

1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2 REBUTTAL TESTIMONY OF BRADLEY E. KUSHNER

3 ON BEHALF OF

4 JEA

5 DOCKET NO. 080413

6 JULY 30, 2009

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8 **Q. Please state your name and business address.**

9 A. My name is Bradley E. Kushner. My business address is 11401 Lamar Avenue,  
10 Overland Park, Kansas 66211

11

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

13 A. I am employed by Black & Veatch Corporation as a Manager.

14

15 **Q. Have you previously submitted testimony in this proceeding?**

16 A. Yes. I submitted pre-filed direct testimony on June 1, 2009

17

18 **Q. What is the purpose of your testimony in this proceeding?**

19 A. The purpose of my testimony is to discuss the carbon dioxide (CO<sub>2</sub>) emissions  
20 allowance price projections considered in my analyses as they relate to those  
21 suggested by witness Spellman and witness Steinhurst.

22

23 **Q. Are you sponsoring any exhibits to your testimony?**

24 A. No.

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1 **Q. Witness Steinhurst alleges that the cost-effectiveness analyses did not**  
2 **appropriately account for costs associated with regulation of greenhouse**  
3 **gases (i.e. CO<sub>2</sub>) emissions? How were such costs considered in your**  
4 **analyses?**

5 A. The CO<sub>2</sub> emissions allowance price projections considered in our analyses were  
6 based on those presented in the US Energy Information Administration's (EIA)  
7 April 2008 *Energy Market and Economic Impacts of S.2191, the Lieberman-*  
8 *Warner Climate Security Act of 2007* report.

9

10 **Q. Why was this report chosen as the basis for your CO<sub>2</sub> emissions allowance**  
11 **price projections?**

12 A. The *Energy Market and Economic Impacts of S.2191, the Lieberman-Warner*  
13 *Climate Security Act of 2007* report represented the most recent detailed  
14 analyses of proposed legislation to regulate emissions of CO<sub>2</sub> with  
15 corresponding annual emissions allowance price projections beyond 2019  
16 developed by a US governmental entity at the time we began developing  
17 avoided costs for use in this Docket. Furthermore, these same CO<sub>2</sub> emissions  
18 allowance price projections were considered in the JEA Greenland Energy  
19 Center Combined Cycle Need for Power Application, which was approved by  
20 the Commission February 25, 2009 (Order No. PSC-09-0111-FOF-EM).

21

22 **Q. How do the CO<sub>2</sub> emissions allowance price projections used in your**  
23 **analyses compare to those suggested by witness Steinhurst?**

1 A. The three CO<sub>2</sub> emissions allowance price projections considered in my analyses  
 2 range from approximately \$16 per ton in the low-case to approximately \$36/ton  
 3 in the mid-case to approximately \$94/ton in the high case, all levelized over the  
 4 period of 2012-2027, in 2007 dollars. As shown in the table below, these align  
 5 well with and are actually slightly higher than those suggested by witness  
 6 Steinhurst.

Comparisons of CO <sub>2</sub> Emissions Allowance Price Projections (Levelized \$/ton)			
	Low	Mid	High
Witness Steinhurst	15	30	78
Witness Kushner	16	36	94

7  
8

9 **Q. How do the CO<sub>2</sub> emissions allowance price projections considered in your**  
 10 **analyses compare to any more recent price projections developed by US**  
 11 **governmental entities?**

12 A. I have reviewed the projections developed by the US Environmental Protection  
 13 Agency (EPA) in their report titled EPA Analysis of the American Clean Energy  
 14 and Security Act of 2009 H.R. 2454 in the 111th Congress (dated 6/23/09) and  
 15 the Congressional Budget Office (CBO) cost estimate of H.R. 2454 (dated  
 16 6/5/09). It is difficult to do a direct comparison between the CO<sub>2</sub> emissions  
 17 allowance prices considered in my analyses to those projected by either EPA or  
 18 CBO, as the basis of the projections in the EPA and CBO reports (i.e. real or  
 19 nominal dollars in either the EPA or CBO analysis, metric or short tons in the  
 20 EPA analysis, etc.) is not clear. However, in general the range CO<sub>2</sub> emissions  
 21 allowance prices considered in my analyses encompass those presented in both  
 22 the EPA and CBO reports.

1 **Q. Witness Steinhurst suggests that the potential for state regulation of**  
2 **greenhouse gases in Florida was not considered in your analyses. Is this an**  
3 **important consideration?**

4 A. No. It is irrelevant whether or not the CO<sub>2</sub> emissions allowance price  
5 projections were based on potential Federal- or State-level regulations of  
6 greenhouse gases. What is relevant is that an appropriate range of possible costs  
7 were considered. Based on the range of emissions allowance prices  
8 recommended by witness Steinhurst, and in light of my previous discussion of  
9 comparison of CO<sub>2</sub> emissions allowance price projections, it would appear that  
10 he would agree the price projections considered in my analyses were reasonable  
11 and appropriate, a conclusion that appears to be substantiated by the testimony  
12 of witness Spellman (Page 50, Lines 6-7).

13  
14 Witness Steinhurst's testimony acknowledges that there are numerous different  
15 values of ranges of CO<sub>2</sub> emissions allowance price projections that have been  
16 adopted by various state regulators across the country, which further  
17 demonstrates the magnitude of the speculation related to yet-to-be defined  
18 potential future regulations that do not currently exist.

19  
20 **Q. Does this conclude your testimony?**

21 A. Yes it does.

22