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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
REBUTTAL TESTIMONY OF CHRIS J. KLAUSNER
ON BEHALF OF
FLORIDA MUNICIPAL POWER AGENCY
JEA
REEDY CREEK IMPROVEMENT DISTRICT
AND
CITY OF TALLAHASSEE
DOCKET NO. 060635
NOVEMBER 21, 2006

Q. Please state your name and business address.

A. My name is Chris J. Klausner. My business mailing address is 11401 Lamar Avenue, Overland Park, Kansas 66211.

Q. By whom are you employed and in what capacity?

A. I am employed by Black & Veatch Corporation. My current position is Senior Consultant/Project Manager.

Q. Have you previously submitted testimony in this proceeding?

A. Yes.

Q. Have you reviewed the testimony of Stephen A. Smith that was filed in this docket on November 2, 2006?

A. Yes, I have.

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1 **Q. What is the purpose of your rebuttal testimony?**

2 A. The purpose of my testimony is to rebut Dr. Smith's suggestion that the
3 Participants used coal plant construction cost estimates that pre-dated Hurricane
4 Katrina when comparing the proposed coal plant to post-Katrina costs of
5 available alternatives. I also will respond to Mr. Smith's suggestion that the
6 costs of coal-fired power plants are increasing by pointing out that the same
7 market factors that affect pulverized coal units also impact other available
8 alternatives.

9
10 **Q. On page 3 of Dr. Smith's testimony, Dr. Smith says the "Applicants appear
11 to be using out-dated coal plant construction costs that pre-date Hurricane
12 Katrina when comparing the proposed coal plant to post-Katrina costs of
13 available alternatives." Is this true?**

14 A. No. The capital cost estimates for both the proposed plant and the available
15 alternatives were developed in the first quarter of 2006, which was after
16 Hurricane Katrina.

17
18 **Q. On page 3 of his testimony, Mr. Smith also suggests that the costs of coal-
19 fired power plants is increasing. Have there been any market changes that
20 would impact the capital cost estimates used for the available alternatives?**

21 A. Yes. Certain market impacts on the costs of major equipment, commodities, and
22 labor have occurred that would increase the capital cost estimates for the
23 available alternatives.

24

1 **Q. Are you familiar with the updated capital cost estimate for TEC discussed**
2 **in the rebuttal testimony of Paul Hoornaert?**

3 A. Yes. I have reviewed the updated capital cost estimate for TEC.

4
5 **Q. By how much did the capital cost estimate increase for TEC?**

6 A. As stated in Mr. Hoornaert's rebuttal testimony, the increase is approximately
7 19 percent.

8
9 **Q. By how much do you estimate the capital costs for the coal-fired**
10 **alternatives presented in the TEC Need for Power have increased?**

11 A. Based on my independent analysis, I estimate that the costs of the coal-fired
12 alternatives presented in the Need for Power Application have increased by
13 approximately 20 percent. This is because market influences that have led to the
14 updated capital cost estimate for TEC, a supercritical pulverized coal unit, are
15 similar to those that would be expected to impact the coal-fired alternatives in
16 the TEC Need for Power Application since these alternatives utilize relatively
17 the same proportions of commodities such as steel and concrete, construction
18 labor, and pollution control equipment and other equipment unique to coal fired
19 units such as chimneys.

20
21 **Q. Would the estimated change in the capital cost estimates for coal fired**
22 **generation be the same as for natural gas fired generation?**

23 A. No. Natural gas fired generation would be subject to some degree of capital cost
24 increases associated with major equipment and labor, similar to the coal fired
25 alternatives. However, the impact on the capital cost estimates for coal fired

1 alternatives would likely be more pronounced than for natural gas fired
2 generation. The estimated percentage increase in the capital cost of natural gas
3 fired generation alternatives from that in the Need for Power Application is
4 approximately 12 percent. The lower percentage increase in the capital cost for
5 natural gas fired generation alternatives compared to coal fired alternatives is
6 due to the fact that there are proportionally less commodities such as concrete
7 and steel in natural gas fired generation compared to coal generation as well as
8 proportionally less construction labor required. Also costs for major engineered
9 equipment such as combustion turbines for natural gas fired generation are not
10 increasing as fast as the major engineered equipment for coal units.
11 Furthermore cost increases for pollution control equipment would be less for
12 natural gas fired generation than for coal units.

13

14 **Q. Would this difference in the estimated change in the capital cost estimates**
15 **for coal fired generation versus that for natural gas fired generation change**
16 **the cost-effectiveness of TEC?**

17 A. The potential impact of the updated cost estimates on the cost-effectiveness of
18 TEC is addressed in the rebuttal testimony of Bradley Kushner.

19

20 **Q. Is it unusual for capital costs to change over time?**

21 A. No. Capital costs for generating alternatives are subject to change based on
22 changing prices for equipment, labor, commodities and other items.

23 Fundamental supply and demand forces will affect capital costs for generating
24 alternatives.

1 **Q. Does this conclude your testimony?**

2 **A. Yes.**

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