## Diamond Williams

100459-EI

From:

Beth Keating [BKeating@gunster.com]

Sent:

Wednesday, January 26, 2011 10:08 AM

To:

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Cc:

Schef Wright; cecilia.bradley@myfloridalegal.com; CHRISTENSEN.PATTY; Katherine Fleming;

Elisabeth Draper; Geoffroy, Tom

Subject:

Docket No. 100459-EI

Attachments: 20110126100926228.pdf

Attached for electronic filing, please find Florida Public Utilities Company's supplemental responses to staff's second set of data requests (3 and 5). Please do not he sitate to contact me if you have any questions.

## Beth Keating

## Gunster, Yoakley & Stewart, P.A.

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a. Person responsible for this electronic filing:

#### Beth Keating

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b. Docket No. 100459-El - Petition for authority to implement a demonstration project consisting of proposed time-of-use and interruptible rate schedules and corresponding fuel rates in the Northwest Division on an experimental basis and request for expedited treatment, by Florida Public Utilities Company.

- c. On behalf of: Florida Public Utilities Company
- d. There are a total of 4 pages.
- e. Description: FPUC's Supplemental Responses to Staff's Data Requests

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Writer's E-Mail Address: bkeating@gunster.com

January 26, 2011

#### BY ELECTRONIC FILING

Ms. Ann Cole Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Re: Docket No. 100459-EI - Petition for authority to implement a demonstration project consisting of proposed time-of-use and interruptible rate schedules and corresponding fuel rates in the Northwest Division on an experimental basis and request for expedited treatment, by Florida Public Utilities Company.

Dear Ms. Cole:

Attached for electronic filing in the referenced Docket, please find Florida Public Utilities Company's supplemental responses to Staff's second set of data requests (Nos. 3 and 5) in this proceeding.

Thank you for your assistance with this filing. If you have any questions whatsoever, please do not hesitate to let me know.

Sincerely,

Beth Keating

Gunster, Yoakley & Stewart, P.A. 215 South Monroe St., Suite 618

Tallahassee, FL 32301

(850) 521-1706

**MEK** 

cc: Robert Scheffel Wright, Esquire (via email)
Patricia Christensen, Esquire (via email)

Cecilia Bradley, Esquire (via email)

# FLORIDA PUBLIC UTILITIES COMPANY RESPONSES TO STAFF'S SECOND DATA REQUEST DOCKET NO. 100459-EI

3. Please refer to Table 3 and explain how the price premiums and discounts were calculated.

Company Response: The price premium and discount values were selected based on several factors. First, given the share of each class's current load in the on-peak and off-peak periods, each premium-discount pair was selected to yield bills that achieved the targeted savings for each class, based on FPU's target participation levels.

Second, premium and discount values were selected to fulfill, to some degree, the objectives listed on Page 7 of the report: 1) advance TOU prices which approximately match relevant TOU prices in the region; 2) realize net gains (reduced bills) for TOU participants over the course of the pilot program, where overall participation is sizable though, as a practical matter, necessarily constrained; 3) provide sufficient price incentives, where the end result is measurable load relief to the benefit of all customers of the Northwest Division; 4) allocate fairly, to retail customers of the Northwest Division, cost relief resulting from the renegotiated wholesale prices for generation services; 5) acquire real-world experience, as contained in observed load data, in order to better understand the load response behavior of customers under TOU, where prices are differentiated by timeframe; and 6) build market experience and cement in long-term load response within the customer base of the Northwest Division.

Third, the Company determined, based on these objectives, that an All-Year TOU rate was more appropriate than a seasonal TOU rate, given the local competing TOU rates and the fact that the contract amendment with Gulf provided savings in each and every month of the amended contract. As such, the Company developed and provided CA Energy Consulting the rates shown in Table 3 so that they could be input into the CA Energy Consulting model to ensure that all the primary parameters of the TOU service were achieved (approximately 50% of the annual contract savings allocated to TOU rates, sufficient on- and off-peak price differentials to elicit a load reduction response, etc.).

Applying the foregoing process and methodology enabled FPU to develop TOU pilot rates that are cost-based. The rates filed make use of both embedded and marginal costs. The rate consists of two main components:

- 1) the customer's standard tariff, which is based on the embedded cost to serve a particular class, and is approved by the Florida Public Service Commission; plus the applicable terms of the Rate Adjustment Rider; and,
- 2) the TOU premium and discount in the RAR that adjusts prices to better reflect marginal costs. As the report demonstrates, the TOU premium and discount for each rate are based on a) the target level of revenue recovery during the first year of the pilot; and b) the time pattern of marginal costs faced by FPU. The price

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*level* of the TOU options takes account of the cost reduction associated with the reduction in contractual annual peak demand. The price *pattern* of the TOU options takes into account the time pattern of marginal costs, which is variable with respect to season and time of day.

Typically, a service provider will have some degree of pricing discretion in configuring an embedded cost-based rate to conform better to marginal costs. At one extreme, two-part real-time pricing charges the embedded cost-based tariff prices on the customer's baseline load (or contract energy) while departures of actual loads from the baseline/contract are priced based on hourly marginal costs. For simpler tariff designs such as a TOU option, it is sufficient that prices better reflect marginal cost than do the prices of the standard tariff. As a result, load responses to TOU prices obtain net benefits for TOU participants in the form of increased customer value, and for consumers as a whole because total costs decline. The FPU design for its TOU pilots does precisely this. FPU's TOU pilot rates recognize marginal cost and move prices in the direction of economic costs (marginal costs), while adopting a pricing pattern suitable to its regional electricity market -i.e., TOU prices in the region.

5. Please provide a discussion of the information shown in Tables 9 – 12. Please state whether the model searches for the target level of pilot participation, e.g., 940 for RS class, that provides the desired revenue reduction. If not, please explain or describe how FPUC determined the target level of participation for each rate class.

Company Response: Tables 9-12 summarize the result of the impact evaluation of FPUC's All-Year TOU design, using the price premium and discount found just under the title of each table. Table 13 combines the results of the preceding four tables and presents results combined across rate classes.

**Table Format.** Each table is identical in format. The impacts are segmented into load-related impacts in the top of the table and benefit impacts in the bottom. Each table has three columnar panels. The left-hand panel reports the results of CA Energy Consulting's simulation and choice model analyses. The middle panel scales these results to the target participation level selected by FPU. The right-hand panel reports results scaled to the targeted revenue reduction. The target cells are bolded in each of these last two panels.

Key Results. Table 13 shows that the All-Year TOU design, under the prices selected by FPU, is expected to yield load impacts about 124 kW of additional peak demand reduction and modest changes in total consumption, as a percentage of system totals: an increase overall of 0.18%, peak decreases of 0.15% in summer and 0.17% in winter, and off-peak increases of 0.30% and 0.28% in these seasons, respectively. Results by rate class appear in Tables 9-12. It is important to note that significant load reduction has already occurred in the Northwest Division, resulting from the price response to increased purchased power rates

<sup>&</sup>lt;sup>1</sup> Net social benefits, and its components customer net benefits and utility net revenues are computed based on the conventional definition of these concepts.

beginning in 2008. The Peak Capacity Demand Quantity was established in 2007, when low purchased power prices were in place. The actual Peak Season MW loads for 2008, 2009 and 2010 are lower than the 2007 peak by a minimum of 6 MW each year.

As also shown in Table 13, the economic impacts include a net revenue reduction of about \$244,800. Offsetting utility revenue reductions are customer net benefit increases of about \$276,300. The change in net social benefits<sup>1</sup>, the sum of utility net revenue change -i.e., change in revenues minus the change in costs - and customer net benefit change, is about \$31,400.

As stated above in response to Question 3, the Company provided CA Energy Consulting with the proposed TOU rates. They ran their model, utilizing these rates, to gauge whether the results were reasonable, compared to the Company-developed spreadsheet.

**Target Participation.** The Company determined that it would use the results of its model, at the lower participation levels, for the first year of the experimental program. The spreadsheet provided to Staff clearly shows the calculations which approximately result in the target annual savings to participants.

The model developed and used by CA Energy Consulting searches for the target level of pilot participation, with the results shown in the left-hand panel of each table. However, because of the differences in degree of analytical detail between the CA Energy Consulting model and the Company model, the target participation level results are not the same. Panel 2 of each Table shows the projected savings that the CA Energy Consulting model calculated utilizing the Company-provided participation levels. Panel 3 presents results targeted to revenue level as opposed to customer numbers. Again, the results in Panel 2 were used to gauge the reasonableness of the Company model.

<sup>&</sup>lt;sup>1</sup> Net social benefits, and its components customer net benefits and utility net revenues are computed based on the conventional definition of these concepts.