BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

Docket No. 110001-El

Prepared Direct Testimony of H. R. Ball

Date of Filing: August 1, 2011



A SOUTHERN COMPANY

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1		GULF POWER COMPANY
2		Before the Florida Public Service Commission
3		Prepared Direct Testimony of
4		H. R. Ball
5		Docket No. 110001-El
6		Date of Filing: August 1, 2011
7		
8	Q.	Please state your name and business address.
9	Α.	My name is H. R. Ball. My business address is One Energy Place,
10		Pensacola, Florida 32520-0335. I am the Fuel Manager for Gulf Power
11		Company.
12		
13	Q.	Please briefly describe your educational background and business
14		experience.
15	А.	I graduated from the University of Southern Mississippi in Hattiesburg,
16		Mississippi in 1978 with a Bachelor of Science Degree in Chemistry and
17		graduated from the University of Southern Mississippi in Long Beach,
18		Mississippi in 1988 with a Masters of Business Administration. My
19		employment with the Southern Company began in 1978 at Mississippi
20		Power's (MPC) Plant Daniel as a Plant Chemist. In 1982, I transferred to
21		MPC's Fuel Department as a Fuel Business Analyst. I was promoted in
22		1987 to Supervisor of Chemistry and Regulatory Compliance at Plant
23		Daniel. I was promoted to Supervisor of Coal Logistics with Southern
24		Company Fuel Services in Birmingham, Alabama in 1998. My
25		responsibilities included administering coal supply and transportation

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agreements and managing the coal inventory program for the Southern
 Electric System. I transferred to my current position as Fuel Manager for
 Gulf Power Company in 2003.

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Q. What are your duties as Fuel Manager for Gulf Power Company?

A. I manage the Company's fuel procurement, inventory, transportation,
budgeting, contract administration, and quality assurance programs to
ensure that the generating plants operated by Gulf Power are supplied
with an adequate quantity of fuel in a timely manner and at the lowest
practical cost. I also have responsibility for the administration of Gulf's
Intercompany Interchange Contract (IIC).

12

13 Q. What is the purpose of your testimony in this docket?

Α. The purpose of my testimony is to compare Gulf Power Company's 14 15 original projected fuel and net power transaction expense and purchased power capacity costs with current estimated/actual costs for the period 16 January 2011 through December 2011 and to summarize any noteworthy 17 18 developments at Gulf in these areas. The current estimated/actual costs consist of actual expenses for the period January 2011 through June 2011 19 and projected fuel and net power transaction costs for July 2011 through 20 21 December 2011. Projected capacity costs for July 2011 through December 2011 were reduced slightly to account for changes in capacity 22 payments under Gulf's purchase power agreements. It is also my intent to 23be available to answer questions that may arise among the parties to this 24

docket concerning Gulf Power Company's fuel and net power transaction
 expenses, and purchased power capacity costs.

- Q. During the period January 2011 through December 2011 how will Gulf
 Power Company's recoverable total fuel and net power transactions cost
 compare with the original cost projection?
- Gulf's currently projected recoverable total fuel and net power transactions Α. 7 cost for the period is \$597,743,941 which is \$23,340,144 or 4.06% above 8 the original projected amount of \$574,403,797. The resulting average fuel 9 cost is projected to be 4.7620 cents per kWh or 2.07% above the original 10 projection of 4.6655 cents per kWh. The higher total fuel expense for the 11 period is attributed to a combination of higher than projected fuel cost of 12 13 purchased power and lower fuel revenue from power sales. The higher average per unit fuel cost (cents per kWh) is attributed to a higher fuel cost 14 of generated power for the period. This current projection of fuel and net 15 purchased power transaction cost is captured in the exhibit to Witness 16 Dodd's testimony, Schedule E-1 B-1, Line 21. 17
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Q. During the period January 2011 through December 2011 how will Gulf
 Power Company's recoverable fuel cost of generated power compare with
 the original projection of fuel cost?

A. Gulf's currently projected recoverable fuel cost of generated power for the period is \$550,128,748 which is \$74,372,049 or 11.91% below the original projected amount of \$624,500,797. Total generation is expected to be 11,205,515,000 kWh compared to the original projected generation of 13,345,854,000 kWh or 16.04% below original projections. The resulting
 average fuel cost is expected to be 4.9094 cents per kWh or 4.92% above
 the original projected amount of 4.6794 cents per kWh. This current
 projection of fuel cost of system net generation is captured in the exhibit to
 Witness Dodd's testimony, Schedule E-1 B-1, Line 6.

- 6
- Q. What are the reasons for the difference between Gulf's original projection of
 the fuel cost of generated power and the current projection?

Α. 9 The lower total fuel expense is due to lower than originally projected quantity of generated power (kWh) offset somewhat by higher average per 10 unit fuel costs (cents/kWh). Delivered coal prices per MMBtu are projected 11 12 to be above original projections for the period due to a higher percentage of 13 contract coal in the coal supply mix and natural gas prices per MMBtu are projected to be below original projections for the period due to changes in 14 market fuel prices. The quantity of contract coal in the supply mix for the 15 period is expected to be above original projections due to a reduction in the 16 17 quantity of coal burned which has eliminated the need for market priced spot purchases for the period. Coal burn is lower due to reduced economic 18 19 dispatch of coal fired units relative to other sources of generation. Market 20 prices for natural gas for the period are expected to be lower than original projections. A higher projected supply of natural gas in the market has 21 22 driven the projected price lower and prices are expected to remain lower for the rest of the period. The quantity of natural gas burn is expected to be 23 above original projections in response to the lower market prices for natural 24 25 gas increasing economic dispatch of gas fired generation. The ability to

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change the mix of generating units operating to meet customer demand to a
 more heavily weighted natural gas mix has allowed Gulf to take advantage
 of lower natural gas prices.

- 4
- 5 Q How did the total projected fuel cost of system net generation compare to 6 the actual cost for the first six months of 2011?

The total fuel cost of system net generation for the first six months of 2011 7 Α. was \$254,583,875 which is \$35,079,035 or 12.11% lower than the 8 projection of \$289,662,910. On a fuel cost per kWh basis, the actual cost 9 was 4.86 cents per kWh, which is 0.83% higher than the projected cost of 10 11 4.82 cents per kWh. This higher cost of system generation on a cents per kWh basis is due to a combination of fuel cost in \$/MMBtu being 0.79% 12 higher than projected and heat rate (Btu/kWh) of the generating units 13 operating being 0.04% lower than projected. This information is found on 14 Schedule A-3 Period to Date of the June 2011 Monthly Fuel Filing. 15

- 16
- Q. How did the total projected cost of coal burned compare to the actual cost
 for the first six months of 2011?

A. The total cost of coal burned (including boiler lighter) for the first six months of 2011 was \$186,689,942 which is \$33,848,731 or 15.35% lower than the projection of \$220,538,673. On a fuel cost per kWh basis, the actual cost was 5.49 cents per kWh which is 7.23% higher than the projected cost of 5.12 cents per kWh. The lower than projected total cost of coal burned (including boiler lighter) is due to total MMBtu of coal burn being 19.27% below the estimated burn for the period. The higher per kWh cost of coal

fired generation is due to actual coal prices (including boiler lighter) being 1 4.99% higher than projected on a \$/MMBtu basis and the weighted average 2 heat rate (Btu/kWh) of the coal fired generating units operating being 2.20% 3 higher than projected. This information is found on Schedule A-3 Period to 4 Date of the June 2011 Monthly Fuel Filing. Gulf has fixed price coal 5 contracts in place for the period to limit price volatility and ensure reliability 6 of supply. Actual average prices for coal purchased during the period are 7 higher due to a change in the timing of contract shipments to Gulf's coal 8 fired generating plants in response to lower coal burn for the period. 9 Another factor contributing to the higher cost of coal fired generation 10(cents/kWh) is that weighted average coal unit heat rates are higher than 11 12 projected for the period. Generating unit heat rates have been impacted by the percentage of time these units operated at lower than projected loads. 13 When generating units operate at lower loads, unit efficiency is reduced. 14

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Q. How did the total projected cost of natural gas burned compare to the actual
 cost during the first six months of 2011?

Α. The total cost of natural gas burned for generation for the first six months of 18 2011 was \$67,484,255 which is \$1,325,207 or 1.93% lower than Gulf's 19 20 projection of \$68,809,462. The total cost of natural gas burned for generation is lower than projected due to the market price of natural gas 21 being lower than projected. Market prices for natural gas are lower due to 22 increased supply of natural gas in the market. On a cost per unit basis, the 2324 actual cost of gas fired generation was 3.70 cents per kWh which is 9.31% 25 lower than the projected cost of 4.08 cents per kWh. Actual natural gas

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prices were \$5.19 per MMBtu or 12.48% lower than the projected cost of
 \$5.93 per MMBtu. This information is found on Schedule A-3 Period to Date
 of the June 2011 Monthly Fuel Filing.

- 4
- 5 Q. For the period in question, what volume of natural gas was actually hedged 6 using a fixed price contract or instrument?

A. Gulf Power financially hedged 6,890,000 MMBtu of natural gas for the
period January 2011 through June 2011 using a combination of fixed price
financial swaps and options. This equates to 54.5% of the actual natural
gas burn for generation during the period of 12,646,305 MMBtu.

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Q. What types of hedging instruments were used by Gulf Power Company 12 13 and what type and volume of fuel was hedged by each type of instrument? Α. Natural gas was hedged using financial swaps that fixed the price of gas 14 15 to a certain price and options (collars) that established both a price ceiling 16 and price floor for each deal. The swaps settled against either a NYMEX 17 Last Day price or Gas Daily price. The options settled if the NYMEX Last Day price was outside the bounds of the collar. Only a small amount of the 18 option deals were settled during the period. The amount of gas hedged 19 for the period using financial swaps was 5,600,000 MMBtu and the 20 21 amount of gas hedged using options was 1,290,000 MMBtu.

22

Q. What was the actual total cost (e.g., fees, commission, option premiums,
 futures gains and losses, swap settlements) associated with each type of
 hedging instrument?

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A. No fees, commission, or option premiums were incurred. Gulf's gas
 hedging program generated a hedging expense related to settlements of
 \$6,833,824 for the period January through June 2011. This information is
 found on Schedule A-1, Period to Date, line 2 of the June 2011 Monthly
 Fuel Filing.

6

Q. During the period January 2011 through December 2011 how will Gulf
 Power Company's recoverable fuel cost of power sold compare with the
 original cost projection?

Α. Gulf's currently projected recoverable fuel cost and gains on power sales for 10 the period are \$(41,062,801) or 51.54% below the original projected amount 11 of \$(84,732,000). Total megawatt hours of power sales is expected to be 12 (1,691,312,815) kWh compared to the original projection of (1,963,232,000)13 kWh or 13.85% below projections. The resulting average fuel cost and 14 gains on power sales is expected to be 2.4279 cents per kWh or 43.75% 15 below the original projected amount of 4.3159 cents per kWh. This current 16 projection of fuel cost of power sold is captured in the exhibit to Witness 17 Dodd's testimony, Schedule E-1 B-1, Line 18. 18

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Q. What are the reasons for the difference between Gulf's original projection of
the fuel cost and gains on power sales and the current projection?
A. The lower total credit to fuel expense from power sales is attributed to a
lower quantity and lower price of power sales made than originally
projected. Lower marginal market prices for natural gas combined with a

25 higher percentage of natural gas fired generation in the generation fuel mix

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1		during the period have decreased the fuel reimbursement rate (cents/kWh)
2		for power sales.
3		
4	Q.	How did the total projected fuel cost of power sold compare to the actual
5		cost for the first six months of 2011?
6	Α.	The total fuel cost of power sold for the first six months of 2011 was
7		\$26,413,801 which is \$4,545,199 or 14.68% lower than our projection of
8		\$30,959,000. On a fuel cost per kWh basis, the actual cost was 1.9392
9		cents per kWh which is 52.05% below the projected cost of 4.0443 cents
10		per kWh. This information is found on Schedule A-1, Period to Date, line 17
11		of the June 2011 Monthly Fuel Filing.
12		
13	Q.	During the period January 2011 through December 2011 how will Gulf
14		Power Company's recoverable fuel cost of purchased power compare with
15		the original cost projection?
16	Α.	Gulf's currently projected recoverable fuel cost of purchased power for the
17		period is \$88,677,993 or 156.04% above the original projected amount of
18		\$34,635,000. The total amount of purchased power is expected to be
19		3,038,104,851 kWh compared to the original projection of 929,227,000 kWh
20		or 226.95% above projections. The resulting average fuel cost of
21		purchased power is expected to be 2.9189 cents per kWh or 21.69% below
22		the original projected amount of 3.7273 cents per kWh. This current
23		projection of fuel cost of purchased power is captured in the exhibit to
24		Witness Dodd's testimony, Schedule E-1 B-1, Line 13.
25		

1	Q.	What are the reasons for the difference between Gulf's original projection of
2		the fuel cost of purchased power and the current projection?
3	Α.	The higher total fuel cost of purchased power is attributed to Gulf
4		purchasing a greater amount of energy to supplement its own generation
5		to meet load demands. The lower projected price per kWh for purchased
6		power is due to Gulf's ability to obtain power from a lower cost gas fired
7		combined cycle unit under existing purchase power agreements.
8		
9	Q.	How did the total projected fuel cost of purchased power compare to the
10		actual cost for the first six months of 2011?
11	Α.	The total fuel cost of purchased power for the first six months of 2011 was
12		\$52,444,994 which is \$34,101,994 or 185.91% higher than our projection of
13		\$18,343,000. The higher than anticipated purchased power expense is due
14		to the actual quantity of purchases being 285.49% higher than projected.
15		Purchase power quantity is higher due to the lower price of available power
16		relative to Gulf's fuel cost of generated power making it the economic choice
17		for providing energy to the customer during certain periods of time. On a
18		fuel cost per kWh basis, the actual cost was 2.5579 cents per kWh which is
19		25.83% lower than the projected cost of 3.4487 cents per kWh. This
20		information is found on Schedule A-1, Period to Date, line 12 of the June
21		2011 Monthly Fuel Filing.
22		
23	Q.	Were there any other significant developments in Gulf's fuel procurement
24		program during the period?
25	A.	No.

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Q. Were Gulf Power's actions through June 30, 2011 to mitigate fuel and
 purchased power price volatility through implementation of its financial
 and/or physical hedging programs prudent?

A. Yes. Gulf's physical and financial fuel hedging programs have resulted in
more stable fuel prices. Over the long term, Gulf anticipates less volatile
future fuel costs than would have otherwise occurred if these programs
had not been utilized.

8

9 Q. Should Gulf's fuel and net power transactions cost for the period be
10 accepted as reasonable and prudent?

Yes. Gulf has followed its Risk Management Plan for Fuel Procurement in 11 Α. 12 securing the fuel supply for its electric generating plants. Gulf's coal supply program is based on a mixture of long-term contracts and spot 13 purchases at market prices. Coal suppliers are selected using procedures 14 that assure reliable coal supply, consistent quality, and competitive 15 delivered pricing. The terms and conditions of coal supply agreements 16 have been administered appropriately. Natural gas is purchased using 17 agreements that tie price to published market index schedules and is 18 19 transported using a combination of firm and interruptible gas transportation agreements. Natural gas storage is utilized to assure that 20natural gas is available during times when gas supply is curtailed or 21 22 unavailable. Gulf's fuel oil purchases were made from qualified vendors using an open bid process to assure competitive pricing and reliable 23 supply. Gulf makes sales of power when available and gets reimbursed at 24 the marginal cost of replacement fuel. This fuel reimbursement is credited 25

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back to the fuel cost recovery clause so that lower cost fuel purchases
made on behalf of Gulf's customers remain to the benefit of those
customers. Gulf purchases power when necessary to meet customer load
requirements and when the cost of purchased power is expected to be
less than the cost of system generation. The fuel cost of purchased power
is the lowest cost available in the market at the time of purchase to meet
Gulf's load requirements.

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Q. During the period January 2011 through December 2011, what is Gulf's
 projection of actual / estimated net purchased power capacity transactions
 and how does it compare with the company's original projection of net
 capacity transactions?

A. As shown on Line 4 of Schedule CCE-1b in the exhibit to Witness Dodd's
testimony, Gulf's total current net capacity payment projection for the
January 2011 through December 2011 recovery period is \$48,294,769.
Gulf's original projection for the period was \$50,039,244 and is shown on
Line 4 of Schedule CCE-1 filed September 1, 2010. The difference between
these projections is \$1,744,475 or 3.49% less than the original projection of
net capacity payments.

20

21 Q. How did the total projected net capacity transactions cost compare to the 22 actual cost for the first six months of 2011?

A. Actual net capacity payments during the first six months of 2011 were
 \$16,976,271 which is \$1,746,446 or 9.33% lower than projected for the
 period. The variance is due to timing differences between actual payments

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1		and projected payments under Gulf's purchase power agreements for the
2		period.
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4	Q.	Mr. Ball, does this complete your testimony?
5	Α.	Yes.
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AFFIDAVIT

STATE OF FLORIDA)) COUNTY OF ESCAMBIA) Docket No. 110001-EI

BEFORE me, the undersigned authority, personally appeared Herbert R. Ball, who being first duly sworn, deposes and says that he is the Fuel Manager for Gulf Power Company, a Florida corporation, that the foregoing is true and correct to the best of his knowledge, information and belief. He is personally known to me.

Sall Herbert R. Ball

Fuel Manager

Sworn to and subscribed before me this 24 day of July, 2011.

Notary Public, State of Florida at Large

(SEAL)



IN RE: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing was furnished by U.S. mail this 29th day of July, 2011, on the following:

John T. Burnett Dianne M. Triplett Progress Energy Service Co. P. O. Box 14042 St. Petersburg FL 33733-4042 john.burnett@pgnmail.com

Patrick K. Wiggins Post Office Drawer 1657 Tallahassee, FL 32302 wigglaw@gmail.com

Randy B. Miller White Springs Agricultural Chemicals PO Box 300 15483 Southeast 78th Street White Springs, FL 32096 <u>RMiller@pcsphosphate.com</u>

Paul Lewis, Jr. Progress Energy Florida, Inc. 106 E. College Ave., Ste. 800 Tallahassee FL 32301 paul.lewisjr@pgnmail.com

Vicki Kaufman Jon Moyle Keefe Anchors Gordon & Moyle PA 118 N. Gadsden St. Tallahassee, FL 32301 vkaufman@kagmlaw.com jmoyle@kagmlaw.com

Karen S. White, Staff Attorney AFLSA/JACL-ULGSC 139 Barnes Drive, Suite 1 Tyndall AFB, FL 32403-5319 karen.white@tyndall.af.mil John T. Butler, Esq. Senior Attorney Florida Power & Light Company 700 Universe Boulevard Juno Beach FL 33408-0420 john_butler@fpl.com

Paula K. Brown Tampa Electric Company P. O. Box 111 Tampa FL 33601 <u>Regdept@teccenergy.com</u>

James D. Beasley, Esq. J. Jeffry Wahlen Attorneys for Tampa Electric Co. Ausley & McMullen P. O. Box 391 Tallahassee FL 32302 <u>ibeasley@ausley.com</u>

Robert Scheffel Wright John T. LaVia, III Young Law Firm 225 S. Adams Street, Suite 200 Tallahassee FL 32301 swright@yvlaw.net

JR. Kelly P. Christensen C. Rehwinkel Associate Public Counsel Office of Public Counsel 111 West Madison Street, Rm. 812 Tallahassee, FL 32399- 1400 christensen.patty@leg.state.fl.us Rehwinkel.Charles@leg.state.fl.us Kelly.jr@leg.state.fl.us

Michael C. Barrett Div Of Economic Regulation FI Public Service Commission 2540 Shumard Oak Blvd Tallahassee, FI 32399-0850 mbarrett@psc.state.fl.us Jennifer Crawford, Sr. Attorney Office of General Counsel FL Public Service Commission 2540 Shumard Oak Boulevard Tallahassee FL 32399-0850 jcrawfor@psc.state.fl.us

Kenneth Hoffman Florida Power & Light Co. 215 S. Monroe Street, Ste. 810 Tallahassee FL 32301-1859 Ken.Hoffman@fpl.com

Mr. Thomas A. Geoffroy Florida Public Utilities Company PO Box 3395 West Palm Beach, FL 33402-3395 tgeoffroy@fpuc.com

Beth Keating Gunster, Yoakley & Stewart, P.A. 215 South Monroe St., Suite 618 Tallahassee, Florida 32301 bkeating@gunster.com

James W. Brew F. Alvin Taylor Brickfield, Burchette, et al., P.C. 1025 Thomas Jefferson St., NW Eighth Floor, West Tower Washington, DC 20007-5201 jbrew@bbrslaw.com ataylor@bbrslaw.com

Lisa Bennett Office of General Counsel FL Public Service Commission 2540 Shumard Oak Boulevard Tallahassee FL 32399-0850 <u>Ibennett@psc.state.fl.us</u>

JEFREY A. STONE Florida Bar No. 325953 RUSSELL A. BADDERS Florida Bar No. 007455 STEVEN R. GRIFFIN Florida Bar No. 0627569 BEGGS & LANE P. O. Box 12950 Pensacola FL 32591-2950 (850) 432-2451 Attorneys for Gulf Power Company

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