BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

DOCKET NO. 070098-EI
FLORIDA POWER & LIGHT COMPANY

IN RE: FLORIDA POWER & LIGHT COMPANY'S PETITION TO DETERMINE NEED FOR FPL GLADES POWER PARK UNITS 1 AND 2 ELECTRICAL POWER PLANT

REBUTTAL TESTIMONY & EXHIBIT OF:

SETH SCHWARTZ

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

REBUTTAL TESTIMONY OF SETH SCHWARTZ

DOCKET NO. 070098-EI

MARCH 30, 2007

Q. Please state your name and business address.

A. My name is Seth Schwartz. My business address is 1901 North Moore Street, Suite 1200, Arlington, Virginia 22209.

Q. Did you previously submit direct testimony in this proceeding?

A. Yes. I filed direct testimony on February 1, 2007. The purpose of my direct testimony was to provide background information on the coal industry and to provide EVA's expert opinion on an assessment of the transportation strategy FPL is employing at the FPL Glades Power Park ("FGPP") and to affirm the reasonableness of the projected delivered costs and procurement strategy for coal and petroleum coke included in this application.

Q. What is the purpose of your rebuttal testimony?

A. I was asked by FPL to review and comment upon the Direct Testimony and the Supplemental Direct Testimony filed by Richard C. Furman in the current proceeding.

Q. Are you sponsoring any exhibits to your rebuttal testimony?

A. Yes, I am sponsoring an exhibit consisting of 12 documents, Document Nos. SS-21 through SS-32, which is attached to my rebuttal testimony.

Q. Can you please summarize your findings?

A. Yes. Mr. Furman's testimony is that FPL should use Integrated Gasification Combined Cycle ("IGCC") technology for FGPP because it is allegedly lower in cost than the planned technology despite IGCC's higher capital costs. Mr. Furman's testimony hinges on his assumption of a substantial differential between the delivered price of petroleum coke and the delivered price of coal. Mr. Furman represents the prices used in his analysis were derived from historical data published by the Department of Energy. My basic conclusions are that Mr. Furman incorrectly applied historical data, failed to consider FPL's plan to burn a blend of coal and petroleum coke, and conducted no independent evaluation of the supply/demand balance for petroleum coke. As a result, Mr. Furman's finding that the cost of electricity generated from an IGCC plant would be lower than from FGPP is incorrect. Further, Mr. Furman incorrectly characterizes the current utility position with respect to IGCC plants.

FUEL COSTS USED BY MR. FURMAN

Q. What fuel costs did Mr. Furman assume?

A. The fuel costs assumed by Mr. Furman are shown in Exhibit RCF–5. They are $1.11 per MMBtu for petroleum coke and $2.38 per MMBtu for coal. Mr. Furman states that these fuel costs are based upon "Department of Energy, Energy Information Administration, Average Delivered Cost of Coal and Petroleum Coke to Electric Utilities in Florida 2005 and 2004."

Q. Could you confirm the numbers used by Mr. Furman were in fact derived from the Energy Information Administration?

A. No. There is no document entitled "Average Delivered Cost of Coal and Petroleum Coke to Electric Utilities in Florida 2005 and 2004" as implied by Mr. Furman's underline.

Presumably, Mr. Furman used various tables from the Energy Information Administration's Cost and Quality of Fuels for Electric Utility Plants although he provided no specific table references or calculations.[1] The relevant Energy Information Administration tables for petroleum coke are attached to this testimony as Document Nos. SS-21 through SS-23. Document No. SS-21 is the average delivered cost of petroleum coke delivered to utilities by state in 2004 and 2005. Document Nos. SS-22 and SS-23 provide additional detail on the purchases for 2004 and 2005, respectively.

The relevant Energy Information Administration tables for coal are attached to this testimony as Document Nos. SS-24 through SS-26. Document No. SS-24 is the average delivered cost of coal by state in 2004 and 2005. Document Nos. SS-25 and SS-26 provide additional detail on the purchases for 2004 and 2005, respectively.

[1] http://www.eia.doe.gov/cneaf/electricity/cq/cq_sum.html

Document No. SS-27 compares the average delivered prices for petroleum coke and coal to Florida utilities as reported by the Energy Information Administration to the prices Mr. Furman represents in his testimony. Mr. Furman understates the delivered price of petroleum coke and overstates the delivered price of coal. More significant to this analysis, Mr. Furman overstates the spread between the two fuels by $0.36 per MMBtu.

Q. Do the actual data published by the Energy Information Administration accurately reflect the average delivered prices of petroleum coke to Florida utilities?

A. No. According to the Energy Information Administration, the price data reflect the data filed by the utilities on FERC Form 423. If the information filed by the utilities is inaccurate or not reflective of delivered costs, the published data will reflect these problems. A review of the actual FERC Form 423 filings shows that some petroleum coke shipments are to a terminal south of New Orleans on the Mississippi River, not to the power plant itself. As a result, the data do not show the full delivered price.

Q. What petroleum coke shipments are only to New Orleans?

A. Document No. SS-28 summarizes petroleum coke shipments to Florida utilities in 2004 and 2005 as reported by the utilities on FERC Form 423. The data are summarized by plant. As shown, Tampa Electric reports its petroleum coke purchases for Polk Power Station at its TECO Bulk Terminal, located in Davant, Louisiana. In other words, the prices reflect delivery only to Davant, not to Polk Power Station. Therefore, the reported costs do not include either the cost of transloading the petroleum coke from the terminal

yard to the ocean-going barges, the cost of transporting it by barge across the Gulf of Mexico for delivery to TECO's Big Bend Station on Tampa Bay, the cost to unload the barges and transfer the petroleum coke to the storage yard, the cost to load the trucks, and the cost to transport the petroleum coke (whether by itself or blended with coal at Big Bend Station) 30 miles from Big Bend Station to Polk Power Station.

Q. Is this difference significant?

A. Yes. While it is hard to say what the exact difference is, there is no question it is material. An indication of the size of the difference can be seen by examining what Tampa Electric reported to the Florida Public Service Commission as Polk Power Station's fuel costs in 2005. Tampa Electric reports burn, heat rate, and fuel costs in dollars per megawatt-hour for each unit on a monthly basis. As shown in Document No. SS-29, in 2005 Polk Power Station burned 490,000 tons with an average fuel cost of $2.19 per MMBtu. Polk Power Station burns a blend of petroleum coke and coal. The additional costs from Davant include the transloading fee, the Gulf barge fee, the unloading fee at Big Bend, and the trucking charge from Big Bend Station to Polk Power Station. Together, these are significant costs that are not included in Mr. Furman's testimony or exhibits.

Q. Are there other reasons why the Energy Information Administration data would not be a reliable measure of the delivered price for petroleum coke to FGPP?

A. Yes. FGPP is not a coastal plant. As such, the petroleum coke will be delivered to an import terminal, transloaded and then railed to the plant.

Therefore, the price of petroleum coke delivered to a coastal utility will not reflect the delivered price to FGPP. All of the petroleum coke purchased by Jacksonville Electric Authority is delivered directly to St. Johns River Park and Northside and are not comparable to FGPP. Collectively, these deliveries account for over 50 percent of the petroleum coke purchased by Florida utilities in 2004 and 2005. The reported delivered price to inland utilities like the City of Lakeland is about $0.50 per mmBtu higher than the price to the coastal utilities, reflecting the increased transportation costs.

Q. Mr. Furman supplies an average of the 2004 and 2005 data in his testimony. Do you agree with his methodology?

A. As discussed above, his data were not correct or do not represent the market for FGPP. Even if the data were correct and comparable, Mr. Furman's methodology of using historical data to estimate future prices is not appropriate for this purpose. The presumed intent of Mr. Furman's exercise was to determine whether the electricity generated by an IGCC plant would be more economical than by the proposed FGPP. As such, the relevant numbers are the projected costs, not historical ones. There is no indication that Mr. Furman considered any forecast of petroleum coke or coal prices. Mr. Furman confirmed in his deposition (pages 10-11) that he only looked at historical fuel cost information for 2004 and 2005, and did not prepare or rely upon any projections of future fuel prices.

This omission is particularly striking in the context of the 2004 and 2005 data. Between 2004 and 2005, according to the Energy Information Administration

data on delivered prices of petroleum coke to Florida utilities, the average cost increased by almost 50 percent. At a minimum, this increase should have raised questions as to the cause of the increase and whether this step increase was likely to continue into the future.

FPL FUELING PLAN FOR FGPP

Q. What is FPL's fueling plan for FGPP?

A. The baseline fuel plan for FGPP is a blend of domestic coal (40 percent), imported coal (40 percent), and petroleum coke (20 percent). FPL intends to adjust the percentages based upon the relative economics whenever fuels are purchased subject to technical limitations.

Q. Did Mr. Furman acknowledge FPL's fueling plan for FGPP?

A. No. Mr. Furman made no mention of FPL's fueling plan presumably as it would have required him to adjust the fuel cost assumptions in Exhibit RCF-5 for the non-IGCC case to reflect a blend with 20 percent petroleum coke. This would have had the effect of reducing the fuel cost savings which he projects for the IGCC plant, making it less economic. In his deposition (page 11), Mr. Furman admitted that he did not consider South American coal at all, even though it is part of FPL's fuel plan. In fact, Mr. Furman admitted that he did not even prepare Exhibit RCF-5 (which contains his economic analysis, including fuel costs) for use in this proceeding.

Q. Did Mr. Furman suggest that FGPP will have lower availability than an IGCC project because of a potential interruption in its coal supply?

A. Yes. On page 13, lines 20-22 of his Supplemental Testimony, Mr. Furman alleges that "a coal supply interruption, such as a coal strike, can cause the loss of all 1,960 MW because no backup fuel is available." There has not been a coal strike in the United States since 1993, and that strike did not cause any coal-fired plants to run out of coal and shut down. Further, only 21 percent of U.S. coal production came from union mines in 2005, and the union share of production has been declining steadily. Plants like FGPP maintain a stockpile of coal on site to address any disruptions in coal supplies, and this strategy has been quite successful in avoiding the shut down of any coal-fired capacity due to lack of coal supply.

PETROLEUM COKE MARKET OUTLOOK

Q. In your direct testimony, you provided background information on the petroleum coke market as well as your outlook for petroleum coke supply. Did Mr. Furman or any other party comment on your direct testimony in his testimony?

A. No. Moreover, Mr. Furman admitted in his deposition (pages 60-61) that he is not an expert in projecting petroleum coke prices, and he has not performed any projections of petroleum coke prices or availability.

Q. In your testimony, did you explain that the petroleum coke market had changed in recent years?

A. Yes. I explained that petroleum coke production had increased and that continued global increases in the demand for oil and increased use of heavier crude oils would result in continued increases in production of petroleum coke. Document No. SS-30 provides a review of U.S. petroleum coke production during the period 1995 through 2005. Over this period, production increased by 46 percent while exports only increased by 25 percent. There was significant growth in domestic consumption of petroleum coke by both utility plants and industrials.

Q. Did you explain that domestic demand for petroleum coke is expected to increase as a result of the massive retrofitting of scrubbers that is currently underway in the U.S. in order to comply with the Clean Air Interstate Rule ("CAIR") and various state regulations and consent agreements?

A. Yes. I explained that the retrofits of flue gas desulfurization (FGD) equipment on existing power plants would allow utilities to incorporate petroleum coke into their fuel mixes. I did not provide the magnitude of the increase. As shown in Document No. SS-21, EVA expects over 80 gigawatts ("GW") of FGD retrofits of eastern U.S. generating capacity. Assuming up to 20 percent blend of petroleum coke in a pulverized coal boiler, these retrofits could increase U.S. utility demand for petroleum coke by over 30 million tons.

Q. Did you also explain that petroleum coke demand would increase as a result of the construction of new fluidized bed combustors, IGCC plants and PC plants?

A. Yes. I noted that several new fluidized bed projects are under development and anticipate using petroleum coke as the primary source of supply, including projects adjacent to refineries similar to the existing Entergy Nisco project at the Lake Charles refinery and the AES Deepwater project at the BP Houston refinery. I noted but did not list that there are also several new utility plants in construction or under development that plan to use petroleum coke as their primary fuel. These plants are listed in Document No. SS-32. Finally, I noted but did not list the fact that a number of new utility plants are planning to use fuel blends that include petroleum coke. In Florida alone, the Stanton IGCC (Orlando), the Taylor Energy Center (JEA et al), and the new Seminole Generating Station Unit #3 all plan to use a fuel blend that includes petroleum coke.

Q. In your direct testimony, did you explain that petroleum coke prices are not cost driven but set by the supply/demand for petroleum coke?

A. Yes. I explained that the petroleum coke generally tracks petroleum prices subject to supply and demand. If demand increases as a result of the FGD retrofits, new Fluidized Bed Combustion ("FBC") plants, new IGCC plants and new PC plants, the price for petroleum coke will balance at the avoided coal price for the marginal plants, and there will be no fuel cost savings from using petroleum coke, as relied upon by Mr. Furman to justify the higher capital cost of the IGCC plant.

Q. Did you explain that petroleum coke prices are capped by the price of coal because utilities can switch to coal if prices rise to that level and that in 2006 some utilities reduced petroleum coke purchases as a result of high prices?

A. Yes. I explained in 2006 that several utilities reduced petroleum coke consumption in favor of coal as a result of high petroleum coke prices.

Q. Based upon Mr. Furman's testimony, do you believe he understands the market for petroleum coke?

A. No. There are several indications that Mr. Furman does not understand the market for petroleum coke.

On page 9, lines 13-17, Mr. Furman states of the 25 million tons of fuel grade petroleum coke produced in the Gulf, "**almost all** of this petcoke is exported to other countries that allow the higher emissions of SO_2 that petcoke produces." (emphasis added) As discussed above, significant and growing quantities of petroleum coke produced in the Gulf are consumed domestically. In fact, about 8 million tons per year is consumed domestically, and only 17 million tons per year are exported.

Mr. Furman states on page 9, lines 18-19 that "[t]he use of petcoke in the U.S. requires the installation of additional FGD systems to PC plants which is usually cost prohibitive." As stated above, over 80 gigawatts of eastern coal capacity are expected to be retrofit with FGD systems, suggesting it is hardly cost prohibitive.

Mr. Furman states on page 9, lines 21-23, that "**Florida's proximity to the Gulf coast refineries** enables Florida's utilities to make use of **this waste material** while reducing emissions and lowering their cost of electricity." (emphasis added) As previously discussed, the coastal plants in Florida that can receive coal by vessel may be proximate to the Gulf coast refineries, but FGPP is not located on the coast. Because FPL does not have a coastal plant site on which an IGCC could be located, any IGCC plant would also be located at an inland location. Such an inland location would require that the petroleum coke from the Gulf be taken to an import terminal, transloaded into rail cars and railed to the power plant. All of these costs must be considered in any evaluation.

Further, Mr. Furman's characterization of petroleum coke as a waste product is inappropriate. Petroleum coke may be a by-product of refinery but it is hardly a waste product. If it were a waste product, the refineries would either give it away or pay consumers to "take it off their hands" to avoid disposal costs. Petroleum coke is currently selling at over $40 per ton free on board ("FOB") vessel on the Gulf Coast. This is not the pricing of a "waste product".

Finally, Mr. Furman does not quantify the petroleum coke requirements for his suggested strategy. As a petroleum coke-only supplied IGCC, FGPP would require in excess of four million tons of petroleum coke per year. This additional demand alone would equal 25 percent of the total annual exports of

petroleum coke, which would affect the market and pricing for petroleum coke.

Q. Would a fuel strategy which relies exclusively on over four million tons per year of petroleum coke be a prudent fuel supply decision?

A. No. The demand for a plant the size of FGPP would equal over 15 percent of the total supply of petroleum coke. This would leave FGPP far too dependent upon a very limited source of fuel, and would not be as reliable as relying upon a blend of coals from multiple supply regions, in addition to petroleum coke.

INDUSTRY COMMITMENT TO IGCC

Q. Did Mr. Furman misrepresent the success of IGCC in the U.S.?

A. Yes. On page 17, Mr. Furman is asked how long commercial size IGCC plants have been in operation in the U.S. Mr. Furman responds "Commercial IGCC plants have been in operation for more than 10 years in the U.S." He then goes on to describe the Polk and Wabash plants. Mr. Furman does not explain that three IGCC projects (Polk, Wabash, and a third plant Pinon Pine) were built with co-funding from the Department of Energy and that Pinon Pine was a failure and never operated. Mr. Furman also does not mention that Wabash was idled in 2004 and was not returned to service for over a year until it was sold to a third party. In other words, there has been no IGCC plant built and operated in the U.S. to date on a totally commercial basis and performance has been less than reliable.

Q. Did Mr. Furman misrepresent industry commitment to IGCC?

A. Yes. On page 18 of his direct testimony, Mr. Furman states that "there are least twenty-eight (28) IGCC plants being planned in the United States by utilities and independent power producers." A partial list is provided in Exhibit RCF-17. On page eight of his supplemental testimony, Mr. Furman now states there are 32 IGCC plants under development and he cites a NETL report. (http://www.netl.doe.gov/coal/refshelf/ncp.pdf) Mr. Furman does not cite NETL's own qualifying statements which state "[p]roposals to build new power plants are often speculative and typically operate on "boom & bust" cycles, based upon the ever changing economic climate of power generation markets. As such, **it should be noted that many of the proposed plants will not likely be built.**" (emphasis added) Mr. Furman also fails to mention that one of the 32 proposed IGCC plants he references is an FPL IGCC plant under study for St. Lucie County. This plant is not presently planned by FPL.

Q. In what other way does Mr. Furman misrepresent IGCC as the favored technology?

A. Mr. Furman does not provide a balanced outlook with respect to new coal generating capacity. For example, Mr. Furman speaks to American Electric Power's commitment to IGCC in Ohio and West Virginia but does not mention American Electric Power's commitment to an ultra-supercritical plant in Arkansas and possibly Oklahoma. Similarly, Duke Energy is proceeding with the development of new supercritical pulverized coal plant in North Carolina at the same time it is pursing the development of an IGCC in Indiana.

Another example is Mr. Furman's Exhibit RCF-10, where he lists emission limits for three permitted IGCC plants and fails to mention that none of these have been built. We Energies is building Elm Road as a supercritical pulverized coal plant. Kentucky Pioneer has been cancelled with the withdrawal of Department of Energy support. Global Energy's Lima plant is only notionally under construction as it has no financing or off-take agreements.

Q. Does this conclude your testimony?

A. Yes.

Table 9. Average Delivered Cost of Petroleum Coke by Census Division and State: Total (All Sectors), 2005 and 2004

Census Division and State	2005 (cents per million Btu)	2005 (dollars per ton)	2004 (cents per million Btu)	2004 (dollars per ton)	Percent Change 2004-2005 (cents per million Btu)	Percent Change 2004-2005 (dollars per ton)
New England	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--
Maine	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--
Vermont	--	--	--	--	--	--
Middle Atlantic	121	32.92	105	28.49	15.01	15.55
New Jersey	--	--	--	--	--	--
New York	W	W	121	33.7	W	W
Pennsylvania	W	W	86	22.37	W	W
East North Central	W	W	W	W	W	W
Illinois	93	26.61	113	31.99	-18.35	-16.82
Indiana	120	33.97	95	26.47	26.64	28.33
Michigan	W	W	W	W	W	W
Ohio	--	--	--	--	--	--
Wisconsin	W	W	W	W	W	W
West North Central	50	14.05	50	14.29	-0.07	-1.65
Iowa	124	34.97	87	24.4	43.13	43.32
Kansas	110	31.85	93	26.55	19.02	19.96
Minnesota	43	12	43	12.13	0.05	-1.07
Missouri	--	--	68	19.85	--	--
Nebraska	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--
South Atlantic	W	W	W	W	W	W
Delaware	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--
Florida	140	39.64	94	26.46	50.16	49.81
Georgia	W	W	W	W	W	W
Maryland	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--
South Carolina	101	28.64	84	23.55	21.4	21.61
Virginia	--	--	--	--	--	--
West Virginia	W	W	--	--	--	--
East South Central	W	W	65	17.93	W	W
Alabama	--	--	--	--	--	--
Kentucky	W	W	65	17.93	W	W
Mississippi	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--
West South Central	72	20.98	W	W	W	W
Arkansas	--	--	--	--	--	--
Louisiana	W	W	W	W	W	W
Oklahoma	--	--	--	--	--	--
Texas	W	W	W	W	W	W
Mountain	--	--	--	--	--	--
Arizona	--	--	--	--	--	--
Colorado	--	--	--	--	--	--
Idaho	--	--	--	--	--	--
Montana	--	--	--	--	--	--
Nevada	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--
Utah	--	--	--	--	--	--

Table 9. Average Delivered Cost of Petroleum Coke by Census Division and State: Total (All Sectors), 2005 and 2004

Census Division and State	2005		2004		Percent Change 2004-2005	Percent Change 2004-2005
	(cents per million Btu)	(dollars per ton)	(cents per million Btu)	(dollars per ton)	(cents per million Btu)	(dollars per ton)
Wyoming	--	--	--	--	--	--
Pacific Contiguous	**W**	**W**	**148**	**42.14**	**W**	**W**
California	W	W	148	42.14	W	W
Oregon	--	--	--	--	--	--
Washington	--	--	--	--	--	--
Pacific Noncontiguous	**--**	**--**	**--**	**--**	**--**	**--**
Alaska	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--
U.S. Total	**111**	**31.35**	**83**	**23.48**	**33.44**	**33.52**

W = Withheld to avoid disclosure of individual company data.

Notes: • Totals may not equal sum of components because of independent rounding. • Monetary values are expressed in nominal terms.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report;" Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table 10.B. Receipts and Average Delivered Cost of Petroleum Coke by Type of Purchase, Census Division and State: Total (All Sectors), 2004

Census Division and State	Contract			Spot			Unclassified/Other			Total		
		Cost			Cost			Cost			Cost	
	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)
New England	–	–	–	–	–	–	–	–	–	–	–	–
Connecticut	--	--	--	--	--	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	–	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	–	--	--	--	--	--
Middle Atlantic	394	–	–	344	–	–	–	–	–	738	105	28.49
New Jersey	--	--	--	--	--	--	--	--	--	--	--	--
New York	279	--	--	119	–	--	--	--	–	398	121	33.7
Pennsylvania	114	--	--	225	--	--	--	--	--	339	86	22.37
East North Central	502	103	28.87	173	80	22.27	51	83	23.71	526	W	W
Illinois	74	113	31.99	--	--	–	--	--	–	74	113	31.99
Indiana	96	95	26.47	--	--	--	--	--	--	96	95	26.47
Michigan	--	--	--	55	104	28.77	--	--	--	55	W	W
Ohio	–	--	--	–	--	--	--	--	--	--	--	--
Wisconsin	132	--	–	118	71	19.82	51	83	23.71	302	W	W
West North Central	275	46	13.12	24	78	22.91	21	71	19.96	320	50	14.29
Iowa	--	--	--	3	108	30.39	11	81	22.68	14	87	24.4
Kansas	--	--	--	3	93	26.55	--	--	--	3	93	26.55
Minnesota	236	43	12.13	--	--	--	5	43	12.13	241	43	12.13
Missouri	40	65	19	18	71	21.01	5	80	22.63	62	68	19.85
Nebraska	--	--	--	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--	--	--
South Dakota	–	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	265	133	37.15	2,204	91	25.82	946	91	25.52	3,415	W	W
Delaware	--	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	–	--	--	--	--	--	--	--
Florida	138	133	37.15	2,031	91	25.82	702	93	26.2	2,870	94	26.46
Georgia	127	--	--	173	--	--	–	--	--	300	W	W
Maryland	--	--	–	--	--	--	--	--	--	--	--	--
North Carolina	–	--	--	--	--	--	--	--	--	--	--	--
South Carolina	--	--	–	--	--	–	244	84	23.55	244	84	23.55
Virginia	--	--	--	--	--	--	--	--	--	--	--	–
West Virginia	--	--	--	--	--	--	--	--	--	--	--	--
East South Central	372	–	–	221	–	–	–	–	–	592	65	17.93
Alabama	--	--	--	--	--	--	--	--	--	--	–	--
Kentucky	372	--	--	221	--	--	--	--	--	592	65	17.93
Mississippi	--	--	--	--	--	--	--	--	--	--	--	--
Tennessee	--	--	–	--	--	--	--	--	–	--	--	--
West South Central	1,203	–	–	–	–	–	–	–	–	1,203	W	W
Arkansas	--	--	--	--	--	--	--	--	--	--	--	--
Louisiana	677	--	--	--	--	--	--	--	--	677	W	W
Oklahoma	--	--	--	--	--	--	--	--	--	--	--	--
Texas	526	--	--	--	--	--	--	--	–	526	W	W
Mountain	–	–	–	–	–	–	–	–	–	–	–	–
Arizona	--	--	--	--	--	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	–	--	--	--	--	--
Nevada	--	--	--	--	--	--	--	--	--	--	–	--

Table 10.B. Receipts and Average Delivered Cost of Petroleum Coke by Type of Purchase, Census Division and State: Total (All Sectors), 2004

Census Division and State	Contract			Spot			Unclassified/Other			Total		
		Cost			Cost			Cost			Cost	
	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)
New Mexico	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	120	--	--	54	--	--	--	--	--	174	148	42.14
California	120	--	--	54	--	--	--	--	--	174	148	42.14
Oregon	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--
Pacific Noncontiguous	--	--	--	--	--	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	2,930	83	23.39	3,019	90	25.53	1,018	90	25.31	6,967	83	23.48

W = Withheld to avoid disclosure of individual company data.

Notes: • Receipts and total average delivered cost of fuel reflect data supplied via both the Form EIA-423 and the FERC Form 423. Average delivered cost for contract, spot, and unclassified/other purchase types reflect data supplied via the FERC Form 423 only. • Totals may not equal sum of components because of independent rounding. • Monetary values are expressed in nominal terms.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report;" Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table 10.A. Receipts and Average Delivered Cost of Petroleum Coke by Type of Purchase, Census Division and State: Total (All Sectors), 2005

Census Division and State	Contract			Spot			Unclassified/Other			Total		
		Cost			Cost			Cost			Cost	
	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)
New England	--	--	--	--	--	--	--	--	--	--	--	--
Connecticut	--	--	--	--	--	--	--	--	--	--	--	--
Maine	--	--	--	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--	--	--	--
Middle Atlantic	**458**	--	--	**117**	--	--	--	--	--	**574**	**121**	**32.92**
New Jersey	--	--	--	--	--	--	--	--	--	--	--	--
New York	307	--	--	49	--	--	--	--	--	356	W	W
Pennsylvania	151	--	--	68	--	--	--	--	--	218	W	W
East North Central	**304**	**70**	**19.75**	**132**	**87**	**24.73**	**31**	**84**	**23.88**	**467**	**W**	**W**
Illinois	17	92	26.58	--	--	--	*	110	30.98	17	93	26.61
Indiana	--	--	--	--	--	--	4	120	33.97	4	120	33.97
Michigan	--	--	--	69	121	33.84	--	--	--	69	W	W
Ohio	--	--	--	--	--	--	--	--	--	--	--	--
Wisconsin	287	68	18.94	63	70	20	27	79	22.37	377	W	W
West North Central	**224**	**43**	**12**	**25**	**112**	**32.12**	**--**	**--**	**--**	**249**	**50**	**14.05**
Iowa	--	--	--	2	124	34.97	--	--	--	2	124	34.97
Kansas	--	--	--	23	110	31.85	--	--	--	23	110	31.85
Minnesota	224	43	12	--	--	--	--	--	--	224	43	12
Missouri	--	--	--	--	--	--	--	--	--	--	--	--
Nebraska	--	--	--	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--	--	--
South Atlantic	**204**	**141**	**39.64**	**3,014**	**140**	**39.52**	**194**	**135**	**38.15**	**3,412**	**W**	**W**
Delaware	--	--	--	--	--	--	--	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--	--	--	--
Florida	106	141	39.64	2,793	140	39.52	139	148	41.92	3,038	140	39.64
Georgia	98	--	--	216	--	--	--	--	--	314	W	W
Maryland	--	--	--	--	--	--	--	--	--	--	--	--
North Carolina	--	--	--	--	--	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	55	101	28.64	55	101	28.64
Virginia	--	--	--	--	--	--	--	--	--	--	--	--
West Virginia	--	--	--	5	145	36.35	--	--	--	5	W	W
East South Central	**1,279**	**--**	**--**	**84**	**--**	**--**	**--**	**--**	**--**	**1,363**	**W**	**W**
Alabama	--	--	--	--	--	--	--	--	--	--	--	--
Kentucky	1,279	--	--	84	--	--	--	--	--	1,363	W	W
Mississippi	--	--	--	--	--	--	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--	--	--	--	--	--	--
West South Central	**1,186**	**--**	**--**	**45**	**--**	**--**	**4**	**98**	**27.87**	**1,235**	**72**	**20.98**
Arkansas	--	--	--	--	--	--	--	--	--	--	--	--
Louisiana	701	--	--	--	--	--	--	--	--	701	W	W
Oklahoma	--	--	--	--	--	--	--	--	--	--	--	--
Texas	486	--	--	45	--	--	4	98	27.87	535	W	W
Mountain	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Arizona	--	--	--	--	--	--	--	--	--	--	--	--
Colorado	--	--	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	--	--	--	--	--	--	--	--	--	--
Montana	--	--	--	--	--	--	--	--	--	--	--	--
Nevada	--	--	--	--	--	--	--	--	--	--	--	--
New Mexico	--	--	--	--	--	--	--	--	--	--	--	--
Utah	--	--	--	--	--	--	--	--	--	--	--	--
Wyoming	--	--	--	--	--	--	--	--	--	--	--	--
Pacific Contiguous	**117**	**--**	**--**	**83**	**--**	**--**	**--**	**--**	**--**	**201**	**W**	**W**
California	117	--	--	83	--	--	--	--	--	201	W	W
Oregon	--	--	--	--	--	--	--	--	--	--	--	--
Washington	--	--	--	--	--	--	--	--	--	--	--	--

Table 10.A. Receipts and Average Delivered Cost of Petroleum Coke by Type of Purchase, Census Division and State: Total (All Sectors), 2005

Census Division and State	Contract			Spot			Unclassified/Other			Total		
		Cost			Cost			Cost			Cost	
	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)	Receipts (1,000 tons)	(cents per million Btu)	($ per ton)
Pacific Noncontiguous	--	--	--	--	--	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--	--	--	--
Hawaii	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Total	3,773	73	28.51	3,598	138	38.97	230	127	36.02	7,502	111	31.35

* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "*".)

W = Withheld to avoid disclosure of individual company data.

Notes: • Receipts and total average delivered cost of fuel reflect data supplied via both the Form EIA-423 and the FERC Form 423. Average delivered cost for contract, spot, and unclassified/other purchase types reflect data supplied via the FERC Form 423 only. • Totals may not equal sum of components because of independent rounding. • Monetary values are expressed in nominal terms.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report;" Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

The Average Delivered Cost of Coal by State in 2004 and 2005

Census Division and State	2005 (cents per million Btu)	2005 (dollars per ton)	2004 (cents per million Btu)	2004 (dollars per ton)	Percent Change 2004- 2005 (cents per million Btu)	Percent Change 2004- 2005 (dollars per ton)
New England	**273**	**63.79**	**209**	**49.27**	**30.75**	**29.47**
Connecticut	W	W	W	W	W	W
Maine	W	W	W	W	W	W
Massachusetts	W	W	197	46.43	W	W
New Hampshire	244	63.78	202	53.17	20.89	19.95
Rhode Island	--	--	--	--	--	--
Vermont	--	--	--	--	--	--
Middle Atlantic	**173**	**40.88**	**147**	**34.55**	**17.41**	**18.3**
New Jersey	218	55.14	205	52.66	6.53	4.71
New York	213	50.5	176	42.36	21.51	19.22
Pennsylvania	159	37.37	137	31.85	15.98	17.33
East North Central	**141**	**28.91**	**125**	**25.56**	**12.53**	**13.14**
Illinois	119	21.46	115	20.96	3.61	2.39
Indiana	W	W	W	W	W	W
Michigan	158	31.69	139	27.68	13.92	14.49
Ohio	154	37.33	133	32.23	15.86	15.82
Wisconsin	W	W	W	W	W	W
West North Central	**99**	**16.64**	**93**	**15.51**	**7.18**	**7.24**
Iowa	W	W	W	W	W	W
Kansas	112	19.22	103	17.74	9.07	8.34
Minnesota	W	W	W	W	W	W
Missouri	W	W	W	W	W	W
Nebraska	71	12.16	66	11.3	7.66	7.61
North Dakota	82	10.99	77	10.2	6.35	7.75
South Dakota	142	24.82	139	23.61	2.84	5.12
South Atlantic	**211**	**50.87**	**179**	**43.21**	**17.97**	**17.72**
Delaware	W	W	W	W	W	W
District of Columbia	--	--	--	--	--	--
Florida	231	56.56	192	46.92	20.75	20.55
Georgia	218	48.15	180	39.73	20.82	21.19
Maryland	192	48.42	174	43.96	10.25	10.15
North Carolina	240	58.96	200	49.38	19.75	19.4
South Carolina	W	W	W	W	W	W
Virginia	233	58.93	195	49.6	19.36	18.81
West Virginia	W	W	135	32.59	W	W
East South Central	**165**	**36.44**	**143**	**31.76**	**15.79**	**14.74**
Alabama	W	W	W	W	W	W
Kentucky	W	W	137	31.57	W	W
Mississippi	W	W	W	W	W	W
Tennessee	W	W	W	W	W	W
West South Central	**129**	**20.47**	**W**	**W**	**W**	**W**
Arkansas	146	25.56	123	21.49	19.18	18.94
Louisiana	W	W	W	W	W	W
Oklahoma	W	W	W	W	W	W
Texas	129	19.63	131	20.01	-1.51	-1.9
Mountain	**118**	**22.93**	**111**	**21.45**	**6.98**	**6.91**
Arizona	W	W	W	W	W	W
Colorado	106	20.89	97	19.09	8.83	9.43
Idaho	--	--	--	--	--	--
Montana	W	W	W	W	W	W
Nevada	154	34.44	136	30.28	13.23	13.74

The Average Delivered Cost of Coal by State in 2004 and 2005

Census Division and State	2005 (cents per million Btu)	2005 (dollars per ton)	2004 (cents per million Btu)	2004 (dollars per ton)	Percent Change 2004- 2005 (cents per million Btu)	Percent Change 2004- 2005 (dollars per ton)
New Mexico	151	27.68	148	27.25	2.17	1.58
Utah	W	W	W	W	W	W
Wyoming	95	16.71	87	15.28	9.51	9.36
Pacific Contiguous	**W**	**W**	**W**	**W**	**W**	**W**
California	W	W	188	45.9	W	W
Oregon	128	21.33	118	19.91	7.71	7.13
Washington	W	W	W	W	W	W
Pacific Noncontiguous	**W**	**W**	**W**	**W**	**W**	**W**
Alaska	--	--	--	--	--	--
Hawaii	W	W	W	W	W	W
U.S. Total	**154**	**31.2**	**136**	**27.42**	**13.41**	**13.79**

W = Withheld to avoid disclosure of individual company data.

Notes: • Totals may not equal sum of components because of independent rounding. • Monetary values are expressed in nominal terms.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report;" Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table 3.B. Receipts and Average Delivered Cost of Coal by Type of Purchase, Mine Type, Census Division and State: Total (All Sectors), 2004

Census Division and State	Type of Purchase								
	Contract			Spot			Unclassified/Other		
		Cost			Cost			Cost	
	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)
New England	**6,409**	**208**	**56.33**	**506**	**223**	**56.51**	**1,362**	**192**	**49.64**
Connecticut	1,922	--	--	--	--	--	--	--	--
Maine	271	--	--	--	--	--	--	--	--
Massachusetts	3,931	--	--	189	229	55.03	271	184	43.89
New Hampshire	285	208	56.33	317	220	57.32	1,091	194	51.07
Rhode Island	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--
Middle Atlantic	**48,603**	**146**	**38.06**	**6,248**	**199**	**51.9**	**51**	**177**	**45.55**
New Jersey	1,774	209	54.96	495	241	63.71	4	226	57.2
New York	8,234	151	40	1,340	161	41.71	47	173	44.49
Pennsylvania	38,595	123	31.8	4,414	181	35.83	--	--	--
East North Central	**170,654**	**121**	**25.27**	**30,233**	**148**	**32.82**	**15,579**	**131**	**27.31**
Illinois	54,248	115	21.63	3,326	106	18.5	2,120	126	24.71
Indiana	45,498	117	24.75	6,975	142	31.89	1,624	124	25.37
Michigan	23,237	137	27.62	5,795	143	27.26	5,916	131	25.22
Ohio	26,773	122	29.63	12,927	155	36.78	4,117	133	32.18
Wisconsin	20,897	112	19.74	1,209	146	29.29	1,803	140	27.87
West North Central	**131,891**	**92**	**15.51**	**4,190**	**94**	**16.81**	**9,171**	**90**	**15.05**
Iowa	15,278	89	15.36	232	143	32.06	4,296	90	15.53
Kansas	19,467	104	17.89	445	81	14.23	1,067	95	16.45
Minnesota	19,484	104	18.49	254	140	25.78	132	192	44.21
Missouri	41,681	92	16.24	1,360	104	18.88	1,859	90	15.89
Nebraska	10,608	65	11.18	1,653	71	12.08	255	66	11.34
North Dakota	23,389	77	10.19	82	121	20.88	1,562	75	9.92
South Dakota	1,983	140	23.84	165	123	20.82	--	--	--
South Atlantic	**116,941**	**170**	**40.91**	**38,033**	**198**	**47.55**	**25,489**	**191**	**45.4**
Delaware	1,175	--	--	973	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--
Florida	14,087	177	43.02	6,338	199	48.88	11,859	194	47.73
Georgia	26,012	176	39.75	7,422	198	43.35	4,018	166	30.15
Maryland	12,327	--	--	491	--	--	--	--	--
North Carolina	21,116	193	47.73	6,177	219	53.5	2,815	204	50.3
South Carolina	6,184	179	45.05	4,235	205	51.42	4,496	194	48.68
Virginia	8,263	172	43.73	4,562	212	53.2	2,225	189	48.11
West Virginia	27,777	132	32.03	7,836	165	39.84	76	141	34.1
East South Central	**87,278**	**137**	**30.48**	**12,347**	**178**	**41.47**	**18,176**	**145**	**34.02**
Alabama	26,477	149	31.69	2,230	159	37.43	5,098	158	37.28
Kentucky	24,992	127	29.17	6,219	182	43.41	6,665	140	32.44
Mississippi	7,315	160	36.89	2,022	200	45.51	288	162	33.95
Tennessee	28,495	131	29.47	1,877	159	33.6	6,125	137	33.04
West South Central	**110,774**	**121**	**19.89**	**21,875**	**122**	**21.47**	**17,962**	**135**	**22.18**
Arkansas	1,124	129	22.16	12,790	122	21.39	691	127	22.19
Louisiana	9,457	133	23.22	2,221	--	--	3,835	143	19.41
Oklahoma	20,144	101	17.62	243	90	15.05	--	--	--
Texas	80,049	136	21.07	6,622	126	22.19	13,435	134	22.98
Mountain	**106,522**	**112**	**21.64**	**5,026**	**112**	**22.27**	**5,917**	**117**	**25.44**
Arizona	18,220	128	26.38	1,767	127	24.11	328	141	27.77

Table 3.B. Receipts and Average Delivered Cost of Coal by Type of Purchase, Mine Type, Census Division and State: Total (All Sectors), 2004

Census Division and State	Type of Purchase								
	Contract			Spot			Unclassified/Other		
		Cost			Cost			Cost	
	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)
Colorado	16,894	98	19.27	1,409	81	16.28	531	100	20.65
Idaho	--	--	--	--	--	--	--	--	--
Montana	11,100	63	10.64	15	127	22.13	--	--	--
Nevada	6,240	136	30.47	625	130	27.05	1,624	137	30.79
New Mexico	16,632	148	27.25	--	--	--	--	--	--
Utah	12,053	116	25.28	1,092	122	25.71	3,393	108	23.54
Wyoming	25,383	87	15.31	118	55	9.12	41	85	14.8
Pacific Contiguous	**7,851**	**--**	**--**	**2,295**	**118**	**19.91**	**--**	**--**	**--**
California	1,294	--	--	44	--	--	--	--	--
Oregon	--	--	--	2,251	118	19.91	--	--	--
Washington	6,557	--	--	--	--	--	--	--	--
Pacific Noncontiguous	**647**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Alaska	--	--	--	--	--	--	--	--	--
Hawaii	647	--	--	--	--	--	--	--	--
U.S. Total	**787,570**	**125**	**25.05**	**120,753**	**165**	**36.01**	**93,708**	**150**	**31.57**

Notes: • Receipts and total average delivered cost of fuel reflect data supplied via both the Form EIA-423 and the FERC Form 423. Average delivered cost for contract, spot, and unclassified/other purchase types reflect data supplied via the FERC Form 423 only. • Totals may not equal sum of components because of independent rounding. • Monetary values are expressed in nominal terms.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report;" Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table 3.A. Receipts and Average Delivered Cost of Coal by Type of Purchase, Mine Type, Census Division and State: Total (All Sectors), 2005

Census Division and State	Type of Purchase								
	Contract			Spot			Unclassified/Other		
		Cost			Cost			Cost	
	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)
New England	**4,264**	**232**	**61.6**	**4,621**	**262**	**66.52**	**77**	**299**	**69.73**
Connecticut	1,925	--	--	--	--	--	--	--	--
Maine	257	--	--	--	--	--	--	--	--
Massachusetts	1,529	--	--	3,426	310	72.13	77	299	69.73
New Hampshire	553	232	61.6	1,195	249	64.79	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--
Vermont	--	--	--	--	--	--	--	--	--
Middle Atlantic	**53,892**	**183**	**47.54**	**5,327**	**251**	**64.06**	**13**	**228**	**58.36**
New Jersey	4,002	282	73.95	611	253	65.21	7	223	56.45
New York	9,038	204	53.41	521	251	62.46	6	232	60.3
Pennsylvania	40,852	151	38.83	4,194	158	34.48	--	--	--
East North Central	**176,002**	**134**	**28.09**	**31,388**	**183**	**40.99**	**12,385**	**137**	**28.58**
Illinois	51,453	118	22.34	346	128	27.4	4,874	114	20.03
Indiana	43,096	128	26.98	10,164	180	41.29	5,191	146	33.7
Michigan	27,460	143	28.26	8,135	195	39.96	709	160	32.3
Ohio	32,646	145	35.07	10,463	180	43.01	1,551	150	36.97
Wisconsin	21,346	119	21.33	2,279	184	35.6	60	110	19.01
West North Central	**137,489**	**98**	**16.3**	**4,579**	**113**	**20.92**	**1,015**	**103**	**18.66**
Iowa	18,535	94	16.15	293	162	35.54	297	118	22.14
Kansas	20,322	112	19.2	96	133	24.13	54	113	19.17
Minnesota	20,062	111	19.7	--	--	--	28	176	42.16
Missouri	42,001	98	17.32	1,412	163	33.29	242	118	21.72
Nebraska	9,579	70	12	2,642	74	12.7	394	73	12.44
North Dakota	25,252	82	10.92	136	137	23.71	--	--	--
South Dakota	1,738	142	24.82	--	--	--	--	--	--
South Atlantic	**151,353**	**206**	**49.07**	**31,759**	**247**	**59.54**	**4,591**	**225**	**55.34**
Delaware	1,312	--	--	962	--	--	--	--	--
District of Columbia	--	--	--	--	--	--	--	--	--
Florida	21,498	218	53.66	7,807	251	60.4	3,826	233	56.84
Georgia	33,424	208	45.67	5,131	274	62.19	3	227	56.21
Maryland	11,220	--	--	524	--	--	--	--	--
North Carolina	26,793	231	56.52	5,711	281	69.44	10	252	61.91
South Carolina	13,832	214	54.05	1,708	242	60.65	752	188	47.61
Virginia	12,754	220	55.49	2,307	255	63.98	1	229	58.02
West Virginia	30,320	147	35.13	7,610	192	46.57	--	--	--
East South Central	**100,099**	**156**	**34.72**	**20,615**	**212**	**49.85**	**4,590**	**146**	**28.53**
Alabama	32,034	173	37.61	2,990	236	54.89	1,120	189	44.04
Kentucky	31,007	143	33.26	10,054	189	44.89	434	155	36.29
Mississippi	8,509	206	45	1,636	278	65.13	--	--	--
Tennessee	28,549	141	30.99	5,936	218	50.54	3,036	123	21.69
West South Central	**172,161**	**128**	**20.9**	**25,956**	**135**	**23.56**	**--**	**--**	**--**
Arkansas	2,080	110	18.95	11,603	153	26.75	--	--	--
Louisiana	12,575	158	24.66	2,506	--	--	--	--	--
Oklahoma	20,900	102	17.58	617	86	15.2	--	--	--
Texas	86,606	141	22.25	11,230	108	18.55	--	--	--
Mountain	**112,091**	**119**	**23.14**	**3,610**	**119**	**24.54**	**2,653**	**151**	**28.05**
Arizona	20,115	139	28.16	317	157	29.14	312	146	27.5
Colorado	17,016	106	20.86	1,297	100	21.18	5	99	18.86
Idaho	--	--	--	--	--	--	--	--	--
Montana	11,394	69	11.62	2	140	24.31	22	110	14.43

Table 3.A. Receipts and Average Delivered Cost of Coal by Type of Purchase, Mine Type, Census Division and State: Total (All Sectors), 2005

Census Division and State	Type of Purchase								
	Contract			Spot			Unclassified/Other		
		Cost			Cost			Cost	
	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)	Receipts (1,000 tons)	(cents per million Btu)	(dollars per ton)
Nevada	7,200	154	34.72	880	117	24.66	393	234	51.28
New Mexico	15,078	153	28.21	--	--	--	1,920	131	23.57
Utah	16,288	112	24.54	1,114	135	27.04	--	--	--
Wyoming	25,000	95	16.71	--	--	--	--	--	--
Pacific Contiguous	**8,088**	--	--	**2,314**	**128**	**21.33**	--	--	--
California	1,589	--	--	41	--	--	--	--	--
Oregon	--	--	--	2,273	128	21.33	--	--	--
Washington	6,499	--	--	--	--	--	--	--	--
Pacific Noncontiguous	**706**	--	--	--	--	--	--	--	--
Alaska	--	--	--	--	--	--	--	--	--
Hawaii	706	--	--	--	--	--	--	--	--
U.S. Total	**865,944**	**145**	**29.13**	**130,170**	**197**	**43.08**	**25,323**	**198**	**33.13**

Notes: • Includes anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal. • Receipts reflect data supplied via both the Form EIA-423 and the FERC Form 423. Average delivered cost of fuel reflects data supplied via the FERC Form 423 only. • Totals may not equal sum of components because of independent rounding. • The cost of coal receipts displayed for the States of Alabama, Florida, Kentucky, and Tennessee does not represent the total average delivered cost of coal for these States and their respective Census Divisions. In some instances, coal is delivered to a transfer facility prior to being delivered to the power plant. The costs presented in this table reflect the initial delivery costs, not any additional costs incurred to deliver the coal from the transfer facility to the power plant site. • Monetary values are expressed in nominal terms.

Sources: Energy Information Administration, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report;" Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

COMPARISON OF REPORTED FLORIDA UTILITY FUEL COSTS WITH FURMAN EVIDENCE

	2004*			2005**			Average 2004 and 2005		Per RCF-5	EIA Minus
	Tons (000)	$/Ton	$/MMBtu	Tons (000)	$/Ton	$/MMBtu	$/Ton	$/MMBtu	$/MMBtu	RCF 5
Petroleum Coke	2,870	26.46	0.94	3,038	39.64	1.40	33.24	1.18	1.12	0.06
Coal	32,284	45.90	1.88	33,131	55.62	2.27	50.82	2.08	2.38	(0.30)
Spread (Coal Minus Petroleum Coke)								0.90	1.26	(0.36)

* Cost and Quality of Fuels for Electric Utility Plants, 2004 and 2005 (http://www.eia.doe.gov/cneaf/electricity/cq/cq_sum.html)

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Comparison of Reported Florida Utility
Fuel Costs With Furman Evidence

PETROLEUM COKE PURCHASES BY FLORIDA UTILITIES

		2004				2005			
Utility	Plant	Tons (000)	Btu/lb	$/Ton	$/MMBtu	Tons (000)	Btu/lb	$/Ton	$/MMBtu
JEA	Northside	812,800	14,275	25.13	0.88	1,142,200	14,107	39.53	1.40
	St. Johns Power Park	660,290	14,128	26.00	0.92	553,770	14,190	35.60	1.25
		1,473,090	14,209	25.52	0.90	1,695,970	14,134	38.25	1.35
Lakeland	McIntosh	8,000	14,130	38.41	1.36	66,000	13,994	52.72	1.88
Seminole	Seminole	787,444	14,173	29.91	1.06	808,434	14,182	47.51	1.67
Tampa	Davant	386,760	13,399	19.39	0.72	301,180	14,008	25.27	0.90
	Big Bend	59,330	14,322	22.28	0.78	66,630	14,107	31.88	1.13
		446,090	13,521	19.78	0.73	367,810	14,026	26.47	0.94
TOTAL		2,714,624	14,085	25.89	0.92	2,938,214	14,131	39.65	1.40

Source: FERC Form 423

POLK FUEL CONSUMPTION AND REPORTED COST

	Consumption Tons (1,000)	Reported Heat Rate (Btu/kwh)	Reported Fuel ($/MWH)	Calculated Fuel ($/MMBtu)
Jan-05	10,440	12,254	2.34	2.87
Apr-05	3,450	Not reported	(15.96)	NA
May-05	60,371	10,549	1.99	2.10
Jun-05	60,929	10,197	1.93	1.97
Jul-05	54,757	10,464	2.09	2.19
Aug-05	57,517	10,521	2.11	2.22
Sep-05	55,139	10,162	1.75	1.78
Oct-05	65,985	11,249	2.19	2.46
Nov-05	69,620	10,392	2.44	2.54
Dec-05	51,862	10,143	2.17	2.20
	490,070			2.19

Source: Filings by Tampa Electric to the Florida Public Service Commission
http://www.floridapsc.com/library/filings/06/01782-06/01782-06.pdf

U.S. PETROLEUM COKE SUPPLY AND SHIPMENTS (1,000 Tons)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2005 vs 1995
Marketable Production												
PADD I East Coast	1,327	1,400	1,403	1,447	1,395	1,357	1,437	1,348	1,191	1,461	1,259	-5%
PADD II Midwest	5,928	6,447	6,623	6,825	6,594	6,901	6,875	6,300	6,437	7,247	7,581	28%
PADD III Gulf Coast	13,685	15,028	16,122	16,825	17,523	17,647	21,057	22,523	23,271	25,193	24,495	79%
PADD IV Rockies	583	485	616	713	712	721	687	716	747	797	812	39%
PADD V West Coast	8,198	8,410	8,701	9,006	8,448	9,005	8,524	8,744	8,970	8,758	9,321	14%
	29,722	**31,770**	**33,465**	**34,816**	**34,672**	**35,630**	**38,580**	**39,630**	**40,616**	**43,457**	**43,467**	**46%**
Exports												
PADD I East Coast	481	673	783	517	374	364	764	750	831	715	869	81%
PADD II Midwest	314	504	328	398	186	207	222	202	398	645	477	52%
PADD III Gulf Coast	11,892	12,284	13,737	11,012	10,394	14,905	16,431	15,487	17,359	16,854	16,834	42%
PADD IV Rockies	3	1	0	0	0	4	2	6	2	6	4	57%
PADD V West Coast	7,529	7,410	7,475	7,578	6,746	7,838	7,130	8,180	7,761	7,387	7,180	-5%
	20,220	**20,872**	**22,323**	**19,504**	**17,701**	**23,318**	**24,549**	**24,625**	**26,350**	**25,607**	**25,364**	**25%**
Domestic Demand												
PADD I East Coast	846	727	620	930	1,020	993	674	597	360	746	390	-54%
PADD II Midwest	5,614	5,944	6,295	6,427	6,408	6,694	6,653	6,098	6,039	6,602	7,104	27%
PADD III Gulf Coast	1,793	2,744	2,385	5,814	7,128	2,742	4,625	7,036	5,912	8,339	7,661	327%
PADD IV Rockies	580	485	616	713	712	717	685	710	745	791	807	39%
PADD V West Coast	669	1,000	1,226	1,428	1,702	1,167	1,393	564	1,210	1,371	2,141	220%
	9,502	**10,899**	**11,142**	**15,312**	**16,971**	**12,313**	**14,031**	**15,005**	**14,266**	**17,850**	**18,103**	**91%**

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S.Schwartz, Exhibit No.____
Document No. SS-30, Page 1 of 1
U.S. Petroleum Coke Supply and Shipments

EASTERN FGD PROJECTS
(MW)

Year	Announced	Projected	Total
2005	198	0	198
2006	5,077	0	5,077
2007	10,916	0	10,916
2008	17,650	0	17,650
2009	22,429	0	22,429
2010	13,806	0	13,806
2011	4,349	1,398	5,747
2012	4,466	982	5,447
2013	2,890	1,029	3,919
2014	2,363	471	2,834
2015	3,046	0	3,046
Unknown	0	5,349	5,349
	87,187	**9,229**	**96,416**

NEW PETROLEUM COKE-FIRED CAPACITY

Owner	Plant	Unit	State	MW	Year	Status	Boiler	Est. PC Demand (MMTPY)
Cleco Power	Rodemacher	3	LA	600	2009	Construction	FBC	1.4
NuCoastal Energy	Port Lavaca	1	TX	300	2008	Proposed	FBC	0.7
NRG Energy	Big Cajun I		LA	230	2009	Proposed	FBC	0.5
Edison International	BP Carson		CA	500	2011	Proposed	IGCC	1.2
Tondu Energy	Nueces		TX	600	2011	Proposed	IGCC	1.4
Hunton Energy	Lockwood	1-2	TX	1,200	2012	Proposed	IGCC	2.9
TECO Energy	Polk	6	FL	630	2013	Proposed	IGCC	1.5