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October 9, 2015

VIA: ELECTRONIC FILING

Ms. Carlotta S. Stauffer **Commission Clerk** Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Fuel and Purchased Power Cost Recovery Clause with Generating Re: Performance Incentive Factor; FPSC Docket No. 150001-EI

Dear Ms. Stauffer:

Attached for filing in the above docket on behalf of Tampa Electric Company is the Rebuttal Testimony of J. Brent Caldwell.

Thank you for your assistance in connection with this matter.

Sincerely,

James D. Beasley

JDB/pp Attachment

All Parties of Record (w/attachment) cc:



BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 150001-EI

FUEL & PURCHASED POWER COST RECOVERY

AND

CAPACITY COST RECOVERY

REBUTTAL TESTIMONY

OF

J. BRENT CALDWELL

FILED: OCTOBER 9, 2015

1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		PREPARED REBUTTAL TESTIMONY
3		OF
4		J. BRENT CALDWELL
5		
6	Q.	Please state your name, address, occupation and employer.
7		
8	Α.	My name is J. Brent Caldwell. My business address is 702
9		N. Franklin Street, Tampa, Florida 33602. I am employed
10		by Tampa Electric Company ("Tampa Electric" or "company")
11		as Director, Fuel Planning and Services.
12		
13	Q.	Are you the same J. Brent Caldwell who submitted direct
14		testimony on behalf of Tampa Electric in this proceeding
15		on September 1, 2015?
16		
17	A.	Yes, I am.
18		
19	Q.	What is the purpose of your testimony?
20		
21	Α.	The purpose of my testimony is to respond to the
22		positions and recommendation of witnesses Daniel J.
23		Lawton and Tarik Noriega on behalf of the Office of
24		Public Counsel, which I refer to collectively as
25		"intervenor witnesses."

	I	
1	Q.	How is your rebuttal testimony organized?
2		
3	A.	I will first discuss witness Lawton's testimony and the
4		risks his recommendation would impose on our customers if
5		implemented. I will then address witness Noriega's
6		testimony, pointing out some errors in the manner in
7		which he has attempted to calculate hedging losses.
8		
9	Q.	What do the intervenor witnesses recommend?
10		
11	A.	They recommend the Commission discontinue natural gas
12		hedging activities and that the 2016 Risk Management plan
13		proposed by each investor-owned utility ("Companies") be
14		rejected.
15		
16	Q.	Do you believe their recommendations are appropriate?
17		
18	A.	No, I do not. As I stated in my direct testimony filed
19		September 1, 2015 in this proceeding, statements by the
20		Commission in its orders addressing financial hedging and
21		statements made by the Commission's Staff in their
22		hedging audits support the fact that the utilities hedge
23		using systematic and prudent methods, that consumers
24		benefit from the utilities' financial hedging activities,
25		and no changes need to be made to the manner in which

electric utilities conduct their financial hedging 1 Those orders and audit results are discussed 2 activities. on pages 24 through 28 of my direct testimony. 3 4 Do you believe the Florida utilities' programs for the 5 Q. financial hedging of natural 6 qas prices would be challenged if natural gas prices were rising? 7 8 It is very doubtful we would be seeing criticisms of No. 9 Α. financial hedging of natural gas prices if those prices 10 It is only because prices have declined 11 were rising. more than the prices built into the utilities' hedging 12 programs that we see opposition to the current hedging 13 It is important to put the issue in context. model. 14 All customers have benefitted from the decline of natural gas 15 The issue raised by intervenor witnesses is that prices. 16 customers haven't also received the difference between 17 the hedged prices and the lower market prices. That is a 18 natural consequence of a financial hedging program. 19 Had prices been rising over time, our hedging programs would 20 have protected customers from having to pay the amount by 21 which higher market prices exceeded the hedged prices. 2.2 23 What would have to happen for customers to receive the 24 0.

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added benefit of the difference between the hedge price

	1	
1		for natural gas and the lower market price?
2		
3	A.	The Commission would have to eliminate the existing
4		hedging plans, as urged by intervenor witnesses, along
5		with the fuel price volatility mitigation protections
6		they provide, and simply "hope" that natural gas prices
7		continue to decline. This would necessitate reliance
8		upon speculation about the future direction of natural
9		gas market prices - something studiously avoided in the
10		administration of the utilities' Commission supervised
11		hedging programs.
12		
13	Q.	Witness Lawton focuses on the "lost opportunity costs"
14		caused by hedging. For example, on page 7 of his
15		testimony he states:
16		However, when the sole purpose is to
17		mitigate price volatility, there is no
18		built in ability to capture any of the
19		benefits associated with the climbing fuel
20		prices on the hedged portion of natural
21		gas. (Page 7, lines 21-23)
22		
23		How do you respond?
24		
25	A.	The stated purpose for approving financial hedging plans
		4

is to mitigate natural gas price volatility and the cost 1 recovery factor volatility that goes with it. 2 The point to be made is that one cannot enjoy the price volatility 3 mitigation benefits of hedging, and at the same time enjoy 4 the "lost opportunity costs" that may result from the 5 operation of a non-speculative hedging program. 6 7 Witness Lawton concludes that the abundance of shale gas 8 Q. has changed natural gas market dynamics to the extent 9 that financial hedging of natural gas purchases will no 10 longer be needed. How do you respond? 11 12 Witness Lawton has discounted the history of natural gas 13 Α. There have been similar periods of natural gas pricing. 14 production growth and surplus such as the deepwater Gulf 15 of Mexico in the late 1990s and the promise of 16 an international bounty of liquefied natural gas (LNG) 17 in the early to mid-2000s. In both cases, natural gas 18 first, but, ultimately, 19 prices decreased at demand recovered and exceeded supply to the point that natural 20 gas prices spiked until new supply could restore balance. 21 I cannot say whether or not history will repeat itself 2.2 with non-conventional shale gas production; however, I 23 cannot be as certain as witness Lawton that the surplus 24 provided by shale gas is here for the foreseeable future. 25

Q. Are there any other key points about future natural gas 1 markets that will affect pricing, which witness Lawton 2 has omitted from his testimony? 3 4 Yes, I believe that witness Lawton also failed to give 5 Α. full consideration to the changing electric generation 6 mix in Florida and nationally. This changing generation 7 increases the demand for natural gas as coal-fired and 8 dual-fuel natural gas units with oil backup are replaced 9 with gas-only generation, and the U.S. nuclear fleet ages 10 toward retirement. This increasing reliance on natural 11 gas for electric generation not only puts upward pressure 12 on prices due to demand growth, but it also increases the 13 total cost impact and volatility of prices. Natural gas 14 is a bigger percentage of the electric generation cost, 15 and there is little to no diversity or fuel alternative 16 during periods of high demand or supply constraint. 17 18 the Commission previously considered opposition to 19 Q. Has the Commission approved natural gas financial hedging 20 programs of the investor owned electric utilities? 21 2.2 Yes, I provided an overview of the Commission's reviews 23 Α. of the utility hedging programs over the years, in my 24 projection testimony, filed in this 25 2016 docket on

1		September 1, 2015.
2		
3	Q.	Does a non-speculative risk management hedging program
4		reduce customers' exposure to price volatility?
5		
6	Α.	Yes, it does. Using a disciplined, methodical,
7		consistent natural gas financial hedging program ensures
8		that a portion of projected natural gas needs are being
9		hedged frequently, but never all at once. This provides
10		known future pricing that is a blend of future prices
11		acquired over a period of time.
12		
13	Q.	Has Tampa Electric's hedging program accomplished this?
14		
15	Α.	Yes. Measured over the history of Tampa Electric's
16		hedging program, the standard deviation of monthly market
17		prices of natural gas has been 43 percent. The standard
18		deviation of monthly hedged prices has been 30 percent.
19		This is a significant "smoothing" of the price of natural
20		gas used for the projection and true-up of the fuel cost
21		recovery factor.
22		
23	Q.	Does a non-speculative risk management hedging program
24		reduce annual fuel cost recovery factor volatility?
25		
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Α. Yes. When the price of natural gas is known for a 1 percentage of the projected year's natural gas supply, 2 the likelihood of а mid-course correction and 3 а significant over-recovery or under-recovery is 4 diminished. 5 6 agree with witness Lawton that the annual, 7 Q. Do you levelized fuel cost recovery factor with true-up and mid-8 course correction provide customers with enough price 9 volatility mitigation? 10 11 No. Hedging provides the benefit of price volatility 12 Α. mitigation to customers. A levelized fuel factor does not 13 mitigate price volatility. The annual fuel factor does 14 provide customers with some smoothing by levelizing the 15 cost recovery factor over a period of 12 months. However, 16 limit the potential for fuel costs 17 it. does not to increase or decrease. Customers are still responsible for 18 the full amount of costs, including price increases and 19 decreases over time. Any party may request a mid-course 20 correction if projected fuel costs increase or decrease 21 10 percent, compared the original by more than to 2.2 projections, so the fuel factor may be modified more 23 annually during times often than of hiqh price 24 volatility. Furthermore, all fuel costs are subject to a 25

final true-up to reflect actual costs incurred, which can 1 result in a greater change in the factor from period to 2 period, with unmitigated fuel price volatility. 3 4 Hedging fuel purchases is different from implementing a 5 levelized factor because non-speculative hedging 6 can limit the potential for changes in these costs. Once a 7 financial natural gas hedge is placed, the price of that 8 portion of the company's fuel purchases is fixed, and 9 customers are not exposed to the risk of a change in that 10 price or cost. Hedging provides the benefit of price 11 volatility mitigation to customers, while a levelized 12 fuel factor does not provide such protection. 13 14 If the utility natural gas financial hedging programs are 15 0. eliminated by Commission order, as recommended by witness 16 17 Lawton, how soon would the company be able to stop hedging? 18 19 The company would be able to cease purchasing any new 20 Α. 21 financial hedge positions for natural qas when it receives the Commission's order. The risk management 2.2 approved by the Commission in previous 23 plans years provide that Tampa Electric hedges natural gas up to 24 24

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company will

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existing hedges that were prudently implemented under 1 previous years' risk management plans, and those costs 2 should be recovered through the fuel clause. For example, 3 if the Commission were to order the utilities to cease 4 2016, then hedging effective January 1, the 5 hedges entered into during 2014 and 2015, under those years' 6 respective risk management plans, should be included in 7 the company's future fuel cost recovery factors. 8

Can you address OPC witness Noriega's statement 10 Q. that there \$11,866,048 difference Tampa 11 is а between hedging 12 Electric's reported losses and the losses supplied Tampa Electric's OPC's 13 in responses to discovery? 14

15

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Yes, I can. After we saw the calculated difference, Tampa 16 Α. Electric and OPC conferred in an effort to reconcile the 17 difference. We readily determined that both parties had 18 made good faith efforts to calculate and present Tampa 19 Electric's hedging losses, based on the information 20 We were also able to reconcile the available to them. 21 differences in our respective calculations and conclude 2.2 that, once reconciled, no differential existed between 23 the losses reported to the Commission and those supplied 24 in response to OPC's discovery requests. In short, Tampa 25

1	I	
1		Electric and OPC were able to informally resolve all of
2		their differences on this issue.
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4	Q.	Does this conclude your testimony?
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6	Α.	Yes, it does.
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