

State of Florida



## Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD  
TALLAHASSEE, FLORIDA 32399-0850

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

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**DATE:** June 18, 2009

**TO:** Office of Commission Clerk (Cole)

**FROM:** Office of Strategic Analysis and Governmental Affairs (Ellis)  
Office of the General Counsel (Fleming)

**RE:** Docket No. 090228-EG – Petition for approval of a pilot small general service price responsive load management program, by Tampa Electric Company.

**AGENDA:** 06/30/09 – Regular Agenda – Tariff Filing – Interested Persons May Participate

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** Administrative

**CRITICAL DATES:** 5-Month suspension expires on November 15, 2009

**SPECIAL INSTRUCTIONS:** None

**FILE NAME AND LOCATION:** S:\PSC\SGA\WP\090228.RCM.DOC

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### Case Background

On April 23, 2009, Tampa Electric Company (TECO) filed a petition requesting approval of a pilot Small General Service Price Responsive Load Management Program (pilot program). In the pilot program, commercial customers would be provided a smart thermostat, load control relay, and a network communication module. Customers would then be charged with rates varying by time of use. The pilot program is meant to collect and evaluate data on customer acceptance, as well as energy and demand savings of this variety of load management program.

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The pilot program is similar to TECO's Residential Price Responsive Load Management Program.<sup>1</sup> The price period scheduling and rates would be identical, using a four-tier pricing structure.

The Commission has jurisdiction over this matter pursuant to Sections 366.06 and 366.80 through 366.82, Florida Statutes (F.S.).

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<sup>1</sup> Approved by Order No. PSC-07-0740-TRF-EG, issued September 17, 2007, in Docket 070056, In re: Petition for approval of extension and permanent status of price responsive load management program, by Tampa Electric Company.

Discussion of Issues

**Issue 1:** Should TECO’s pilot Small General Service Price Responsive Load Management program be approved?

**Recommendation:** Yes. The Commission should approve TECO’s Petition, and the tariffs needed to implement the proposed pilot program. Program costs should be capped at \$286,000 as part of TECO’s existing Conservation Research & Development Program. The program should be limited to 50 participants, and expire 18 months from the date of the Commission’s vote. TECO should also provide a report on its cost-effectiveness to staff upon completion of the program. (Ellis)

**Staff Analysis:** On April 23, 2009, TECO filed a petition requesting approval of a pilot Small General Service Price Responsive Load Management Program. The number of customers able to participate will be limited to 50, with an anticipated duration of approximately 18 months. Customers who choose to participate in the program will take service under a new tariff, GSVP-1, which is attached. The pilot program is similar to TECO’s Residential Price Responsive Load Management program.<sup>2</sup> The new GSVP-1 tariff will initially use the same rates and time elements for a four-tiered structure of pricing tiers that is used in the Residential Price Responsive Load Management program, provided below in Table 1. These rates would change annually and be adjusted through the Energy Conservation Cost Recovery (ECCR) clause proceedings.

**Table 1 - Price Period Scheduling and Pricing (as of May 12, 2009)**

Rate Period	Days*	Summer Schedule	Winter Schedule	Energy Conservation Charge (¢/kWh)
<b>P-1 (Low Cost)</b>	Mon – Fri	11 PM – 6 AM	11 PM – 5 AM	-1.644
	Sat – Sun	11 PM – 6 AM		
<b>P-2 (Moderate Cost)</b>	Mon – Fri	6 AM – 1 PM 6 PM – 11 PM	5 AM – 6 AM 10 AM – 11 PM	-1.130
	Sat – Sun	6 AM – 11 PM		
<b>P-3 (High Cost)</b>	Mon – Fri	1 PM – 6 PM	6 AM – 10 AM	7.245
	Sat – Sun	None		
<b>P-4 (Critical Cost)</b>		As Determined By TECO (134 Hours Max Annually)		41.321

\* Holidays are considered equivalent to Sat - Sun.

The tariff will provide a multi-tiered rate structure that is designed to work as a price signal and alert participating customers to reduce load and energy consumption during high-cost periods. Customers will have a smart thermostat, load control relay, and a network communication module installed at no charge. The customer will then be able to use these devices to control a variety of equipment, including space heating, air conditioning, water heating, and other commercial equipment. The customer can select to have their equipment automatically turned on or off depending upon price signals, or manually adjust it depending

<sup>2</sup> Approved by Order No. PSC-07-0740-TRF-EG, issued September 17, 2007, in Docket 070056, In re: Petition for approval of extension and permanent status of price responsive load management program, by Tampa Electric Company.

upon business conditions. Under the pilot program, price signals will consist of electronic notification of four price periods, with each period having a different energy conservation charge. All other components of the customer's electrical charges, such as base rates or fuel, are not affected by price period. Three of these pricing periods will have their schedule set in the tariff, each with increasing cost. The fourth, and most expensive, will have its timing determined by TECO and function as a load management resource during times of system need without advance notification to the customer. The fourth pricing period is also restricted to no more than 134 hours annually.

In the case of typical load control programs, the customer receives a monthly credit in exchange for allowing the utility the option to automatically interrupt service. Under the proposed pilot program, customers will be able to decide when and how to operate equipment in their business based on price. With an understanding that energy costs increase during periods of higher demand, customers can modify energy use to shift consumption from periods of higher demand and higher prices, to periods of lower demand and reduced prices.

The pilot is meant to evaluate what type of customer would benefit, and the amount of benefit provided, by this variety of load management program. At the end of the pilot program, TECO will be able to complete an evaluation of the program's cost-effectiveness and impact, and may seek to make the program permanent.

TECO's expected cost for the 18-month pilot program is estimated at \$286,000, based upon previous experience with the Residential Price Responsive Load Management Program. TECO's existing Conservation Research and Development Program has a five-year cap of \$500,000 and was previously approved by the Commission.<sup>3</sup> Since 2004, approximately \$214,750 has been expended from the Conservation Research and Development Program. The pilot program's expenditures of \$286,000 would be spread over 18 months, so the five year limit is not expected to be exceeded. The itemized cost for the pilot program is detailed below in Table 2.

<b>Table 2 - Pilot Program Cost by Category</b>	
Payroll	\$67,677
Marketing	\$750
Incentives	\$2,500
Vehicle	\$1,500
Installation & Maintenance	\$27,560
Equipment	\$36,013
Analysis & Reporting (University of South Florida)	\$150,000
<b>Total</b>	<b>\$286,000</b>

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<sup>3</sup> Approved by Order No. Order No. PSC-05-0181-AA-EG, issued February 16, 2005, in Docket No. 040033-EG, In re: Petition for approval of numeric conservation goals by Tampa Electric Company.

**Conclusion**

Staff believes that the pilot Small General Service Price Responsive Load Management Program may provide an opportunity to expand TECO's residential program to its commercial customers. The pilot program will allow TECO to collect and evaluate data on customer acceptance, as well as energy and demand savings. Therefore, staff recommends that the Commission approve TECO's Petition for a pilot Small General Service Price Responsive Load Management Program, and the tariffs needed to implement the proposed pilot program. Program costs should be capped at \$286,000 as part of TECO's existing Conservation Research & Development Program. The program should be limited to 50 participants, and expire 18 months from the Commission's Order. TECO should also provide a report on its cost-effectiveness to staff upon completion of the program.

**Issue 2**: Should this docket be closed?

**Recommendation**: Yes. If Issue 1 is approved, the tariffs should become effective the date of the Commission's vote. If a protest is filed within 21 days of the issuance of the order, the tariffs should remain in effect with any increase held subject to refund pending resolution of the protest. If no timely protest is filed, the docket should be closed upon the issuance of a consummating order. (Fleming)

**Staff Analysis**: If Issue 1 is approved, the tariffs should become effective the date of the Commission's vote. If a protest is filed within 21 days of the issuance of the order, the tariffs should remain in effect with any increase held subject to refund pending resolution of the protest. If no timely protest is filed, the docket should be closed upon the issuance of a consummating order.



ORIGINAL SHEET NO. 6.580

**GENERAL SERVICE VARIABLE PRICING PILOT**

**SCHEDULE:** GSPV-1

**RATE CODE:** 203

**AVAILABLE:** Available to customers eligible for Rate Schedule GS or GST whose premises meets certain equipment requirements described below.

**APPLICABLE:** Resale is not permitted. Unmetered service is not permitted.

**EQUIPMENT REQUIREMENTS:**

1. Touch-tone phone service. (Land line)
2. Service entrance panel or premises power panel rated at 200 amps or less.
3. Central heating and air conditioning that is compatible with Company installed energy management equipment. Premises must have central heating and cooling systems to be eligible for participation. Window units are not eligible.
4. Electric water heaters, decorative pumps, lighting controls or other devices controlled by equipment provided through the program must be no larger than 30 amps and 240 volts each and compatible with Company installed energy management equipment.
5. Electric wiring must be conducive to power line carrier messaging.
6. Premises must be located in an area capable of meeting a paging strength standard.
7. Existing meter configuration must be capable of incorporating the energy management equipment.

**INSTALLATION AND REMOVAL:** Energy Management equipment will be installed at the Customer's residence upon the Customer's initial request for service under Rate Schedule GSPV-1 at no charge to the Customer. If this same Customer requests service at the same residence under Rate Schedule GSPV-1 after returning to the Rate Schedule GS or GST, the Customer will be billed \$234.00 for installation costs and, thereafter, billed under Rate Schedule GSPV-1.

If a Customer has taken service under Rate Schedule GSPV-1 two separate times at the same residence then request to be moved back to Rate Schedule GS or GST, the Customer will be billed \$174.00 for removal costs and thereafter billed under Rate Schedule GS or GST.

**CHARACTER OF SERVICE:** Available for single-phase service from local distribution lines of the Company's system at nominal secondary voltage of 120/240 volts. Service shall be metered through one metering device capable of measuring electrical energy consumption during the various times each energy demand charge is in effect.



ORIGINAL SHEET NO. 6.585

Continued from Sheet No. 6.580

**MONTHLY RATES:**

Customer Facilities Charge: \$10.50  
 Energy and Demand Charges: 4.637 ¢ per KWH (for all pricing periods)

**MINIMUM CHARGE:** The customer facilities charge.

**FUEL CHARGE:** See Sheet Nos. 6.020 and 6.021.

**ENERGY CONSERVATION CHARGE:** See Sheet Nos. 6.020 and 6.021.

**CAPACITY CHARGE:** See Sheet Nos. 6.020 and 6.021.

**ENVIRONMENTAL COST RECOVERY CHARGE:** See Sheet Nos. 6.020 and 6.021.

**FLORIDA GROSS RECEIPTS TAX:** See Sheet No. 6.021.

**FRANCHISE FEE CHARGE:** See Sheet No. 6.021.

**PAYMENT OF BILLS:** See Sheet No. 6.022.

**DETERMINATION OF PRICING PERIODS:** Pricing periods are established by season for weekdays and weekends. The pricing periods for price levels P<sub>1</sub> (Low Cost Hours), P<sub>2</sub> (Moderate Cost Hours) and P<sub>3</sub> (High Cost Hours) are as follows:

<u>May through October</u>	<u>P<sub>1</sub></u>	<u>P<sub>2</sub></u>	<u>P<sub>3</sub></u>
Weekdays	11 P.M. to 6 A.M.	6 A.M. to 1 P.M. 6 P.M. to 11 P.M.	1 P.M. to 6 P.M.
Weekends	11 P.M. to 6 A.M.	6 A.M. to 11 P.M.	-----
<u>November through April</u>	<u>P<sub>1</sub></u>	<u>P<sub>2</sub></u>	<u>P<sub>3</sub></u>
Weekdays	11 P.M. to 5 A.M.	5 A.M. to 6 A.M. 10 A.M. to 11 P.M.	6 A.M. to 10 A.M.
Weekends	11 P.M. to 6 A.M.	6 A.M. to 11 P.M.	-----

The pricing periods for price level P<sub>4</sub> (Critical Cost Hours) shall be determined at the sole





ORIGINAL SHEET NO. 6.590

Continued from Sheet No. 6.585

The pricing period for the following observed holidays will be the same as the weekend hour price levels for the month in which the holiday occurs: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

**EMERGENCY RELAY POWER SUPPLY CHARGE:** The monthly charge for emergency relay power supply service shall be 0.145¢ per KWH of billing energy. This charge is in addition to the compensation the customer must make to the Company as contribution-in-aid of construction.

**TERM OF SERVICE:** The initial term of service under this rate shall be for a period of one year to be continued thereafter unless terminated by the customer with thirty days written notice.



ORIGINAL SHEET NO. 7.790

**TARIFF AGREEMENT FOR THE GENERAL SERVICE VARIABLE PRICING  
LOAD MANAGEMENT PILOT**

This agreement is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, by and between \_\_\_\_\_, (hereinafter called the Customer) and Tampa Electric Company, a corporation organized in and existing under the laws of the State of Florida, (hereinafter called the Company).

**WITNESSETH:**

That for and in consideration of the mutual covenants and agreements expressed herein, the Company and the Customer agree as follows:

1. The Customer chooses to take service pursuant to Tampa Electric Company's General Service Variable Pricing Load Management Pilot which has been approved by The Florida Public Service Commission. This program includes service and under the Company's Rate Schedule GSVP-1, on file with and approved by the Florida Public Service Commission.
2. Tampa Electric Company will provide the necessary energy management equipments for use on the Customer's premises for the duration of the contract. Customer will be responsible for any willful damages to Company-owned energy management equipment installed at the Customer's premises.
3. The Customer will provide reasonable access for installing, inspecting, testing, and/or removing Company-owned equipment. Fees, where applicable for installation and removal of Company-owned equipment, are described in Rate Schedule GSVP-1 and are incorporated as part of this agreement.
4. The Customer's electrical equipment and appliances are in good working condition as determined at the sole discretion of Tampa Electric Company. Tampa Electric will not be responsible for the repair, maintenance, or replacement of the Customer's electrical equipment or appliances.
5. Billing under Rate Schedule GSVP-1 will commence after the installation, inspections, and testing of the equipment, and will continue for a period of one year and thereafter until terminated by the Customer with 30 days notice. Rate Schedule GSVP-1 is incorporated as a part of this agreement. Customer hereby acknowledges having received and reviewed the rates, terms, and conditions contained in Rate Schedule GSVP-1.



ORIGINAL SHEET NO. 7.795

Continued from Sheet No. 7.790

Customer understands and acknowledges that this rate schedule as well as the rates, terms, and conditions therein are subject to periodic change by the Florida Public Service Commission and such changes will be applicable to the Customer.

6. This agreement supersedes all previous agreements and representations, either written or oral, heretofore made between the Company and the Customer with respect to matters herein contained. Any modification(s) to this Agreement must be approved, in writing, by the Company and the Customer.
7. The programmable thermostat will be removed by the Company if the Customer returns to service under Rate Schedule GS or GST. The Customer is responsible for providing a replacement thermostat.

**IN WITNESS THEREOF**, the Customer and the Company have caused this Agreement to be executed by their duly authorized representatives as of the day and year first above written.

Customer: _____	Tampa Electric Company Representative
By/Title: _____	By/Title: _____
Signature: _____	Signature: _____
Street Address: _____	
City, State, Zip: _____	
Property Owner: _____	
By/Title: _____	
Signature: _____	
Date: _____	