State of Florida

Public Service Commission

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TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: September 13, 2007

TO: Office of Commission Clerk (Cole)

FROM: Division of Economic Regulation (Kummer, Sickel)
Office of the General Counsel (Fleming)

RE: Docket No. 070375-EG – Petition for approval of modifications to demand-side management plan by Tampa Electric Company.

AGENDA: 09/25/07 – Regular Agenda – PAA for Issues 1, 2, and 3 and Tariff Filing for Issue 4 – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Administrative

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\ECR\WP\070375.RCM.DOC

Case Background

On June 15, 2007, Tampa Electric Company (TECO) filed a petition requesting approval of modifications to the company's existing demand side management (DSM) plan, as well as authorization to recover the associated reasonable expenses through the Energy Conservation Cost Recovery Clause (ECCR). The current plan was approved by Order No. PSC-05-0181-PAA-EG, issued February 16, 2005, in Docket No. 040033-EG, In re: Petition for approval of numeric conservation goals by Tampa Electric Company.

TECO alleges that the most recent annual review of conservation programs gave clear indication that increased program participation and additional savings could be achieved in both the residential and commercial sectors. As a result, TECO proposes twelve new programs and nine program modifications.

This recommendation addresses the program modifications and additions, as described in the petition. The Commission has jurisdiction over this matter pursuant to sections 366.06, 366.80 through 366.82, Florida Statutes.

Discussion of Issues

Issue 1: Should the Commission approve Tampa Electric Company's (TECO) petition to modify nine of the company's DSM programs and add 12 new programs as described in its petition?

Recommendation: The Commission should approve all the modifications and programs, except the Commercial Demand Response program, as set forth in TECO's petition. The Commission should, however, grant limited authorization for TECO to implement the Commercial Demand Response program for a maximum period of four years. All the programs are each monitorable and cost-effective. TECO should be allowed to request recovery of reasonable costs associated with the approved modifications and new programs through the Energy Conservation Cost Recovery (ECCR) clause. TECO should provide updated cost-effectiveness analysis for the Commercial Demand Response program as part of its annual filings in the ECCR proceeding. If the Commercial Demand Response program is modified during the contract period, or at the close of the current contract, the program would also be subject to Commission approval. (Sickel)

Staff Analysis: In the recently completed annual evaluation of the approved demand side management (DSM) plan, TECO found indications that (1) certain DSM programs could be modified in such a manner as to increase the potential of customer participation, and (2) new DSM programs for residential and commercial sectors could be developed. The company states that recent cost evaluations, based on higher costs for both fuel and avoided units, result in cost-effective new and modified DSM programs.

TECO proposes modifications to four residential programs and five commercial programs. In addition, new residential programs include an educational pilot program directed at eighth grade students and their families, a new residential audit program, a low income program and a residential building envelope program. Eight new commercial programs are proposed. Attachment A provides a brief explanation of each new or modified program, along with tables illustrating the projected demand and energy savings that each plan will contribute toward TECO's numeric conservation goals. The programs have been evaluated using the following criteria:

- Whether the program advances the policy objectives of Rule 25-17.001, Florida Administrative Code, and Sections 366.80 through 366.85, Florida Statutes, also known as the "Florida Energy Efficiency and Conservation Act" (FEECA);
- Whether the program is directly monitorable and yields measurable results; and
- Whether the program is cost-effective

Each of the proposed programs is designed to meet the conservation goals prescribed by the Commission and the policy objectives of Rule 25-17.001, Florida Administrative Code, and FEECA. TECO's methodology for evaluating demand and energy savings continues as it has been under the currently approved goals. The modified and new programs are cost effective under the Rate Impact Measure (RIM), Total Resource Cost (TRC), and Participants tests. The actual expenditures will be reviewed within the annual Energy Conservation Cost Recovery docket.

Commercial Demand Response Program: The Commercial Demand Response program differs in several ways from any program previously approved for a regulated energy provider in Florida. Implementation of the program requires two contracts involving a third party demand response vendor. First, commercial customers having equipment that can be utilized in a demand reduction program are to be identified by the vendor. By agreement with the customer, the vendor will then install automated controls and provide load tracking software for the customer's use. The vendor also enters into a contract with TECO that specifies payment based on a specific demand reduction. In turn, the vendor makes ongoing payments directly to the customer, based on the contract between those two parties.

Staff is advised that the contract between TECO and the vendor has been finalized and that the contract has been submitted, with intent to request confidential treatment, for review by staff. TECO represents that the contract period extends four years from the date of signing. Other contract arrangements include payment by TECO to the vendor based on performance, that is in $ per kW of available demand curtailment that is contractually arranged. There is a penalty clause, so that if the vendor fails to achieve the projected demand savings, the penalty paid to TECO is 150% of the amount TECO would have paid for demand avoided. Vendor performance is further secured by letter of credit.

The participating customers can expect savings on their utility bills, as well as payments directly from the third party vendor. By implementing the proposed program, TECO will be able to reduce peak demand when needed, for both summer and winter seasons. TECO reports that similar programs are known to be successful in other states, and that some of the utility's customers have requested this type of program because of experience in other states.

TECO has provided projections of costs and benefits that are expected from the program. TECO represents that projections include the payment amounts as set forth in the contract. Staff notes that the projections go beyond the four year duration of the new contract, and reflect TECO's expectation that the program and participation will grow throughout the 2007-2014 period. The projections result in a benefit/cost ratio for the Total Resource Cost (TRC) test of 1.31, and a Rate Impact (RIM) value of 1.31.

TECO represents that the Demand Response program is an opportunity for cost-effective conservation that will be well received by customers. Based on the projections provided by TECO, the Demand Response Program offers an opportunity for demand savings greater than any other program offered. There are savings in energy consumption as well. TECO represents that no payment is made to the vendor prior to the savings that the program makes available. Should the vendor not deliver the promised savings, the penalty payments will be an offset to conservation costs for which recovery is sought.

The next regular review of conservation goals and programs for TECO would take place in 2009. The actual results of the program for more than four quarters will be available within the scope of that review. Staff recommends that TECO be authorized to implement the program as proposed, subject to a thorough review of costs, benefits, and conservation actually achieved when the goals are next set. During the interim period, reasonable costs associated with the Demand Response program are appropriate for cost recovery through the ECCR clause. TECO should provide updated cost-effectiveness analysis as part of the annual filings in the ECCR proceeding. Within the anticipated review in 2009, the Demand Response program would be subject to action by the Commission based on actual results. If the program is modified during the contract period, or at the close of the current contract, the program would also be subject to Commission approval.

Conclusion: The Commission should approve all the modifications and programs, except the Commercial Demand Response program, as set forth in TECO's petition. The Commission should, however, grant limited authorization for TECO to implement the Commercial Demand Response program for a maximum period of four years. All the programs are each monitorable and cost-effective. TECO should be allowed to request recovery of costs associated with the approved modifications and new programs through the Energy Conservation Cost Recovery (ECCR) clause. TECO should provide updated cost-effectiveness analysis for the Commercial Demand Response program as part of its annual filings in the ECCR proceeding. If the Commercial Demand Response program is modified during the contract period, or at the close of the current contract, the program would also be subject to Commission approval.

Issue 2: Should TECO be authorized to make the Prime Time load control program available to new occupants of a residence which has the necessary equipment previously installed?

Recommendation: No. The requested continuation of the Prime Time program has not been shown to be cost effective at the present time. If an updated analysis of a proposed modification to the program indicates that modification is cost-effective, TECO may petition to include the modified program in its conservation offerings. (Sickel)

Staff Analysis: The Prime Time program is a residential load control program that has been utilized since the early 1980's. The program had been cost-effective until the most recent Commission review of conservation goals in 2005. At that time, the Prime Time program was deemed to not be cost effective based on a benefit-cost ratio of 0.74 under the Rate Impact Measure (RIM) test. See Order No. PSC-05-0181-PAA-EG, issued February 16, 2005, in Docket No. 040033-EG, In re: Petition for approval of numeric conservation goals by Tampa Electric Company, which states in part:

> Because the Prime Time load management program is no longer cost effective, non-participating customers will continue to pay a subsidy to program participants if the program is allowed to continue. For this reason we find that TECO shall close the program to new participants, but allow current participants to continue on the program. Discontinuing the Prime Time program for new customers will allow attrition to occur more rapidly, resulting in less of a subsidy paid by non-participants.

TECO reports a net loss of 14,708 participants from February, 2005, through April, 2007. For that period, the projected loss had been less than 3,300 customers. The company had expected to maintain the demand reduction that has been associated with the Prime Time program through growth of the new Price Responsive Load Management program. The attenuation of the number of participants in Prime Time program has been greater than anticipated and TECO seeks to curtail the loss of Prime Time participants.

TECO does not offer a current cost-effectiveness analysis of the requested program continuation. In support of their request, the company states that the existing load-management equipment and its annual maintenance were deemed cost-effective at the time the equipment was installed in a residence. Based upon that history, TECO seeks to retain a residence in the program if active equipment exists at the residence, by a transfer of the program to a new occupant. The support offered for TECO's request does not address the finding in Order No. PSC-05-0181-PAA-EG quoted above, that non-participating customers are providing a subsidy to participants of the program.

Staff recommends that TECO only should be authorized to allow continued participation by current customers in the Prime Time program, but TECO should not be allowed to transfer the program to a new occupant. TECO should not to apply the demand and energy savings impacts of the prime Time program towards its Commission-authorized numeric conservation goals. Staff notes that customers desiring to participate in a load control program have access to the Price Responsive Load Management program, recently approved in Docket No. 070056-EI, In re: Petition for extension and permanent status of price responsive load management pilot program, by Tampa Electric Company.

Issue 3: Should the Commission approve TECO's request to modify its currently approved conservation goals?

Recommendation: If issues 1 and 2 are approved, then the Commission should approve TECO's request to modify its currently approved conservation goals. The proposed modifications and additions to the conservation programs will result in additional savings to both residential and commercial peak loads, as well as reduced energy consumption. (Sickel)

Staff Analysis: If the Commission approves the proposed modifications to existing programs, and the new programs proposed for addition, the change will result in greater reductions to peak demand for TECO's system. There will be a reduction to the energy requirements for the system as well. The proposed increased savings for residential programs and the proposed increased savings for commercial/industrial programs are shown in the respective tables in Attachment A. Since the savings for the currently approved programs were projected for the period 2005 through 2014, the same period is used for analysis in this docket. The projected results of the new programs over the period 2007-2014 are added to the actual conservation achieved for years 2005 and 2006. The tables in Attachment A show accumulated savings for the proposed programs. The table below provides a comparison of savings for the proposed programs, added to existing approved programs not changed, and compared to the current approved goals.

Revised Conservation Goals 2005-2014

	Summer Peak Demand (MW)	**Winter Peak Demand (MW)**	**Annual Energy Consumption (GWh)**
Residential Conservation			
Proposed Conservation Goal	21.2	29.6	55.4
Current Approved Goal	15.2	20.1	43.5
Commercial Conservation			
Proposed Conservation Goal	45.1	36.9	54.6
Current Approved Goal	15.3	8.2	41.5

If issues 1 and 2 are approved, staff recommends that the Commission also approve the proposed revision to the conservation goals set for TECO by the Commission.

Issue 4: Should the proposed modifications to the Tariff Sheets 3.150 and 3.200 be approved?

Recommendation: Yes. If Issue 1 is approved, the proposed tariff sheets implement the increased load management credits discussed in this recommendation. (Kummer)

Staff Analysis: The proposed tariff sheets reflect the increased credit associated with commercial programs involving stand-by generators and the load management rider. The programs are included in the discussion in Issue 1 and should be approved. The tariffs should be effective the date of the consummating order.

Issue 5: Should this docket be closed?

Recommendation: Yes. If Issue 1 is approved, the tariffs and programs should become effective on the date of the consummating order. If no timely protest is filed, this docket should be closed upon the issuance of a consummating order. (Fleming)

Staff Analysis: If Issue 1 is approved, the tariffs and programs should become effective on the date of the consummating order. If no timely protest is filed, this docket should be closed upon the issuance of a consummating order.

ATTACHMENT A

TAMPA ELECTRIC COMPANY / DAMAND SIDE MANAGEMENT PLAN

RESIDENTIAL DEMAND-SIDE MANAGEMENT PLANS

Residential Walk-Through Audit: The program is modified to include six fluorescent lamps to replace incandescent bulbs with similar lumens output. There is no charge to the customer.

Residential Phone-Assisted Audit: The customer will speak directly with a Tampa Electric representative to answer questions about their home and energy use. The representative inputs the information into the on-line audit form and then discusses the on-line audit results with the customer. The results and audit recommendations are provided to the customer by email or regular mail. There is no charge to the customer.

Residential Duct Repair: The customer payment is reduced to $50.

Residential New Construction: The modified program offers separate incentives for each measure incorporated into the construction of single family detached dwellings.

Duct closure: $50 incentive

Attic Insulation: $75 for R-30

HVAC: $100 for minimum SEER of 14

Windows: $350 incentive for energy efficient windows

Alternate Water Heating: $100 incentive for heat recovery unit or heat pump water heater

Certification: $85 for Energy Star HERS index ≤ 85

Residential Heating and Cooling: The program is modified to require a minimum SEER rating of 14 for new equipment; also to increase incentives to rebate $275.00 for heat pumps replacing strip heat, and to rebate $125.00 for heat pumps replacing heat pumps.

Residential Building Envelope Improvement: For ceiling insulation, provides incentives up to $200 depending on size of homes; adds incentive of $200 for insulation of exterior walls; adds incentive of $350 for energy efficient window replacement; adds incentive of $1 per square foot application of energy efficient window film.

Residential Low Income: New program provides items at no cost to customer: six fluorescent lamps; one water heater wrap; three faucet aerators; two showerheads; two weather stripping kits for window HVAC; wall plate thermometer; HVAC filters; weather stripping and caulking; ceiling insulation up to R-19.

Educational Energy Awareness: New program in partnership with service area schools provides supplemental energy efficiency information for eighth grade science classes. Program plan includes offering extra credit for students who participate in an on-line telephone audit of the student's home.

RESIDENTIAL DEMAND-SIDE MANAGEMENT PROGRAMS
NEW AND MODIFIED PROGRAMS

DSM PROGRAM	Summer Peak Demand		Winter Peak Demand		Annual Energy Consumption		Benefit / Cost Ratio (RIM)
	Savings (MW)	% of Goal	Savings (MW)	% of Goal	Savings (GWh)	% of Goal	
Walk-Through Audit	1.9	9.1%	2.6	8.7%	8.8	15.5%	N/A
Phone Assisted Audit	0.1	0.3%	0.1	0.3%	0.3	0.9%	N/A
Low Income	0.3	1.5%	1.2	4.0%	1.5	2.7%	1.20
Duct Repair	12.0	56.4%	10.5	35.7%	26.1	47.1%	1.67
New Construction	0.3	1.6%	0.3	0.9%	0.7	1.3%	1.02
Heating and Cooling	2.2	10.4%	8.4	28.6%	6.4	11.6%	1.22
PROJECTED TOTAL SAVINGS 2005-2014[1]	21.2	100%	29.6	100%	55.4	100%	

[1] Includes savings for the period 2005-2014 for currently approved programs not being modified.

COMMERCIAL / INDUSTRIAL DEMAND-SIDE MANAGEMENT PLANS

Commercial Duct Repair: New program provides an incentive of $200 for duct repair of any commercial or industrial customer.

Commercial Building Envelope: New program provides incentive up to $200 for window film, $0.05 per square foot for ceiling insulation, $0.20 for wall insulation.

Energy Efficient Motors: New program will provide up to $2.50 per horsepower for energy efficient motor upgrades.

Commercial Load Management: Modified to provide increased incentive of $2.50 for cyclic interruption.

Commercial Demand Response: New program provides monthly incentive to commercial / industrial participants based on kW reduction made available. TECO contracts with a demand response vendor who secures participants and operates program.

Commercial Cooling: Modified program increases incentive for direct expansion AC units, based on btu rating, to about $30/ton; adds new incentive for high efficiency package terminal AC units.

Commercial Chillers: New program will provide $100/ton for energy efficient chillers.

Commercial Lighting: Modified program will increase incentive for energy efficient lighting in conditioned spaces to $150/kW for conditioned or unconditioned spaces.

Commercial Lighting Occupancy Sensors: New program provides $75/kW of lighting controlled.

Commercial Standby Generators: Modified to increase incentive to $3.50 per kW.

Commercial Refrigeration: New program provides incentive of $135.00 per kW for installation of anti-condensate heat controls when refrigeration equipment is installed or retrofitted.

Commercial Water Heating: New program provides incentive of $60/ton for heat pump water heaters or heat recovery units.

Commercial Conservation Value: Modified program provides increased incentive amount of $250/avg. kW for demand reduction.

COMMERCIAL / INDUSTRIAL DEMAND-SIDE MANAGEMENT PROGRAMS

NEW AND MODIFIED PROGRAMS

DSM PROGRAM	Summer Peak Demand		Winter Peak Demand		Annual Energy Consumption		Benefit / Cost Ratio (RIM)
	Savings (MW)	% of Goal	Savings (MW)	% of Goal	Savings (GWh)	% of Goal	
Building Envelope							
Ceiling Insulation	0.1	0.3%	0.1	0.1%	0.3	0.5%	1.65
Wall Insulation	0.1	0.1%	0.1	0.2%	0.1	0.3%	1.62
Window Film	0.3	0.6%	N/A	0%	1.1	0.1%	1.61
Duct Repair	0.1	0.1%	0.0	0%	0.6	0.1%	1.37
Energy Efficient Motors	0.4	0.9%	0.4	1.1%	1.0	1.8%	1.83
Load Management - Cyclic	0.1	0.2%	0	0%	0	0%	3.24
Demand Response	25.0	55.4%	25.0	67.7%	1.9	3.4%	1.23
Commercial Cooling							
Direct Expansion	0.7	1.5%	0	0%	2.2	4.1%	1.25
Package Terminal Eqpt.	0.3	0.7%	0	0%	0.9	1.7%	1.23
Chillers	3.0	6.7%	0.9	2.4%	7.0	12.8%	1.29
Commercial Indoor Lighting							
Conditioned Space	5.0	11.1%	1.7	4.7%	25.3	46.3%	1.31
Unconditioned Space	1.2	2.71%	1.2	3.3%	7.3	13.5%	1.61
Occupancy Sensors	0.1	0.2%	0.1	0.2%	1.5	2.7%%	2.06
Refrigeration	0.1	0.1%	0.1	0.1%	0.5	1.0%	1.66
Water Heating	0.1	0.1%	0.1	0.1%	0.3	0.5%	1.73
Comm. Standby Generator	7.0	15.5%	6.4	17.4%	0.7	1.3%%	3.06
Conservation Value	0.6	1.4%	0.3	0.8%	3.0	5.4%	1.25
PROJECTED TOTAL SAVINGS 2005-2014[2]	45.1		36.9		54.6		

[2] Includes savings for the period 2005-2014 for currently approved programs not being modified.