discontinue service under this rate schedule and bill for all prior load management credits received by the Customer, unless an earlier tampering date can be established, plus applicable investigative charges.
7. An alternative thermal storage heating system is available to Customers who (a) have resistance strip heating solely as their central electric heating system, (b) have adequate space and provide access for installation and maintenance of a thermal storage system, (c) have an electric water heater circuit which can be utilized for charging a thermal storage system, and (d) have normal residential water heating and central heating requirements. The Company shall not be required to provide a thermal storage system where the Company deems the installation to be economically unjustified.

For qualifying Customers, the Company will install, maintain, and operate a thermal storage system consisting of a thermal storage (water) tank, a pump, and a heat exchanging coil. The storage tank will be charged at the option and under the control of the Company. When this option is exercised, heating from this system will be available in place of the Customer's regular heating system. During periods that the storage tank is being charged, electric service to the Customer's regular water heater will be interrupted. An initial incentive payment of \$50.00 shall be made to a participating Customer.

8. Billing under this Rate Schedule will commence with the first complete billing period following installation of the load management devices. ~~During the first year of service, a Customer may change interruption schedules or the selection of electrical equipment installed with load management devices or transfer to another rate schedule by notifying the Company forty-five days in advance. After the first year of service, the Customer may change schedules or equipment or transfer to another rate schedule by notifying the Company ninety days in advance. However, in the event of any revision to the interruption schedules which may affect Customer, the Customer shall be allowed ninety days from the effective date of the revision to change schedules, or equipment, or transfer to another rate schedule.~~
9. If the Company determines that the effect of equipment interruptions ~~has been offset by the Customer's use of supplementary or alternative electrical equipment, or if access cannot be obtained by the Company to inspect, maintain, or remove load management devices,~~ service under this rate schedule may be discontinued and the Customer billed for all prior load management credits received over a period not in excess of six months.