

ORIGINAL

1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2 PREPARED REBUTTAL TESTIMONY

3 OF

4 MARK D. WARD

5
6 Q. Please state your name, address, occupation and employer.

7
8 A. My name is Mark D. Ward. My business address is 702
9 North Franklin Street, Tampa, Florida 33602. I am
10 employed by Tampa Electric Company ("Tampa Electric" or
11 "company") as Manager, Resource Planning.

12
13 Q. Are you the same Mark D. Ward who filed pre-filed
14 testimony in this proceeding?

15
16 A. Yes, I am.

17
18 Q. What is the purpose of your rebuttal testimony?

19
20 A. The purpose of my rebuttal testimony is to address the
21 points advanced by FIPUG witness Kent D. Taylor with
22 respect to the Hardee Power Partners purchased power
23 agreement ("HPP agreement").

24
25 Q. Have you prepared an exhibit to support your testimony?

DOCUMENT NUMBER-DATE

13386 NOV-1 99

FPSC-RECORDS/REPORTING

1 A. Yes I have. Exhibit No. ____ (MDW-2) was prepared under
2 my direction and supervision and consists of one
3 document.

4
5 Q. Is the HPP agreement a prudent and cost effective
6 planning option?

7
8 A. Yes.

9
10 Q. How does Tampa Electric justify the prudence of the
11 purchase of power under the HPP agreement?

12
13 A. First, this capacity is needed to provide appropriate
14 planning and generating reserve margins - particularly in
15 the initial years of the agreement. Tampa Electric has
16 experienced sustained economic expansion within its
17 service territory resulting in higher peak demands and
18 energy requirements. This is particularly evident in
19 recent summers as the company has experienced reduced
20 planning reserves. To address this, the company has
21 decided to advance its supply-side resource additions.
22 As explained in Tampa Electric witness Brown's pre-filed
23 direct testimony, there is a tight market for power not
24 only in the Southeast but in several other regions of the
25 country as well. This tight market raises concerns about

1 the availability and price of purchased power. The
2 addition of the cost-based HPP agreement provides Tampa
3 Electric's customers protection against purchased power
4 price volatility while improving the planning reserves
5 for Tampa Electric and peninsular Florida.

6
7 Secondly, the current availability of permitted
8 generating sites and combustion turbines ("CT") is
9 limited. For example, the current delivery lead time for
10 a General Electric 7FA CT is four years and growing,
11 however, a 7EA CT which is the chosen technology for the
12 Hardee Power Station site ("Hardee" or "Hardee site") has
13 a delivery lead time of two years if purchased from the
14 manufacturer. As the result of a unique opportunity HPP,
15 through the secondary market, obtained the right to
16 acquire the only 7EA machine available in the United
17 States for immediate delivery. This unit is dual fuel
18 capable and similar to the three existing 7EA CTs
19 currently operating at the Hardee site.

20
21 Thirdly, like the charges to the existing assets at the
22 Hardee site, the capacity and energy charges for the
23 fourth CT are cost-based and FERC-accepted. On October
24 15, 1999 FERC accepted HPP's petition for cost-based
25 rates pertinent to Amendment 4 of the existing purchased

1 power agreement with Tampa Electric as included in Mr.
2 Brown's rebuttal testimony exhibit.

3
4 Fourthly, a power sale agreement between Seminole
5 Electric Cooperative ("SEC") and Tampa Electric for the
6 new HPP CT provides benefits for the company's customers.
7 Whenever Tampa Electric is not utilizing the CT, SEC has
8 contracted through 2012 for the rights for a back-up call
9 option from this unit. The SEC "back-up call option" is
10 non-firm but pays Tampa Electric a daily capacity charge
11 and energy charge whenever SEC exercises its call. These
12 charges are the same as those paid by Tampa Electric to
13 HPP, further supporting the competitiveness of the
14 pricing for the HPP agreement. All revenues from sales
15 to SEC will be credited to the company's retail
16 customers.

17
18 Finally, all existing 7EA CTs at the Hardee site have
19 been and are expected to continue to be very reliable
20 sources of capacity and energy to satisfy Tampa
21 Electric's needs.

22
23 Q. How did Tampa Electric determine the cost effectiveness
24 of the HPP agreement?

1 **A.** As described in the pre-filed and rebuttal testimony of
2 Mr. Brown, Tampa Electric exercised its option
3 acknowledged in Commission Order No. 22335 to pursue
4 Phase II of the existing purchased power agreement with
5 HPP for firm capacity and energy. Through Tampa
6 Electric's integrated planning process, the company
7 determined that the HPP agreement is the most cost
8 effective alternative based on a present worth revenue
9 requirement analysis comparing it to other alternatives.
10

11 **Q.** Briefly describe the company's integrated resource
12 planning process.
13

14 **A.** Tampa Electric's resource planning process is one in
15 which combinations of demand-side and supply-side
16 resources are evaluated on a fair and consistent basis to
17 satisfy future capacity and energy requirements in a cost
18 effective and reliable manner, while considering the
19 interests of the company's customers. The supply-side
20 resources that the planning process considers include a
21 variety of generating units based on technology and
22 available firm purchased power alternatives. Tampa
23 Electric's integrated resource planning methodology was
24 used in Docket No. 930551-EG, "Adoption of Numeric
25 Conservation Goals and Consideration of National Energy

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Policy Act Standards.”

Q. Please describe the analysis Tampa Electric prepared in evaluating the cost effectiveness of the HPP agreement.

A. The analysis, which was performed under my direction and supervision, considered the two responses to the solicited bid and a base case plan analysis that includes a three-year firm purchased power agreement with capacity and energy priced below market conditions. The two responses to the solicited bid were from Florida Power and Light and Florida Power Corporation and were described in Mr. Brown’s rebuttal testimony. Document 1 of my exhibit shows the incremental present worth revenue requirements of the two responses and the HPP purchase agreement compared to the base case.

The present worth revenue requirements for each case included projected capacity and energy payments for firm purchased power agreements, capital and O&M costs for generation expansion and net recoverable fuel and purchased power expenses. The results of the incremental present worth revenue requirements show that the HPP agreement is the most cost-effective option. The HPP agreement is projected to be \$3.2 million less than the

1 base case option that includes a three-year purchase and
2 is \$8.5 million less than the next lowest cost purchased
3 power option. The HPP agreement was chosen as the
4 optimum alternative based on its overall cost
5 effectiveness and since it supports Tampa Electric's
6 short and long term planning requirements.

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8 Q. Did Tampa Electric evaluate an option of building the 7EA
9 CT at its Polk site?

10
11 A. Yes.

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13 Q. Please explain the evaluation of the option to build the
14 7EA CT at its Polk site.

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16 A. The option of building the 7EA CT at the company's Polk
17 site would incur higher costs than costs estimated for
18 HPP constructing the unit at the Hardee site. In
19 addition to lower costs, the Hardee site offered other
20 benefits that were not available at the Polk site. For
21 example, the Hardee site offered an existing
22 infrastructure that includes personnel experienced with
23 operating 7EA technology, an existing GSU transformer,
24 inventory of 7EA spare parts, natural gas pipeline
25 interconnections, and transmission switchyard

1 interconnections. This infrastructure, which currently
2 does not exist at the Polk site, would result in
3 additional costs to the company to support 7EA CT
4 technology. Since the HPP agreement is a cost-based
5 transaction, it became evident that building at the Polk
6 site would be a less cost-effective alternative.

7
8 The other benefit of constructing the 7EA CT at the
9 Hardee site is the economic advantages gained through the
10 back-up power sale agreement between SEC and Tampa
11 Electric. With Tampa Electric and SEC sharing the Hardee
12 site facilities, this agreement could only be contracted
13 from assets at the Hardee site which will help reduce
14 overall costs for Tampa Electric's customers.

15
16 **Q.** Did Tampa Electric consider any other factors prior to
17 entering into the HPP agreement?

18
19 **A.** Yes. The company considered the relative size of the
20 purchase from HPP and determined it fit well with the
21 company's strategy of balancing generating resources with
22 firm power purchases over terms of various lengths. This
23 size purchase represents an appropriate commitment for
24 the term of the purchase. The commitment for purchasing
25 75 MWs under the HPP agreement increases the company's

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long-term purchased capacity from 297 to 369 MWs which represents approximately 10 percent of Tampa Electric's year 2000 total summer capacity.

Q. Please summarize your rebuttal testimony.

A. Tampa Electric, through its integrated resource planning process, identified the need to add resources both in its short- and long-term planning periods. Acting on the need, Tampa Electric sought input from several supply-side alternatives. The most cost effective and prudent alternative was to exercise an option contemplated in the company's original agreement with HPP. This alternative provides \$7.6 million dollars in cumulative present worth revenue requirements savings through 2002 and \$3.2 million dollars in cumulative present worth savings through 2012.

Q. Does this conclude your testimony?

A. Yes, it does.

Cost Effectiveness Analysis

Resource Alternatives	
Base Case	3 year purchase power, (Summer 2000-Winter 2003)
Florida Power Corporation	Summer 2000-2012
Florida Power and Light	Summer 2000-2012
Hardee Power Station Purchase Power Agreement	Summer 2000-2012

Cumulative Present Worth Revenue Requirements (99\$000)

Resource Alternatives	2002	2012
Base Case	-	-
Florida Power Corporation	(7,270)	6,496
Florida Power and Light	(3,816)	5,387
Hardee Power Station Purchase Power Agreement	(7,618)	(3,159)

Notes:

- 1) All costs/savings are incremental to the base case.
- 2) Negative values are savings. Positive values are costs.