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FPSC - COMMISSION CLERK

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

DOCKET NO. 160001-EI

FUEL AND PURCHASED POWER COST
RECOVERY CLAUSE WITH GENERATING
PERFORMANCE INCENTIVE FACTOR.
_________________________________/

VOLUME 3

Pages 449 through 562

PROCEEDINGS:	HEARING
COMMISSIONERS PARTICIPATING:	CHAIRMAN JULIE I. BROWN COMMISSIONER LISA POLAK EDGAR COMMISSIONER ART GRAHAM COMMISSIONER RONALD A. BRISÉ COMMISSIONER JIMMY PATRONIS
DATE:	Wednesday, November 2, 2016
TIME:	Commenced at 9:54 a.m. Concluded at 10:26 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	LINDA BOLES, CRR, RPR Official FPSC Reporter (850) 413-6734
APPEARANCES:	(As heretofore noted.)

I N D E X

WITNESS

EXHIBITS

NUMBER:		ID.	ADMTD.
1	Comprehensive Exhibit List	551	552
2 through 114	(as identified on Comprehensive Exhibit List)	551	552
115	PCS Phosphate's 1st Set of Interrogatories to DEF No. 1, including Excel File Attachment PCS-A.xlsx	552	552

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Mark Anthony Cicchetti. My business address is 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850.

Q. By who are you employed, and what is your position?

A. I am the Chief of the Bureau of Finance, Tax, and Cost Recovery at the Florida Public Service Commission.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Florida Public Service Commission staff.

Q. Please provide a brief summary of your educational background and professional experience.

A. I received a Bachelor of Science (BS) degree in Business Administration in 1980 from Florida State University and a Master of Business Administration (MBA) in Finance in 1981, also from Florida State University.

I have over 30 years of experience in utility regulation including 20 years as a consultant specializing in public utility finance, economics, and regulation. For 10 years I was a Project Manager and Manager of the Tallahassee, Florida Office of C.H. Guernsey & Co. (Guernsey) where I provided consulting services including the provision of expert testimony. My project responsibilities for Guernsey included cost of equity analysis, credit and capital market analysis, merger and acquisition analysis, utility valuation, demand-side management and energy efficiency analysis, and financial integrity analysis. For ten years prior to joining Guernsey, I was President of Cicchetti & Co., a financial research and consulting firm, where I also provided consulting services including the provision of expert testimony. Topics I provided expert testimony on included the cost of equity, the overall cost of capital, industry structure, capital structure, corporate structure, regulatory theory, incentive regulation, implementation of the leverage formula for water and wastewater utilities, and uniform rates. Prior to joining Guernsey I was the Chief of Arbitrage Compliance for the Florida Division of Bond Finance and the Chief of Finance for the Florida Public Service Commission. I am currently the Secretary/Treasurer of the Society of Utility and Regulatory Financial Analysts (SURFA) and previously have served as President, Secretary/Treasurer, and a member of the Board of Directors of SURFA. A copy of my Curriculum Vitae is included as Exhibit (MAC-1).

II. TESTIMONY OVERVIEW

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

A. The purpose of my testimony is to present a history of hedging in Florida in an effort to provide an understanding of how and why we arrived at where we are today regarding hedging and to provide the Commission with an alternative to the current hedging protocol. I will also provide an overview of the hedging practices of other state commissions.

Q. **What materials did you review and rely on in preparing your testimony?**

A. In preparing my testimony, I reviewed all Commission orders regarding hedging dating back to 2001; all staff recommendations, reports, and presentations on hedging; the transcript of the Commission's workshop on hedging held in 2011; the hedging-related testimony and exhibits of the witnesses of Gulf Power Company, Duke Energy Florida, Florida Power & Light Company, and Tampa Electric Company (Companies) in 2015 and in the current 2016 docket; the Companies' Risk Management Plans for 2016 and 2017; the hedging-related discovery in the 2016 Fuel Docket and in Docket No. 160096-EI; the Florida Supreme Court Order No. SC-1595 in <u>Citizens v. Graham</u>; a paper titled, "*White Paper Regarding Utility Hedging Regulation*" by Michael Gettings, prepared for the Washington Utilities and Transportation Commission, July 2015; and the article "*Hedging Under*

Scrutiny" by Julie Ryan and Julie Leiberman published by Public Utilities Fortnightly in 2012.

III. HISTORY OF FINANCIAL FUEL HEDGING IN FLORIDA

Q. When did Florida investor-owned electric utilities begin engaging in financial hedging of fuel costs?

A. In 1990, the New York Mercantile Exchange (NYMEX) introduced a natural gas futures contract and in 1992 the NYMEX introduced a natural gas options contract. Prior to that time, there were no widespread exchange-traded financial derivative products available to directly and effectively hedge natural gas prices. Also, prior to 1990, coal was a much more prevalent fuel source for electric generation. Coal was purchased through relatively fixed-cost, long-term contracts and its relatively stable price made financial hedging less necessary. Also, prior to 1999, natural gas prices were relatively low and stable. Exhibit (MAC-2) shows the monthly Henry Hub spot price of natural gas (Dollars per million Btu) for the period 1997 to 2016.

The market price of natural gas increased significantly between March 1999 and March 2001 and during that time Florida Power & Light Company (FPL) responded, in part, to the increasing market price of natural gas with limited financial hedging. Florida Power Corporation (FPC) (the predecessor company to Duke Energy Florida, LLC), Gulf Power Company (GPC), and Tampa Electric Company (TECO) began financial hedging in 2002.

Q. When did the Florida Public Service Commission officially first address financial hedging of fuel costs?

A. The Commission officially first addressed fuel hedging in the 2001 Fuel Docket, Docket No. 010001-EI. On September 11, 2001, the Commission issued Order No. PSC-01-1829-PCO-EI establishing issues for resolution in Docket No. 010001-EI that included issues directly related to fuel hedging.[1] On November 2, 2001, the Office of Public Counsel (OPC) filed a motion to defer consideration of the hedging-related issues listed in that Order to allow the parties additional time to explore those issues. By Order No. PSC-01-2273-PHO-EI,[2] OPC's motion was granted. The deferred issues listed in Order No. PSC-01-1829-PCO-EI were:

ISSUE 11: Has each investor-owned electric utility taken reasonable steps to manage the risks associated with its fuel transactions through the use of physical and financial hedging practices?

ISSUE 12: What is the appropriate regulatory treatment for gains and losses from hedging an investor-owned electric utility's fuel transactions through futures contracts?

ISSUE 13: What is the appropriate regulatory treatment for premiums received and paid for hedging an investor-owned electric utility's fuel transactions through options contracts?

ISSUE 14: What is the appropriate regulatory treatment for the transaction costs associated with an investor-owned electric utility hedging its fuel transactions?

ISSUE 18A: For the period March 1999 to March 2001, did FPL take reasonable steps to manage the risk associated with changes in natural gas prices?

ISSUE 19D: For the period March 1999 to March 2001, did FPC take reasonable steps to manage the risk associated with changes in natural gas prices?

Q. What procedures did the Commission use to address the deferred hedging issues?

A. The Commission directed staff to open a new docket to address the six deferred hedging issues and staff established Docket No. 011605-EI on November 27, 2001. Staff filed individual recommendations to address Issues 18A, relating to FPL, and 19D, relating to FPC,

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[1] Order No. PSC-01-1829-PCO-EI, issued September 11, 2001, in Docket No. 010001-EI, *In re: Fuel and purchased power cost recovery clause and generating performance incentive factor*.

[2] Order No. PSC-01-2273-PCO-EI, issued November 19, 2001, in Docket No. 010001-EI, In re: *Fuel and purchased power cost recovery clause and generating performance incentive factor*.

on May 9, 2002, and June 6, 2002, respectively. Subsequently, the Commission issued Order Nos. PSC-02-0793-PAA-EI and PSC-02-0919-PAA-EI resolving Issues 18A and 19D, respectively.[3,4] Regarding the remaining issues, the parties engaged in settlement discussions and presented the Commission with a Proposed Resolution of Issues which the Commission approved by Order No. PSC-02-1484-FOF-EI.[5]

Q. What led the Commission to address the hedging issues cited above?

A. The market price of natural gas changed substantially from March 1999 to March 2001. The monthly average price of natural gas increased from $1.70 per 1000 cubic feet (MCF) in March 1999 to $8.06 per MCF in January 2001. By March 2001, the price dropped to $5.15 MCF.

In March 2001, the Commission granted FPC's petition for a mid-course correction to its fuel and purchased power cost recovery factors (factors) to collect a $29.4 million actual under-recovery for 2000 and a projected $73.0 million under-recovery for 2001. In April 2001, the Commission granted FPL's petition for a mid-course correction to its fuel and purchased power cost recovery factors to collect an actual $76.8 million under-recovery for 2000 and a projected $431.5 million under-recovery for 2001.

Although the Commission approved FPC's and FPL's petitions for mid-course correction for their factors, the Commission did not state whether FPC and FPL had prudently incurred the incremental costs. The Commission indicated that any party or the Commission staff could raise issues regarding the prudence of the incremental costs, if necessary, at the hearing scheduled in Docket No. 010001-EI, commencing November 20, 2001.

During the discovery process leading to the November 2001 hearing, staff reviewed

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[3] Order No. PSC-02-0793-PAA-EI, issued June 11, 2002, in Docket No. 011605-EI, *In re: Review of investor-owned electric utilities' risk management policies and procedures*.

[4] Order No. PSC-02-0919-PAA-EI, issued July 8, 2002, in Docket No. 011605-EI, *In re: Review of investor-owned electric utilities' risk management policies and procedures*.

[5] Order No. PSC-02-1484-FOF-EI, issued October 10, 2002, in Docket No. 011605-EI, *In re: Review of investor-owned electric utilities' risk management policies and procedures*.

information that indicated FPL and FPC may not have reacted sufficiently to the price signals that the natural gas commodity market experienced from March 1999 to March 2001. Consequently, as described above, the Commission ultimately directed staff to open a new docket to address the hedging issues and staff established Docket No. 011605-EI.[6]

Q. What were the Commission's findings in Docket No. 011605-EI?

A. Regarding FPL's and FPC's prudence in managing the risks associated with changes in natural gas prices, the Commission found that FPL and FPC both reasonably managed the risks associated with changes in natural gas prices for the period March 1999 through March 2001.[7,8]

Q. What steps did FPL and FPC take to manage the risks associated with changes in natural gas prices?

A. To mitigate the risks associated with changes in natural gas prices, FPL and FPC increased production at generation units that did not burn natural gas and utilized the fuel-switching capabilities of several generating units to burn oil instead of natural gas. The staff noted that FPL also engaged in two types of wholesale energy transactions to mitigate its purchased power costs and engaged in physical hedging and limited financial hedging to manage the risks associated with the changes in fuel prices.

Q. What were the Commission's findings regarding the remaining issues in Docket No. 011605-EI?

A. Regarding the remaining issues, the Commission approved a Proposed Resolution of Issues that resolved the remaining issues in the docket.[9] The Proposed Resolution of Issues

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[6] See Staff Recommendation, dated May 9, 2002, in Docket No. 011605-EI.

[7] Order No. PSC-02-0793-PAA-EI, issued June 11, 2002, in Docket No. 011605-EI, *In re: Review of investor-owned electric utilities' risk management policies and procedures*, at p. 5.

[8] Order No. PSC-02-0919-PAA-EI, issued July 8, 2002, in Docket No. 011605-EI, *In re: Review of investor-owned electric utilities' risk management policies and procedures*, at p. 6.

[9] Order No. PSC-02-1484-FOF-EI, issued October 30, 2002, in Docket No. 011605-EI, In *re: Review of investor-owned electric utilities' risk management policies and procedures*.

was signed and supported by FPL, FPC, TECO, the Florida Industrial Power Users Group, and OPC. GPC agreed to the settlement at the hearing based upon a modification made during the hearing. The Proposed Resolution of Issues was comprised of seven components and established the framework for fuel hedging that the Commission and the parties largely continue to follow. In 2008, in response to petitions filed by FPL, the Commission modified Order No. PSC-02-1484-FOF-EI (2002 Hedging Order) for clarification.

Q. What were the components of the Proposed Resolution of Issues?

A. The 2002 Hedging Order, included the components of the Proposed Resolution of Issues which are attached as Exhibit (MAC-3). In summary, the seven components of the resolution of issues state: (1) each investor-owned electric utility recognizes the importance of managing price volatility in the fuel and purchased power it purchases to provide electric service to its customers; (2) each investor-owned electric utility will submit a risk management plan for fuel procurement at the time of its projection filing in the fuel and purchased power cost recovery docket each year; (3) each investor-owned electric utility shall be authorized to charge/credit to the fuel and purchased power cost recovery clause its non-speculative, prudently-incurred commodity costs and gains and losses associated with financial and/or physical hedging transactions; (4) each investor-owned electric utility may recover through the fuel and purchased power cost recovery clause prudently-incurred incremental operating and maintenance expenses incurred for the purpose of initiating and/or maintaining a new or expanded non-speculative financial and/or physical hedging program designed to mitigate fuel and purchased power price volatility for its retail customers; (5) each investor-owned utility shall provide, as part of its final true-up filing in the fuel and purchased power cost recovery docket, the volumes of fuel hedged, the types of hedges utilized, the average period of each hedge, and the actual costs of the hedges; (6) no party shall seek approval of a hedging incentive program earlier than the time of its projection filing for the

2004 fuel and purchased power cost recovery period, and; (7) the proposed resolution may be executed in counterparts.[10]

Q. What modifications were made to the Hedging Order in 2008?

A. The 2002 Hedging Order did not provide, with specificity, the time period for which prudence would be established nor did it require the necessary information for making a prudence determination. Order No. PSC-08-0316-PAA-EI specified that the four largest investor-owned electric utilities would file a Hedging Information Report by August 15 of each year detailing their current year hedging transactions during the months of January through July of that current year.[11] That modification to the 2002 Hedging Order facilitated the Commission's ability to determine prudence each year in the annual fuel clause hearing by ensuring the Commission had the necessary information for each year to make such a determination.

On August 5, 2008, FPL filed a petition for approval of Hedging Order Clarification Guidelines. FPL proposed the Hedging Order Clarification Guidelines in response to asymmetric reactions of certain stakeholders to fuel hedging gains and losses. In its petition FPL stated:

> When the Commission approved the 2002 Hedging Resolution, support for hedging was strong and consistent among the stakeholders. Unfortunately, the reaction of certain stakeholders over the ensuing years has not been symmetric when hedging programs show gains and when they show losses. Support for hedging has generally been strong during periods of rising fuel prices, when hedging programs are showing gains, but has

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[10] Order No. PSC-02-1484-FOF-EI at pp. 5-7.

[11] Order No. PSC-08-0316-PAA-EI, issued May 14, 2008, in Docket No. 080001-EI, In *re: Fuel and purchased power cost recovery clause and generating performance incentive factor*.

> waned when prices are falling and hedging programs are showing losses. IOU shareholders receive no special benefit or reward when hedging programs result in gains, but this observed asymmetry raises the specter that shareholders might be exposed to risks of non-recovery when hedging programs result in losses. This imbalance of risks and rewards can increase the perceived financial risk of the IOU's and ultimately increase their cost of capital.
>
> The Hedging Guidelines are designed to mitigate against this asymmetry by reaffirming and clarifying the Commission's support for hedging as an appropriate means of managing the impacts of fuel price volatility.[12]

By Order No. PSC-08-0667-PAA-EI, the Commission approved the Hedging Order Guidelines proposed by FPL.[13] In its order, the Commission stated

> By approving FPL's proposed guidelines, we demonstrate our support for hedging. We retain our discretion to determine the prudence of hedging results and acknowledge that the guidelines do not bind us in our review of a utility's hedging practices.

Between 2009 and 2015, no specific hedging-related issues were addressed in the fuel cost recovery dockets. In 2015, as part of the Fuel and Purchased Power Adjustment and Generating Performance Factor Clause (Fuel Docket) proceedings, testimony and other evidence was presented on hedging and hedging-related issues.

Q. What were the hedging and hedging related issues addressed in the 2015 Fuel

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[12] Petition of Florida Power & Light Company for approval of Hedging Guidelines and For Leave to Withdraw its January 31, 2008 VMM Petition, Docket No. 080001-EI, at p. 3.

[13] Order No. PSC-08-0667-PAA-EI, issued October 8, 2008, in Docket No. 080001-EI, In *re: Fuel and purchased power cost recovery clause and generating performance incentive factor*, at p. 12.

Docket?

A. As stated in Order No. PSC-15-0586-FOF-EI,[14] the issues addressed were: (1) the significant opportunity costs of hedging programs that IOUs incurred as part of fuel costs paid by customers; (2) whether the volatility of natural gas prices has declined to the point where hedging is no longer effective or necessary; and (3) whether conditions in the natural gas market are stable and eliminate the need for hedging.

Q. What did the Commission conclude based on the hearing in the 2015 Fuel Docket?

A. The Commission decided to allow hedging to continue and directed staff and the parties to explore possible changes to the current hedging protocol. Order No. PSC-15-0586-FOF-EI stated:

> Our decision to continue hedging at this time is based on the evidence presented in this record which in large part consists of arguments to either completely eliminate hedging or to continue the procedures in place at this time. There was no written testimony from any party and very limited cross-examination on possible changes to the manner in which the IOUs conduct natural gas financial hedging activities or alternatives to hedging: cost sharing of hedging gains and losses between the IOUs and ratepayers, alternative accounting treatment for recovery of gains and losses (VMM program), or imposing limits on the percentage of natural gas purchases hedged. All witnesses agreed that any changes to the hedging protocol should be prospective and that the current hedges should be

[14] Order No. PSC-15-0586-FOF-EI, issued December 23, 2015, in Docket No. 150001-EI, *In re: Fuel and purchased power cost recovery clause and generating performance incentive factor*.

> allowed to terminate on their original contract dates. Notwithstanding our decision on hedging, we recognize that the cost of this program is significant by any measure for each Florida IOU and deserves further analysis. Therefore, we direct our staff, in conjunction with the parties to this docket, to explore possible changes to the current hedging protocol that will minimize potential losses to customers.[15]

Q. Did the Commission staff and the parties explore possible changes to the current hedging protocol?

A. Yes. On January 25, 2016, staff held an informal, noticed meeting with interested parties to discuss options and procedures for possible changes to the current hedging protocol to minimize potential losses to customers. Representatives from DEF, FPL, TECO, and GPC participated in the meeting. Staff also conducted discovery.

On April 22, 2016, FPL, TECO, and Gulf (IOUs) filed a joint petition in Docket No. 160096-EI seeking approval of modifications to their respective Risk Management Plans. DEF joined in the petition but stated it had the latitude to make the changes agreed to by the IOUs without modifying its current plan. The IOUs' proposed modifications were company-specific and each proposed to: (1) reduce their respective annual maximum percentage of fuel purchases targeted for hedges; and (2) reduce the period of time over which hedges may be placed pursuant to each respective Risk Management Plan.

Q. Did the Commission approve the IOUs' petition to modify their respective Risk Management Plans?

A. Yes. The Commission approved the IOUs' petition in Order No. PSC-16-0247-PAA-

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[15] Order No. PSC-15-0586-FOF-EI, issued December 23, 2015, in Docket No. 150001-EI, *In re: Fuel and purchased power cost recovery clause and generating performance incentive factor*, at p. 9.

EI.[16] In that order the Commission stated:

> This reduction in the percentage of natural gas hedged is a step in the right direction. However, we continue to be concerned about this issue and the high costs experienced by electric ratepayers for natural gas in excess of the market price. We urge the our (sic) staff, the investor-owned utilities, and the parties to provide us with other evidence-based options to further limit customer exposure to risks of hedging in the forthcoming fuel cost recovery docket, Docket No. 160001-EI, scheduled for November of this year.

Q. Was Order No. PSC-16-0247-PAA-EI protested?

A. Yes. On July 15, 2016, OPC filed a timely protest of Order No. PSC-16-0247-PAA-EI and requested an evidentiary hearing.[17] By Order No. PSC-16-0301-PCO-EI, Commissioner Graham, as Prehearing Officer, consolidated Docket No. 160096-EI into the 2016 Fuel Docket, Docket No. 160001-EI, for all purposes.[18]

On September 20, 2016, staff and the parties held the first issue identification meeting for Docket No. 160001-EI, and the following two hedging-related issues were agreed to by all parties:

<u>Issue 1A</u>: Is it in the consumers' best interest for the utilities to continue natural gas financial hedging activities?

<u>ISSUE 1B</u>: What changes, if any, should be made to the manner in which electric utilities

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[16] Order No. PSC-16-0247-PAA-EI, issued June 27, 2016, in Docket No. 160096-EI, *In re: Joint petition for approval of modifications to risk management plans by Duke Energy Florida, Florida Power & Light Company, Gulf Power Company and Tampa Electric Company*, at p. 7.

[17] See Petition Protesting & Requesting Evidentiary Hearing On The Proposed Agency Action, filed July 15, 2016, in Docket No. 160096-EI, *In re: Joint petition for approval of modifications to risk management plans by Duke Energy Florida, Florida Power & Light Company, Gulf Power Company and Tampa Electric Company.*

[18] Order No. PSC-16-0301-PCO-EI, issued July 28, 2016, in Docket No. 160096-EI, *In re: Joint petition for approval of modifications to risk management plans by Duke Energy Florida, Florida Power & Light Company, Gulf Power Company and Tampa Electric Company.*

conduct their natural gas financial hedging activities?

IV. ALTERNATIVES TO THE CURRENT HEDGING PROTOCOL

Q. As urged by the Commission in Order No. PSC-16-0247-PAA-EI, has the staff explored other evidence-based options to limit customer exposure to the risks of hedging?

A. Yes. While conducting research regarding financial hedging of fuel costs by regulated utilities, staff became aware of risk-responsive hedge strategies that rely on the principles of quantitative finance to provide an effective framework for robust hedge practices. Analysis of the risk-responsive hedging strategies indicated they are superior to the typical targeted-volume approach generally practiced by regulated investor-owned utilities and should help minimize potential losses to customers. Consequently, staff retained an expert, Michael Gettings, to provide testimony regarding risk-responsive hedging strategies in this docket. Mr. Gettings testimony presents a hedging framework for the Commission to consider as an alternative to the current hedging protocol.

Q. If the Commission were to adopt the approach recommended by Mr. Gettings, could the approach be implemented in 2017?

A. Possibly. It will take time for the IOUs to familiarize themselves with the concepts, to acquire the necessary resources, and to formulate strategies. However, if it is not feasible to implement a risk-responsive hedging strategy as soon as 2017, I recommend the Commission implement, in 2017, the modifications requested in Docket No. 160096-EI by the IOUs to their respective 2017 Risk Management Plans to: (1) reduce their respective annual maximum percentage of fuel purchases targeted for hedges; and (2) reduce the period of time over which hedges may be placed.

I also recommend that beginning April 30, 2017, the Commission require the IOUs to develop and provide contemporaneous weekly risk measurement and monitoring, from the customers' perspective, to be reported quarterly as outlined by Michael Gettings in his direct testimony and shown on Exhibit (MAG-2).

Q. Why do you recommend the Commission implement, for 2017, the modifications requested by the IOUs to their respective Risk Management Plans in Docket No. 160096-EI and require the IOUs provide contemporaneous weekly risk measurement and monitoring, from the customers' perspective, as outlined by Michael Gettings in his direct testimony?

A. If the IOUs cannot implement a risk-responsive hedging protocol in 2017, I recommend 2017 be used as a transition year with full implementation in 2018. I recommend that the modifications requested by the IOUs to their respective Risk Management Plans in Docket No. 160096-EI be implemented in 2017. Those modifications can reduce potential losses to be recovered from the customers compared to the current hedging protocol. I do not recommend hedging be eliminated. Hedging is beneficial because it reduces customer pain when prices spike thereby creating value for customers. Customers derive greater value from upside cost mitigation than they forego from hedge losses because hedge losses tend to occur when prices are declining. Natural gas prices are lognormally distributed. That means the magnitude of significant cost increases tends to be much greater than the magnitude of significant cost decreases.

Requiring the IOUs to provide contemporaneous weekly risk measurement and monitoring, from the customers' perspective, as outlined by Michael Gettings in his direct testimony, will allow the IOUs to develop a more robust structure for hedging strategies while not being overly prescriptive. Using more robust quantitative tools, deployed in a risk-responsive fashion, should reduce customer costs relative to the volume-targeted hedging currently employed by the IOUs.

Q. Do the IOUs 2017 Risk Management Plans reflect the changes proposed by the

IOUs in their petition in Docket No. 160096-EI?

A. GPC's Risk Management Plan reflects the modifications proposed in Docket No. 160096-EI. FPL's, DEF's and TECO's Risk Management Plans do not reflect the modifications proposed in Docket No. 160096-EI.

V. HEDGING PRACTICES OF OTHER STATE COMMISSIONS

Q. Have you reviewed research regarding the hedging practices of other state commissions?

A. Yes. In June 2016, the Commission's Division of Industry Development and Market Analysis (IDM) conducted a survey, through the National Association of Regulatory Utility Commissioners, to obtain current information regarding the hedging practices of other state commissions. Twelve states responded. Consistent with other research regarding state commission hedging practices, there was a wide array of responses. Approaches varied from encouraging utilities to hedge to ending hedging programs. Exhibit (MAC-4) is a summary of the results of IDM's survey.

In a paper published by Public Utilities Fortnightly in 2012 titled "Hedging Under Scrutiny," authors, Julie Ryan and Julie Lieberman of Concentric Energy Advisors cited a 2008 survey conducted by the National Regulatory Research Institute and a 2009 survey conducted by the American Gas Association that indicated most state commissions either supported or were neutral to hedging.[19] The article went on to describe how various state commissions are re-assessing hedging practices and how in some cases hedging programs have been scrutinized and continued without modification, while in other cases, hedging programs have been targeted for additional review or have been suspended. One relevant conclusion of the article was:

> One benefit arising from the increased focus on utility hedging

[19] Julie Ryan and Julie Lieberman, "Hedging Under Scrutiny," *Public Utilities Fortnightly*, Volume No. 150, No.2, February 2012, P.12.

is that regulators and stakeholders have grown increasingly sophisticated about commodity markets and hedging, and some might support more complex programs in the future. However, the more discretionary a program design, the more critical decisional documentation and transparent processes become. Further, there must be rigor and consistency in how hedging is adjusted in different market price environments. It will be important in the design and approval stage that the hedging program has clear triggers for when hedging decisions will be executed. During the implementation stage, it will be important for utilities to document information that was known to them at the time hedges were transacted to demonstrate that reasonable actions were taken, consistent with program design.

A copy of the article "Hedging Under Scrutiny" is attached as Exhibit (MAC-5).

Q. Does this conclude your testimony?

A. Yes.

DIRECT TESTIMONY

OF

TARIK NORIEGA

On Behalf of the Office of Public Counsel

Before the

Florida Public Service Commission

Docket No. 160001-EI

I. EDUCATIONAL BACKGROUND AND EXPERIENCE

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Tarik Noriega. My business address is 111 W. Madison St., Suite 812, Tallahassee, FL 32399-1300.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Office of Public Counsel ("OPC") as an Economist.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I graduated from the University of Central Florida with a Bachelor of Arts ("B.A.") degree in Economics in 1992. I also earned a Master of Arts in Applied Economics ("M.A.A.E.") degree from the University of Central Florida in 1994.

Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE.

A. I have nearly 20 years of experience as an Economist and Policy Analyst. Between

1996 and 2012, I was employed by the Florida Public Service Commission ("PSC" or "Commission"), the Florida House of Representatives, and the Florida Department of Revenue. Since 2012, I have been working for OPC, where I provide analysis and technical support in rate cases and other docketed and undocketed matters before the PSC on behalf of Florida's utility customers.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN PROCEEDINGS BEFORE THE COMMISSION?

A. Yes, I provided testimony in Docket No. 150001-EI, which was the 2015 Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor Docket ("Fuel Adjustment Clause" or "Fuel Docket").

II. <u>TESTIMONY OVERVIEW</u>

Q. ON WHOSE BEHALF ARE YOU FILING TESTIMONY IN THIS PROCEEDING?

A. I am testifying on behalf of OPC and the customers served by the four largest Florida investor-owned electric utilities ("IOUs" or "Companies").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony in this proceeding is to provide factual testimony related to the history of the fuel clause, mid-course corrections, and hedging programs. I also provide the results of the IOUs' hedging programs since 2002. Another OPC witness, Mr. Daniel J. Lawton, addresses some of the economic and regulatory policy issues surrounding the Companies' proposals to continue their natural gas financial hedging programs, as described in their 2017 Risk Management Plans. In addition, Mr. Lawton's testimony addresses the potential impacts of the Companies' hedging proposals on consumers, if approved by the Commission.

Q. WHAT MATERIALS DID YOU REVIEW AND RELY UPON FOR YOUR TESTIMONY?

A. I reviewed the following materials for this year's Fuel Docket: (1) my 2015 Fuel Docket testimony and supporting documentation; (2) past hedging true-up filings with the PSC in the Fuel Adjustment Clause by Duke Energy Florida ("Duke"), Florida Power & Light Company ("FPL"), Gulf Power Company ("Gulf"), and Tampa Electric Company ("TECO"); (3) these Companies' discovery responses related to hedging; (4) prior Commission Fuel Adjustment Clause orders and hedging orders; and (5) other information available in the public domain. I did not review any discovery responses or past hedging filings by Florida Public Utilities Company ("FPUC") because that utility does not hedge natural gas. When relying on various sources, I have referenced such sources in my testimony and/or attached these sources as Exhibits.

Q. WHAT IS THE PERIOD THAT YOU REVIEWED IN EVALUATING THE COMPANIES' NATURAL GAS HEDGING FILINGS?

A. I reviewed data for calendar years 2002 through 2017. The Companies have provided actual numbers through July 31, 2016 and projected numbers thereafter.

Q. DO YOU SPONSOR ANY EXHIBITS IN SUPPORT OF YOUR TESTIMONY?

A. Yes, I am sponsoring three Exhibits. Exhibit No. ____ (TN-1) includes my résumé and is titled "Résumé of Tarik Noriega". Exhibit No. ____ (TN-2) includes the actual hedging program results and is titled "IOU Natural Gas Hedging Gains/(Losses) From 2002-2015". Exhibit No. ____ (TN-3) includes discovery responses from the Companies and is titled "IOU Discovery Responses".

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. In Section III of my testimony, I address the history of the Fuel Adjustment Clause in Florida, including a brief overview of mid-course corrections.

Section IV provides a general overview of fuel price hedging and the PSC's 2002 and 2008 Hedging Orders.

Section V addresses my observations regarding the IOUs' natural gas hedging gains and losses since 2002, natural gas price trends, and recent IOU hedging program projections.

Section VI provides my conclusion.

III. FUEL ADJUSTMENT CLAUSE BACKGROUND

Q. WHAT IS THE FUEL ADJUSTMENT CLAUSE?

A. The Fuel Adjustment Clause is a mechanism used by the Commission that allows the IOUs to recover "[p]rudently incurred fossil fuel-related expenses...."[1]

The origin, purpose, and history of the Fuel Adjustment Clause are thoroughly discussed in two Commission orders: Order No. 6357, issued November 26, 1974, in Docket No. 74680-CI, In re: General Investigation of Fuel Adjustment Clauses of Electric Companies; and Order No. PSC-11-0080-PAA-EI, issued January 31, 2011, in Docket No. 100404-EI, In re: Petition by Florida Power & Light Company to Recover Scherer Unit 4 Turbine Upgrade Costs Through Environmental Cost Recovery Clause or Fuel Cost Recovery Clause. Order No. 11-0080 summarized the Fuel Adjustment Clause as follows:

> The fuel [adjustment] clause is a regulatory tool designed to pass through to utility customers the costs associated with fuel purchases. The purpose is to prevent regulatory lag, which occurs when a utility incurs expenses but is not allowed to collect offsetting revenues until the regulatory body approves cost recovery. Regulatory lag has historically been a problem for utilities because of the volatility of fuel costs. ... Different states have addressed volatile fuel costs and the problem of regulatory lag in differing ways. Several jurisdictions, like Florida, have allowed recovery of fuel costs in a fuel adjustment clause, and in Florida the implementation of the fuel clause has changed and developed over the years.[2]

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[1] Order No. 14546, issued July 8, 1985, in Docket No. 850001-EI-B, In re: Cost Recovery Methods for Fuel-Related Expenses, p. 2.

[2] Order No. PSC-11-0080-PAA-EI, issued January 31, 2011, in Docket No. 100404-EI, In re: Petition by Florida Power & Light Company to Recover Scherer Unit 4 Turbine Upgrade Costs Through Environmental Cost Recovery Clause or Fuel Cost Recovery Clause, p. 6. *See also* footnote No. 15 of this Order for an additional description of the purpose of the Fuel Adjustment Clause, p. 8.

Q. ARE UTILITIES ALLOWED TO PROFIT ON THE FUEL COSTS RECOVERED THROUGH THE FUEL ADJUSTMENT CLAUSE?

A. No. As recognized in Order No. 6357, issued in 1974,"[i]t should be emphasized that a utility does not make a profit on its fuel costs."[3]

Q. WHEN DID THE COMMISSION BEGIN AUTHORIZING FUEL COST RECOVERY?

A. The practice of allowing cost recovery through a fuel adjustment mechanism began in the mid-1920s, predating the Commission's jurisdiction over regulated electric utilities, and has evolved over the past nine decades.[4]

Q. PLEASE DESCRIBE THE EVOLUTION OF THE FUEL COST RECOVERY PROCESS OVER TIME.

A. Utilities benefited from a monthly fuel adjustment mechanism from 1925 to 1951, prior to the PSC's oversight of regulated electric utilities. After the Legislature granted the Commission jurisdiction over regulated electric utilities in 1951, the utilities applied a Commission-approved formula and placed the resulting fuel charge on customers' bills. The Commission staff performed some auditing functions; however, no formal public hearing was held.[5]

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[3] Order No. 6357, issued November 26, 1974, in Docket No. 74680-CI, In re: General Investigation of Fuel Adjustment Clauses of Electric Companies, p. 2.

[4] *See* Order No. 6357 at 2; *see also* Order No. PSC-11-0080-PAA-EI at 6.

[5] Order No. PSC-11-0080-PAA-EI at 6.

That fuel adjustment mechanism changed in 1974 when customers became increasingly concerned over increased fuel charges as a result of the Organization of Petroleum Exporting Countries' ("OPEC's") oil embargo, which substantially increased the cost of oil.[6] Following an Attorney General Opinion which stated "that the practice of allowing changes in the fuel adjustment charges without a public hearing was illegal under Florida law…." (*See* 74 Op. Att'y. Gen. Fla. 309 (1974)), the Commission held its first fuel adjustment clause hearing.[7] At this hearing, a stipulation was approved that provided for a monthly hearing for all fuel adjustment clauses.[8] During the same 1974 proceeding, the Commission considered a recommendation on how to modify the clause and, as an incentive for utilities to optimize fuel costs, implemented a two-month lag between the filing for fuel clause recovery and the Commission's decision on cost recovery.[9]

However, because the amount of work involved in reviewing the information and the resulting lag time presented difficulties for the Commission, the utilities, customers, and intervenor parties alike, the Commission modified the clause once again in 1980.[10] By Order No. 9273, the Commission modified the recovery clauses to allow recovery

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[6] Id.; *see also* Order No. 6357 at 1.

[7] Order No. PSC-11-0080-PAA-EI at 6.

[8] Id.

[9] Id.

[10] Order No. 9273, issued March 7, 1980, in Docket No. 74680-CI, In re: General Investigation of Fuel Cost Recovery Clause. Consideration of Staff's Proposed Projected Fuel and Purchased Power Cost Recovery Clause with an Incentive Factor.

on the projections of future fuel and fuel-related expenditures subject to a true-up hearing, during which the utilities' projected fuel expenditures were adjusted to recover only actual expenditures.[11]

By this Order, the PSC also modified its fuel adjustment hearings by changing the hearing schedule from once a month to every six months. In justifying its rationale, the Commission stated:

> there are certain advantages to adoption of the six month perojection (sic) period, such as overcoming the seasonal peaks and valleys which would otherwise offest (sic) the attempt to arrive at a levelized charge. We therefore find that a six month projection period should be used.[12]

Once adopted, these semi-annual fuel adjustment hearings were held until 1998 when the PSC changed the frequency and timing of cost recovery hearings from semi-annual to annual.[13]

Q. WHY DID THE COMMISSION CHANGE THE FREQUENCY OF COST RECOVERY HEARINGS FROM SEMI-ANNUAL TO ANNUAL?

A. On March 17, 1998, the Commission held a workshop to receive comments from the IOUs and other interested parties regarding proposed changes to the frequency and

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[11] Id.; *see also* Order No. 9451, issued July 15, 1980, in Docket No. 800119-EU, In re: Petition of Florida Power Corporation for Authority to Increase Its Retail Rates and Charges, p. 2.

[12] *See* Order No. 9273 at 6.

[13] Order No. PSC-98-0691-FOF-PU, issued May 19, 1998, in Docket No. 980269-PU, In re: Consideration of Change in Frequency and Timing of Hearings for Fuel and Purchased Power Cost Recovery Clause, Capacity Cost Recovery Clause, Generating Performance Incentive Factor, Energy Conservation Cost Recovery Clause, Purchased Gas Adjustment (PGA) True-up, and Environmental Cost Recovery Clause, p. 13.

timing of the four cost recovery clauses.[14] On May 19, 1998, the Commission issued Order No. PSC-98-0691-FOF-PU, which changed the frequency of fuel adjustment hearings from semi-annual to its current annual schedule. In this Order, the PSC concluded:

> that all components of the fuel clause for all investor-owned electric utilities should be prospectively calculated and set on a twelve-month projected basis at annual hearings.[15]

Also, the Commission stated that this change was "in the public interest" for the following reasons: (1) an annual fuel hearing will reduce the number of hearings days per year reserved for the fuel clause; (2) mid-course corrections may occur less frequently; and (3) an annual factor will provide customers with more certain and stable prices. When discussing that mid-course corrections may occur less frequently as a result of annual Fuel Adjustment Clause proceedings, the Commission found that:

> fuel prices are currently less volatile and a higher probability exists that monthly over-recoveries and under-recoveries will be offset between annual fuel clause hearings. Hence, midcourse (sic) corrections may occur less frequently than previously surmised.[16]

Q. WHAT IS A MID-COURSE CORRECTION?

A. A mid-course correction is a mechanism set forth by a Commission rule adopted in 2010.[17] This rule requires utilities to: (a) seek a mid-course correction if there is a 10%

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[14] Id., p. 2.

[15] Id., p. 4.

[16] Id.

[17] Rule 25-6.0424, Florida Administrative Code. This rule codifies and describes the mechanism that had previously been established through incipient policy. *See* Order No. 13694, issued September 20, 1984, in Docket No. 840001-EI, In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor; In re: Purchased Gas Cost Recovery Clause.

or greater over/under-recovery in fuel cost recovery or capacity cost recovery factors, or (b) explain why a mid-course correction is not practical. However, the utilities can also request a mid-course correction without reaching the 10% threshold requiring Commission notification.[18]

Q. HOW MANY MID-COURSE CORRECTIONS DID THE COMPANIES REQUEST DURING YOUR REVIEW PERIOD?

A. To date, the IOUs have requested 17 mid-course corrections from 2002 to 2016. According to the IOUs' 2015 responses to OPC's discovery[19] and Commission Fuel Docket filings[20], FPL filed 7 mid-course corrections (4 for over-recoveries and 3 for under-recoveries), Duke requested 5 (3 for over-recoveries and 2 for under-recoveries), Gulf filed 3 (2 for over-recoveries and 1 for an under-recovery), and TECO requested 2 (1 for an over-recovery and 1 for an under-recovery) during that time period.[21]

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[18] Id.

[19] *See* FPL's response to OPC Interrogatory No. 30; Gulf's and TECO's responses to OPC Interrogatory No. 6 in Docket No. 150001-EI, In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor (*see* Exh. TN-3, pp. 1-5).

[20] *See* Order No. PSC-02-0655-AS-EI, issued May 14, 2002, in Docket Nos. 000824-EI and 020001-EI, In re: Review of Florida Power Corporation's Earnings, Including Effects of Proposed Acquisition of Florida Power Corporation by Carolina Power & Light; Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor. *See* Order No. PSC-03-0382-PCO-EI, issued March 19, 2003, in Docket No. 030001-EI, In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor. *See* Order No. PSC-08-0495-PCO-EI, issued August 5, 2008, in Docket No. 080001-EI, In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor. *See* Order No. PSC-10-0738-FOF-EI, issued December 20, 2010, in Docket No. 100001-EI, In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor. *See* Order No. PSC-16-0120-PCO-EI, issued March 21, 2016, in Docket No. 160001-EI, In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor.

[21] On July 21, 2016, TECO notified the Commission of its intent to file a mid-course correction for a projected 2016 over-recovery. However, because of the proximity to the annual Fuel Adjustment Clause proceedings and its desire to enhance rate stability, TECO proposed to postpone the implementation of this adjustment (refunds with interest) until January 2017.

IV. FUEL PRICE HEDGING

Q. HAS THE COMMISSION INDICATED ITS INTENT FOR DEVELOPING A HEDGING PROGRAM IN FLORIDA?

A. Yes. In Order No. PSC-02-1484-FOF-EI (the "2002 Hedging Order"), issued October 30, 2002, the Commission stated that:

> The Proposed Resolution of Issues establishes a framework and direction for the Commission and the parties to follow with respect to risk management for fuel procurement. It provides for the filing of information in the form of risk management plans and as part of each IOU's final true-up filing in the fuel and purchased power cost recovery docket, which will allow the Commission and the parties to monitor each IOU's practices and transactions in this area. In addition, it maintains flexibility for each IOU to create the type of risk management program for fuel procurement that it finds most appropriate while allowing the Commission to retain the discretion to evaluate, and the parties the opportunity to address, the prudence of such programs at the appropriate time. Further, the Proposed Resolution of Issues appears to remove disincentives that may currently exist for IOUs to engage in hedging transactions that may create customer benefits by providing a cost recovery mechanism for prudently incurred hedging transaction costs, gains and losses, and incremental operating and maintenance expenses associated with new and expanded hedging programs.[22]

Q. DID ANY MAJOR HEDGING DEVELOPMENTS TAKE PLACE IN 2008?

A. Yes. In 2008, FPL proposed to discontinue hedging and to replace it with an alternative mechanism.[23] There was also a sharp rise in the price of natural gas in 2008, which triggered several mid-course correction requests from the Companies for significant under-recoveries.[24]

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[22] Order No. PSC-02-1484-FOF-EI, issued October 30, 2002, in Docket No. 011605-EI, In re: Review of Investor-owned Electric Utilities' Risk Management Policies and Procedures, p. 2.

[23] *See* Petition of Florida Power & Light Company for Approval of Improved Volatility Mitigation Mechanism, filed January 31, 2008, in Docket No. 080001-EI.

[24] *See* mid-course correction filings in Docket No. 080001-EI.

Q. DID THE COMMISSION MODIFY FUEL HEDGING IN FLORIDA OR PROVIDE NEW HEDGING GUIDELINES IN RESPONSE TO THIS SHARP RISE IN THE PRICE OF NATURAL GAS?

A. Yes. In Order No. PSC-08-0667-PAA-EI (the "2008 Hedging Order"), issued October 8, 2008, the Commission established guiding principles that it recognized as appropriate to follow in reviewing plans and an IOU's hedging activities.[25] The first two guiding principles are:

> a. The Commission finds that the purpose of hedging is to reduce the impact of volatility in the fuel adjustment charges paid by an IOU's customers, in the face of price volatility for the fuels (and fuel price-indexed purchased power energy costs) that the IOU must pay in order to provide electric service.
>
> b. The Commission finds that a well-managed hedging program does not involve speculation or attempting to anticipate the most favorable point in time to place hedges. Its primary purpose is not to reduce an IOU's fuel costs paid over time, but rather to reduce the variability or volatility in fuel costs paid by customers over time.[26]

Q. ARE YOU AWARE OF ANY ORDERS THAT HAVE MODIFIED THE UNDERLYING BASIS FOR THE COMMISSION'S APPROVAL OF THE UTILITY HEDGING PROGRAMS?

A. No, I am not.

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[25] Order No. PSC-08-0667-PAA-EI, issued October 8, 2008, in Docket No. 080001-EI, In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor. Note: the Commission clarified the 2002 Hedging Order in May 2008. *See* Order No. PSC-08-0316-PAA-EI, issued May 14, 2008, in Docket No. 080001-EI. In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor.

[26] Order No. PSC-08-0667-PAA-EI, p. 16.

Q. DO ANY OF THE HEDGING ORDERS PRECLUDE ANY PARTY FROM PETITIONING FOR THE SUSPENSION OR TERMINATION OF THE FUEL HEDGING PROGRAM IN FLORIDA?

A. No, I have been advised by counsel that they do not.

V. OBSERVATIONS

Q. PLEASE SUMMARIZE YOUR OBSERVATIONS REGARDING THE COMPANIES' NATURAL GAS HEDGING GAINS AND LOSSES FOR THE PERIOD FROM 2002 TO 2015.

A. In order to ascertain the magnitude of the Companies' hedging gains or losses, I reviewed the Companies' hedging true-up filings with the Commission for every year from 2002 through 2015 and their relevant discovery responses. The filings consisted of testimonies and exhibits, which included a summary of the Companies' hedging activities and indicated whether or not the Companies achieved any gains or losses related to those hedging activities. Exhibit TN-2 provides a summary of the Companies' hedging true-up filings and shows that each of the IOUs experienced cumulative natural gas hedging losses from 2002 to 2015, which totaled $6,113,567,924 for all four Companies.

Q. WOULD YOU PROVIDE A SUMMARY OF THE GAINS AND LOSSES FROM 2002 TO 2015?

A. Yes. In the first seven years of the program (2002-2008), the Companies' hedging programs had combined net hedging losses of approximately $103 million for customers. Prior to the 2008 Hedging Order, the Commission's expectation was that gains and losses would generally offset one another over time.[27] However, during the last full seven years of the program (2009-2015), the Companies' hedging programs had combined net hedging losses of just over $6 billion. A comparison of the cumulative IOU losses experienced during these two time periods is summarized in Table 1 below:

Table 1 – Comparison of IOU Cumulative Natural Gas Hedging Gains/(Losses) From 2002-2008 and From 2009-2015

Year	Gains/(Losses) 2002-2008	Year	Gains/(Losses) 2009-2015
2002	$ 12,456,765	2009	$ (2,461,263,539)
2003	$ 5,936,365	2010	$ (882,518,470)
2004	$ 257,698,008	2011	$ (694,455,607)
2005	$ 716,864,935	2012	$ (1,117,525,079)
2006	$ (427,767,061)	2013	$ (140,565,299)
2007	$ (902,557,336)	2014	$ 106,424,864
2008	$ 234,055,091	2015	$ (820,351,561)
Totals	$ (103,313,233)	Totals	$ (6,010,254,691)

Q. WHAT HAPPENED IN 2008 AND 2009 WITH THE ECONOMY AND THE PRICE OF NATURAL GAS?

A. The Great Recession started in 2008 and continued into 2009 and beyond. In response to the Great Recession and the influx of large volumes of shale gas obtained through hydraulic fracturing (i.e., "fracking"), the price of natural gas began to fall rapidly. As observed in 2008 data from the U.S. Energy Information Administration ("EIA"), the Weekly Henry Hub Natural Gas Spot Price (measured in Dollars per Million British

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[27] Order No. PSC-08-0030-FOF-EI, issued January 8, 2008, in Docket No. 070001-EI, In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor, p. 4.

thermal units ("MMBtu")) went from a high of $13.20 on July 4, 2008 to a low of $5.41 on December 26, 2008.[28] The price of natural gas has continued to trend downward.[29] The weekly price was $3.02 as of September 16, 2016.[30] In 2009, the Companies started experiencing significant hedging losses once the price dropped because they had hedged or locked-in natural gas prices at the top of the market.

Q. WHAT ARE THE COMPANIES' 2016 ACTUAL NATURAL GAS HEDGING GAINS OR LOSSES FROM JANUARY 1 THROUGH JULY 31, 2016?

A. In their discovery responses submitted in August 2016, each of the Companies reported a natural gas hedging loss from January 1 through July 31, 2016. These losses are summarized in Table 2 below:

Table 2 – 2016 Actual Natural Gas Hedging Gains/(Losses) For IOUs From January 1 Through July 31, 2016[31]

IOU	2016 Actual Natural Gas Hedging Gains/(Losses) From January 1 Through July 31, 2016
Duke	$ (114,900,000)
FPL	$ (190,763,980)
Gulf	$ (37,505,696)
TECO	$ (17,877,735)
TOTAL	$ (361,047,411)

[28] Weekly Henry Hub Natural Gas Spot Price (Dollars per MMBtu) available from the EIA at: https://www.eia.gov/dnav/ng/hist/rngwhhdW.htm, last checked on September 23, 2016.

[29] Id.

[30] Id.

[31] *See* Duke's, Gulf's, and TECO's Responses to OPC Interrogatory No. 11.b.; and FPL's Response to OPC Interrogatory No. 66.b. (*see* Exh. TN-3, pp. 6-26).

Q. WHAT ARE THE COMPANIES' PROJECTED NATURAL GAS HEDGING GAINS OR LOSSES FROM AUGUST 1 THROUGH DECEMBER 31, 2016?

A. In their discovery responses submitted in August 2016, each of the Companies projected a natural gas hedging loss from August 1 through December 31, 2016. These projccted losses are summarized in Table 3 below:

Table 3 – 2016 Projected Natural Gas Hedging Gains/(Losses) For IOUs From August 1 Through December 31, 2016[32]

IOU	2016 Projected Natural Gas Hedging Gains/(Losses) From August 1 Through December 31, 2016
Duke	$ (30,600,000)
FPL	$ (34,625,394)
Gulf	$ (17,063,422)
TECO	$ (583,030)
TOTAL	$ (82,871,846)

Q. WHAT ARE THE COMPANIES' PROJECTED NATURAL GAS HEDGING GAINS OR LOSSES FOR CALENDAR YEAR 2016?

A. In their discovery responses submitted in August 2016, each of the Companies projected a natural gas hedging loss for calendar year 2016. These projected losses are summarized in Table 4 below:

[32] *See* Duke's, Gulf's, and TECO's Responses to OPC Interrogatory No. 11.c.; and FPL's Response to OPC Interrogatory No. 66.c. (*see* Exh. TN-3, pp. 6-26).

Table 4 – Calendar Year 2016 Projected
IOU Natural Gas Hedging Gains/(Losses)[33]

IOU	Calendar Year 2016 Projected Natural Gas Hedging Gains/(Losses)
Duke	$ (145,500,000)
FPL	$ (225,389,374)
Gulf	$ (54,569,118)
TECO	$ (18,460,765)
TOTAL	$ (443,919,257)

Q. WHAT ARE THE COMPANIES' PROJECTED NATURAL GAS HEDGING GAINS OR LOSSES FOR 2017?

A. In their discovery responses submitted in August 2016, two Companies projected natural gas hedging gains and two Companies projected natural gas hedging losses for 2017. These projected gains and losses are summarized in Table 5 below:

Table 5 – 2017 Projected Natural Gas
Hedging Gains/(Losses) For IOUs[34]

IOU	2017 Projected Natural Gas Hedging Gains/(Losses)
Duke	$ (25,800,000)
FPL	$ 51,032,744
Gulf	$ (18,000,000)
TECO	$ 3,201,935
TOTAL	$ 10,434,679

[33] *See* Duke's, Gulf's, and TECO's Responses to OPC Interrogatory No. 11.a.; and FPL's Response to OPC Interrogatory No. 66.a. (*see* Exh. TN-3, pp. 6-26).

[34] *See* Duke's, Gulf's, and TECO's Responses to OPC Interrogatory No. 12; and FPL's Response to OPC Interrogatory No. 67 (*see* Exh. TN-3, pp. 6-26).

VI: CONCLUSION

Q. PLEASE SUMMARIZE YOUR CONCLUSION.

A. My conclusion is that the facts confirm that the Companies' natural gas hedging programs have resulted in losses exceeding $6 billion for Florida customers from 2002 to 2015. Also, losses are currently projected to exceed $443 million for 2016 alone. In addition, even though the Companies are collectively projecting a modest gain of about $10.4 million in 2017, this projected figure is insignificant in comparison to the billions of dollars of actual losses paid by IOU customers since the inception of the hedging program. Further, the IOUs' current 2017 projections are simply "point-in-time estimates" that are subject to change during the next 15 months.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

DIRECT TESTIMONY

OF

DANIEL J. LAWTON

On Behalf of the Office of Public Counsel

Before the

Florida Public Service Commission

Docket No. 160001-EI

SECTION I: INTRODUCTION / BACKGROUND / SUMMARY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Daniel J. Lawton. My business address is 12600 Hill Country Blvd, Suite R-275, Austin, Texas 78738.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I have been working in the utility consulting business as an economist since 1983. Consulting engagements have included electric utility load and revenue forecasting, cost of capital analyses, financial analyses, revenue requirements, fuel reviews, and cost of service reviews, and rate design analyses in litigated rate proceedings before federal, state and local regulatory authorities, and in court proceedings. I have worked with numerous municipal utilities developing electric rate cost of service studies for reviewing and setting rates, including fuel clause rates and reconciliations. In addition, I have a law practice based in Austin, Texas. My main areas of legal practice include administrative law representing municipalities in electric and gas rate proceedings and other litigation and contract matters. I have included a brief description of my relevant educational background and professional work experience in my Exhibit ____ (DJL-1).

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN UTILITY RATE PROCEEDINGS?

A. Yes. I have previously filed testimony in Florida and a number of jurisdictions across the country. A list of cases where I have previously filed testimony is included in my Exhibit ____ (DJL-1).

Q. ON WHOSE BEHALF ARE YOU FILING TESTIMONY IN THIS PROCEEDING?

A. I am providing analyses and testimony related to fuel hedging on behalf of the Office of Public Counsel, State of Florida ("OPC"). I will review the Florida Power & Light Company ("FPL"), Tampa Electric Company ("TECO"), Duke Energy Florida ("DEF), and Gulf Power Company ("Gulf") collectively ("the Companies") annual fuel cost recovery filings related to fuel cost hedging.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony in this proceeding is to update hedging impacts on customers and update gas market information as such information relates to hedging needs, since my testimony in the last fuel case, Docket No. 150001-EI. In addition, I address how gas-dependent utilities establish fuel factors without hedging. I update the impacts of the Companies' hedging programs on consumers and the potential impacts on consumers, assuming the 2017 Risk Management Plans are approved by the Florida Public Service Commission ("Commission"). Another OPC witness, Tarik Noriega, will quantify the updated historical impacts of hedging on consumers.

Q. WHAT MATERIALS DID YOU REVIEW AND RELY ON FOR THIS TESTIMONY?

A. I have reviewed prior rate orders of the Commission, the Companies' various filings in Docket No. 160001-EI, the Companies' filings in prior dockets, discovery responses to requests in this proceeding, along with other information available in the public domain. When relying on various sources, I have referenced such sources in my testimony and/or attached Exhibits and included copies or summaries in my attached Exhibits and/or work papers.

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS REGARDING THE REASONABLENESS OF CONTINUED FINANCIAL HEDGING.

A. My analysis leads me to conclude that the overall costs of the natural gas financial hedging programs continue to exceed the benefits to consumers. Since the last fuel case, Docket No. 150001-EI, gas market supply and demand have remained stable and natural gas prices have remained low and steady. Hedging costs to consumers continue to mount, now exceeding $6.5 billion since 2002, while hedging benefits (reduced volatility) appear small at best. The hedging programs in Florida continue to provide benefits for Florida utility shareholders in terms of reduced liquidity risk, all at the expense of consumer fuel cost increases. As discussed in my testimony in Docket No. 150001-EI, utility companies around the country continue to reduce financial hedging in light of the changes in the natural gas markets. There are alternatives available to establish the fuel factor which recognize gas market price changes without the added risk of enormous and continued hedging losses. Therefore, I respectfully recommend that, on a prospective basis, the Commission consider ending natural gas hedging activities as a mechanism to limit gas (fuel) price volatility, and that the Commission deny the 2017 Risk Management Plans proposed by the Companies regarding future financial hedging proposals. In summary:

1. There is significant doubt as to the benefits of fuel hedging given the continued low prices and stable production and demand forces in natural gas markets, versus the historical, ongoing, and potential future financial hedging costs to consumers;

2. Natural gas markets in terms of gas production and market supply have changed substantially in recent years, reducing the probability and extent of significant supply-side market disruptions and also reducing natural gas price volatility relative to past years;

3. Regulatory authorities are recognizing the limitations of financial hedging in the changed natural gas markets; and

4. The current fuel factor design and mid-course correction mechanism in Florida already mitigates fuel cost volatility without the need and cost risk of financial hedging.

Q. PLEASE PROVIDE A BRIEF SUMMARY OF YOUR CONCLUSIONS.

A. Since the time financial hedging was first implemented in Florida to address fuel and natural gas price volatility, annual gas production has grown dramatically and available gas reserves are well beyond forecasted levels from even ten years ago. As a result, price levels have declined substantially and price volatility is substantially reduced from past levels. Since September 2015 when I filed testimony in the last year's docket, the average monthly natural gas prices are lower than prior years and have remained stable. Yet, over that same period, the Companies have continued to generate substantial hedging losses, which are passed on to consumers in the form of higher fuel costs.

Moreover, current forecasts of gas market prices indicate stable gas prices in the near-term, mid-term, and longer-term time horizon. Current market forecasts for natural gas all indicate that natural gas prices and markets are more stable, and the facts and circumstances that once supported natural gas hedging as a tool to limit price volatility affecting customers are no longer present. Further, there are available, transparent, cost-free opportunities to limit price volatility impacts while factoring in future expectations in the gas market prices through the fuel adjustment clause without financial hedging. Given the enormous lost-opportunity costs experienced by consumers in terms of overall fuel costs, and the potential for additional lost opportunities for lower gas costs under the past hedging and risk management plans, financial hedging of natural gas should be ended at this time.

For all the above reasons, I recommend that the Commission deny the 2017 Risk Management Plans submitted by the Florida Companies as it relates to the hedging of natural gas.

SECTION II: <u>SUMMARY OF ISSUES ADDRESSED</u>

Q. WHAT ISSUES DO YOU ADDRESS WITH REGARD TO THE FLORIDA COMPANIES' PROPOSALS TO CONTINUE HEDGING NATURAL GAS PURCHASES THROUGH THE PROPOSED 2017 RISK MANAGEMENT PLANS?

A. As a starting point, I first provide a brief summary of my findings and analyses of the hedging issue from Docket No. 150001-EI. Second, I address the changes that have occurred since the last fuel proceeding. These changes entail a review of historical natural gas prices since the last proceeding, and the hedging impact on consumers' fuel prices since the last fuel docket. The third area I analyze is the current forecast of gas markets and current expectations of future gas prices and volatility. The fourth section of my analysis is an update of my 2015 analysis given current market data and forecasts. Lastly, I address alternatives that eliminate hedging costs and provide protection from gas price volatility.

SECTION III: <u>DOCKET NO. 150001-EI HEDGING ANALYSIS</u>

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS RELATED TO FINANCIAL HEDGING IN DOCKET NO. 150001-EI.

A. The starting point of my analysis in this proceeding is my testimony and exhibits from Docket No. 150001-EI. I have included that testimony in my Exhibit ___ (DJL-2) and incorporate that testimony by reference. As shown in Exhibit ___ (DJL-2), my analyses in Docket No. 150001-EI resulted in the following conclusions and recommendations:

1. There is significant doubt as to the benefits of fuel hedging given the historical, ongoing, and potential financial costs to consumers;

2. From 2009 to 2014, significant hedging losses were experienced in five of the six years; and current estimates by the Companies indicate 2015 to be another year of hedging losses, making it six out of the last seven years with hedging losses;

3. The amount of hedging losses or "costs" passed on to consumers in the form of higher-than-market price fuel costs has been substantial with hedging costs (or higher-than-market fuel costs) amounting to a staggering $2.5 billion between 2011 and the estimated 2015-year;

4. Natural gas markets in terms of gas production and market supply have changed substantially in recent years reducing the probability and extent of significant supply-side market disruption and also reducing natural gas price volatility relative to past years;

5. Regulatory authorities are recognizing the limitations of financial hedging in the changed natural gas markets; and

6. The current fuel factor design and mechanism in Florida already adequately mitigates fuel cost volatility without the need and cost risk of financial hedging. [1]

Q. DID YOU PROVIDE A BRIEF SUMMARY OF YOUR CONCLUSIONS IN DOCKET NO. 150001-EI?

A. Yes, my summary was as follows:

> Since the early 2000 time period, when gas markets experienced substantial volatility and price spikes for natural gas due to supply constraints along with adverse weather impacting natural gas demand, market conditions particularly the supply of natural gas have changed substantially. Annual gas production has grown dramatically and available gas reserves are well beyond forecasted levels from even ten years ago. As a result, price levels have declined substantially and price volatility is substantially reduced from past levels. Moreover, current

[1] See Direct Testimony Daniel J. Lawton, Docket No. 150001-EI at Page 4.

> forecasts of gas market prices indicate stable gas prices in the near-term, mid-term, and longer-term time horizon. The recent market experience since 2011 and the current market forecasts for natural gas all indicate that volatility is declining, natural gas prices are more stable, and the facts and circumstances that once supported natural gas hedging as a tool to limit price volatility are no longer present. Further, there are available, transparent, cost-free opportunities to limit price volatility impacts on consumers going forward through the fuel adjustment clause. Given the enormous lost-opportunity costs experienced by consumers in terms of overall fuel costs, and the potential for additional lost opportunities for lower gas costs under the status quo hedging and risk management plans, financial hedging of natural gas should be ended at this time.[2]

Since the last fuel proceeding, all these recommendations and conclusions remain valid. As I discuss in detail below: hedging costs continue at high levels to the detriment of consumers,[3] gas prices remain low and stable, gas market production remains strong and stable, gas market projections (short and long-term) remain steady and strong, and many regulatory authorities continue to employ fuel factor approaches without the risks of financial hedging.

SECTION IV: <u>RECENT AND FUTURE NATURAL GAS PRICES AND MARKET EXPECTATIONS</u>

Q. HAVE YOU REVIEWED NATURAL GAS PRICES SINCE THE LAST FUEL PROCEEDING IN DOCKET NO. 150001-EI?

A. Yes. In the last case, the data in my analysis ended in July 2015. The average monthly gas price at July 2015 was $2.84/MMBtu.[4] Since July 2015, natural gas prices have generally been below $2.84 for most months. I have included monthly average gas

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[2] See Direct Testimony Daniel J. Lawton, Docket No. 150001-EI at Page 5.

[3] See Direct Testimony of Tarik Noriega.

[4] See Exhibit ___ (DJL-2).

prices and a graph of the historical prices in my Exhibit ___ (DJL-3). These lower gas prices are consistent with the stable market conditions in both natural gas supply and demand that has existed and continues to be forecast well into the future. Further, these lower gas prices are well within the range of the Energy Information Agency (EIA) forecasts.

The average natural gas price in 2015 was $2.63/MMBtu while the average natural gas price decreased in 2016 to $2.26/MMBtu.[5] Thus, on average, prices in the past 12 months have been lower than the previous 12 months. At this time, September 22, 2016, natural gas spot prices have increased to around $3.00/MMBtu.[6] Yet, the Companies continue to hedge and are losing substantial dollars to the detriment of consumers. Natural gas price volatility was not a problem last year or in recent prior years.

Q. WHAT DO THE CURRENT GAS MARKET FORECASTS INDICATE REGARDING FUTURE NATURAL GAS PRICES, AND MARKET SUPPLY AND DEMAND?

A. Based on the September 7, 2016 EIA Short-Term Energy Outlook, current natural gas inventories are in excess of 3,400 billion cubic feet (Bcf), which is higher than last year and the most recent five-year average levels of gas inventories.[7] One key reason for

[5] The average monthly price for 2016 for January through August 2016 is $2.26/MMBtu, using the Henry Hub Natural Gas Spot Price (Dollars per Million Btu), data available at https://www.eia.gov/dnav/ng/hist/rngwhhdM.htm, last checked September 22, 2016.

[6] https://finance.yahoo.com/quote/ng=f, last checked September 22, 2016.

[7] U.S. Energy Information Administration, Short-Term Energy Outlook (EIA STEO), September 7, 2016 at 1, available at http://www.eia.gov/forecasts/steo/.

such high inventory levels is the warmer than normal weather last winter which left inventories at record-high levels.[8]

Natural gas demand is projected to be 77.1 Bcf/d in 2017. This compares to natural gas demand of 75.2 Bcf/d in 2015 and 76.4 Bcf/d in 2016.[9] Such natural gas demand growth is consistent with the relative growth in Gross Domestic Product (GDP). On the supply or production side of the gas markets, June 2016 marketed production averaged 77.5 Bcf/d. EIA projects that production levels will grow by 3.0% in 2017.[10] In addition, EIA now projects that the U.S. will become a net natural gas exporter by the second quarter of 2017.[11]

As to expectations and estimates of natural gas prices, "EIA expects natural gas prices to gradually rise through the forecast period. Forecast Henry Hub prices average \$2.42/MMBtu in 2016 and \$2.87/MMBtu in 2017."[12]

Overall, the current EIA Short-Term Outlook predicts slow natural gas market demand growth, more than adequate supply to meet any growth, and continuation of low stable natural gas prices over the short-run forecast, which is a good thing for customers of

[8] EIA STEO, September 7, 2016 at 6.

[9] EIA STEO, September 7, 2016 at 7.

[10] EIA STEO, September 7, 2016 at 7.

[11] EIA STEO, September 7, 2016 at 7.

[12] EIA STEO, September 7, 2016 at 7.

utilities highly dependent on natural gas for generating electricity. It would be even better if those Companies did not attempt to financially hedge natural gas.

Q. HAVE YOU REVIEWED EIA'S CURRENT LONG-TERM NATURAL GAS MARKET FORECAST?

A. Yes. The long-term forecast through 2040 shows a stable supply and demand in natural gas markets. The projection of real price changes indicate a 2.5% growth in prices for natural gas over the long-term horizon. One of the key takeaways from the 2016 long-term forecast is that "[n]atural gas production increases despite relatively low and stable gas prices."[13] The bottom line is that the U.S. is expected to be a net exporter of natural gas. The amount of exports will be influenced by foreign prices for natural gas. Domestic production is also expected to increase with domestic prices remaining low and stable. Price volatility is not expected to be an issue, meaning financial hedging will provide less benefits, if any benefit at all, based on current forecasts.

Q. DURING THE RECENT PERIOD OF LOW, STEADY GAS PRICES AND MARKET CONDITIONS, HAVE THE FLORIDA UTILITY FINANCIAL HEDGING PROGRAMS CONTINUED LOSING MONEY?

A. Yes. Based on information provided by OPC witness Noriega who addresses this issue, the cumulative financial hedging loss in 2015 was over $820 million. The actual 2016 financial hedging losses through July 31, 2016 are approximately $361 million and projections indicate another $82.9 million of financial hedging losses for the remainder

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[13] See U.S. EIA Annual Energy Outlook, Key takeaways from AEO 2016 at 2, available at www.eia.gov/pressroom/presentations/sieminski_06282016.pdf.

of 2016.[14] These levels of financial hedging losses when added to prior financial hedging losses amount to approximately $6.557 billion for the Florida utility hedging activities since 2002.[15] This is not good, especially in light of projections for less volatility and steady gas prices. While one might expect small hedging losses analogous to an insurance premium given financial hedging programs are in place to insure against price volatility, $6.6 billion in losses is well beyond any insurance premium. Moreover, the mounting losses may only get worse.

Q. WHAT ABOUT THE PROJECTED 2017 HEDGING GAINS FOR FPL AND TECO – SHOULDN'T THE COMMISSION GIVE NATURAL GAS HEDGING A FEW MORE YEARS TO ALLOW COMPANIES TO RECOUP SOME OF THEIR LOSSES?

A. No. The gains are based on the most current forecasts the Companies utilize. Right now, the forecasts may show gains for FPL and TECO. But if gas prices continue to stay at or near current levels, this may affect the size of FPL and TECO's currently projected gains.

SECTION V: <u>FINANCIAL HEDGING AND VOLATILITY</u>

Q. IN YOUR OPINION, IS FINANCIAL HEDGING NECESSARY TO LIMIT VOLATILITY?

A. No. I addressed the issue of volatility in natural gas prices last year and this analysis can be found in my Exhibit ___ (DJL-2). Given the current long-term EIA projections

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[14] See Exhibit ___ (DJL-4).
[15] See Exhibit ___ (DJL-4).

of low and steady natural gas market supply and demand balance and steady natural gas market prices, volatility is no longer the concern it once was when Florida utilities started hedging natural gas. Thus, the markets (supply and demand balances) are addressing gas price volatility making financial hedging less valuable. Moreover, so long as the volatility in the price of natural gas does not exceed the 10% threshold for triggering a mid-course correction to the fuel factor, customers will not experience any of the volatility inherent in the natural gas markets.

Q. DO UTILITY SHAREHOLDERS BENEFIT FROM FINANCIAL HEDGING PROGRAMS?

A. Yes. When financial hedging is employed, shareholder liquidity risks are reduced. By locking in natural gas prices through financial hedging and using those locked-in prices in setting the fuel factor, fuel costs on the financially hedged gas purchases are recovered in a timely manner. The non-hedged purchases may or may not be recovered on a current basis. For example, assume gas prices are higher than originally projected in the development of the fuel factor. This will result in a fuel cost under-recovery. While the utility will eventually recover the costs (absent a disallowance for extraordinary reasons), such cost recovery may take a year or more. Given that fuel purchases must be paid for currently, the mismatch between gas purchase and gas cost recovery on unhedged gas purchases can cause cash recovery timing or liquidity issues. Liquidity risks are risks that impact shareholder return risks and these risks are reduced when fuel costs are hedged. That is why the Companies have an incentive to continue hedging, even when it makes no financial sense to do so from the customers' perspective.

The liquidity risk issue, in the context of hedging, was addressed recently by FPL witness Dewhurst in a recent deposition related to FPL's base rate case, Docket No. 160021-EI.[16] The bottom line is that shareholders benefit from fuel hedging in terms of liquidity risk reductions which has cost customers over $6.5 billion since 2002.

Q. DO THE CUSTOMERS RECEIVE SOME BENEFIT FROM FUEL HEDGING?

A. The design of most hedging programs are to benefit customers by insulating them from large changes in fuel prices which can impact customer bills. While fuel hedging is not designed to lower prices or beat the market, because beating the market is not possible in the long-term, hedging can stabilize prices to avoid the immediate impacts of large price spikes. Examples of large natural gas price spikes can be found between 2000 and 2008 in the U.S. gas markets.

The issue now is whether continued financial hedging is beneficial to customers in light of changed natural gas markets, stable gas price forecasts, and mounting hedging losses. The answer to that question is no – financial hedging is not currently beneficial to customers. For example, last year, in Docket No. 150001-EI, FPL attempted to show hedging benefits to customers in the rebuttal testimony of witness Yupp, by asserting fewer mid-course fuel cost corrections are required when fuel hedging is employed.[17] I have included Mr. Yupp's analysis in my Exhibit ___ (DJL-6). What his analysis shows is that most of the mid-course corrections would have resulted in customer

[16] See Deposition of Moray Dewhurst in Docket No. 160021-EI (August 4, 2016) at pages 16-18. See Exhibit ___(DJL-5).

[17] See Docket No. 150001-EI Rebuttal testimony FPL witness Yupp at Exhibit GJY-7.

refunds. Customer fuel cost refunds, even when requiring a mid-course correction, are not a volatility problem. Moreover, since 2010 when gas markets substantially changed due to increased shale development, only in 2014 would a mid-course correction have been required for a fuel price increase. Given that FPL's hedging costs since 2010 exceed $2.1 billion,[18] it appears that the hedging costs greatly exceeded the hedging benefits. Similarly, the customers of the other Companies may have enjoyed fewer mid-course corrections since 2010 as a result of hedging, but at what cost? The answer is approximately $1.76 billion to potentially avoid relatively few mid-course corrections.

Q. ARE THERE OTHER EXAMPLES OF HEDGING COSTS EXCEEDING CUSTOMER BENEFITS?

A. Yes. One example can be found in the Tampa Electric Company ("TECO") response to OPC's Third Set of Interrogatories No. 20, where TECO attempts to demonstrate volatility mitigating hedging benefits to customers. I have included part of that response showing 2015 actual gas prices versus TECO's hedged gas purchases in the following table:

MONTH	2015 NYMEX GAS PRICES $/MMBtu at HENRY HUB	2015 TECO HEDGED NATURAL GAS PRICES $MMBtu
JANUARY	$3.189	$4.285
FEBRUARY	$2.866	$4.386

[18] See Exhibit ___ (DJL-4).

MARCH	$2.894	$4.154
APRIL	$2.590	$3.745
MAY	$2.517	$3.676
JUNE	$2.815	$3.725
JULY	$2.773	$3.743
AUGUST	$2.886	$3.680
SEPTEMBER	$2.638	$3.673
OCTOBER	$2.563	$3.646
NOVEMBER	$2.033	$3.801
DECEMBER	$2.206	$3.861
AVERAGE	$2.664	$3.865
STANDARD DEVIATION	$.303	$.248

The above table demonstrates that the 2015 actual prices were lower than the TECO hedged purchases in each month of 2015. The average Henry Hub gas price in 2015 was $2.664/MMBtu while TECO's hedged gas price in 2015 was $3.865/MMBtu. But, TECO asserts that the variability in gas prices were reduced through the hedging plan as evidenced through the lower standard deviation for the hedged prices. While TECO's statement concerning the standard deviation metric is correct, TECO never mentions the cost of the hedging activities. The 2015 TECO hedging cost to consumers is about $39.8 million (See Exhibit ___ (DJL-4). These costs substantially exceeded the hedging benefits in 2015 for TECO's customers. Again, in a period of stable gas markets and low prices, financial hedging of natural gas has become a burden on consumers.

SECTION VI: FINANCIAL HEDGING ALTERNATIVES

Q. HOW DO UTILITY COMPANIES SET FUEL FACTORS WHEN FINANCIAL HEDGING IS NOT EMPLOYED?

A. One example is Entergy Texas, Inc. ("ETI"), a vertically integrated utility in Texas with a high level of gas generation and no financial hedging. ETI calculates the fixed fuel factor twice a year in March and September. The fuel factor process is set up as a simplified, transparent proceeding. The overall process of setting the semi-annual fuel factor is accomplished in nine simple steps as follows:

1. Total actual fuel costs for the prior 12 months is calculated.

2. Coal and Nuclear Fuel costs are subtracted from the Line 1 Total.

3. The result is the fuel factor expense without coal and nuclear.

4. A projected Market Factor is calculated based on the percent change in the market cost of gas.

4a. The Market Factor is calculated employing the following formula:

(Simple Average of the Henry Hub Natural Gas Prices For The Next 12 Months) / (Actual Henry Hub Prices For The Most Recent 12 Months)

The Market Factor employs the Annual average monthly NYMEX Henry Hub settlement prices from the Wall Street Journal for the next 12 months. This annual average is calculated for each of the first 10 business days of the month preceding the fuel factor change. This calculation takes into account current and future natural gas market conditions and prices. As stated earlier, the denominator of the Market Factor calculation reflects the average of the recent actual Henry Hub prices. The resulting ratio or Market Factor is then used to adjust gas costs up or down depending on Market Factor results. **Thus, current and expected natural gas market conditions are reflected in the fuel factor without the need for financial hedging.**

5. Step 5 multiplies the Market Factor calculated in Step 4 times the gas costs calculated in Step 3.
6. The non-gas costs calculated in Step 2 are now added back into the Market Factor adjusted gas costs calculated in Step 5.
7. The result of the sum of Step 6 and 5 is the total fuel factor expense to be collected.
8. Actual billing determinants are calculated.
9. The ratio of Step 7 to Step 8 is the resulting unit fuel factor.

I have included a three-page summary of ETI's most recent fuel factor calculation in Exhibit ___ (DJL-7).

Q. COULD A SIMILAR FUEL FACTOR APPROACH BE EMPLOYED FOR THE FLORIDA UTILITY COMPANIES?

A. Yes. While adjustments may be required for annual versus semi-annual recognition of other cost items included in the Florida fuel factor, such a model could be developed to recognize market changes in gas costs without the need for financial hedging.

Q. HOW DOES THE ETI FUEL FACTOR COMPARE TO THAT OF THE FLORIDA COMPANIES' FUEL FACTOR?

A. The current ETI fuel factor is $.034798 per Kwh before line loss adjustments. The most recent fuel factor decision for Florida Companies in 2016 is as follows:[19]

1. FPL $.02837/Kwh (June – December 2016);
2. Duke $.03677/Kwh;
3. Gulf $.03650/Kwh; and
4. TECO $.03671/Kwh.

[19] Order No. PSC-15-0586-FOF-EI, issued December 23, 2015, in Docket No. 150001-EI.

The ETI fuel factor calculation without hedging is within the range of the factors calculated for the Florida fuel factors with hedging. The major difference is that ETI customers have no risk of suffering hedging losses, while history shows Florida customers have a high probability of continued and mounting hedging losses if hedging is allowed to continue unabated.

Q. ARE YOU RECOMMENDING THAT THE COMMISSION ADOPT AN ALTERNATIVE FUEL MECHANISM?

A. No. I am recommending that the Commission deny approval of the Companies' 2017 Risk Management Plans, and order the Companies to discontinue the financial hedging of natural gas. I present the alternative fuel mechanism to demonstrate that financial hedging is not necessary, even for utility companies that are highly dependent on natural gas.

Q. IN YOUR OPINION, HAS THE NATURAL GAS MARKET'S CONTINUED STEADY AND STABLE PERFORMANCE AND THE EIA FORECASTS FOR CONTINUED LOW AND STABLE NATURAL GAS PRICES CREATED A REASONABLE BASIS TO RECONSIDER FINANCIAL HEDGING?

A. Yes. As outlined in my testimony in Docket No. 150001-EI, and as I discuss above, the natural gas markets have changed substantially over the past few years. The recent and current EIA forecasts show that natural gas production has substantially increased, forward estimates of natural gas prices have become more stable, and price volatility has declined. As discussed in my testimony in Docket No. 150001-EI, based on these factors, some regulatory authorities and utilities have concluded financial hedging is no longer necessary and, moreover, is no longer worth the risks or costs associated with financial hedging. For all of the above reasons, I recommend that the Companies' proposed financial hedging plans not be approved on a going-forward basis. If circumstances change substantially, hedging can be visited again in the future.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

DUKE ENERGY FLORIDA

DOCKET NO. 160001-EI

REBUTTAL TESTIMONY OF JOSEPH MCCALLISTER

September 30, 2016

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Joseph McCallister. My business address is 526 South Church Street, Charlotte, North Carolina 28202.

Q. Have you previously filed testimony in this docket?

A. Yes, I filed direct testimony on April 6, 2016 and August 18, 2016.

Q. Have your duties and responsibilities remained the same since you last testified in this proceeding?

A. Yes.

II. PURPOSE AND SUMMARY OF TESTIMONY.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide rebuttal to, and additional context regarding, the September 23, 2016, direct testimonies of Staff's witnesses Mr. Michael Gettings and

Mr. Mark Ciccheti, and the Office of Public Counsel's ("OPC") witness Mr. Daniel Lawton.

Q. Please summarize your rebuttal testimony.

A. Mr. Gettings' testimony summarizes a hedging definition and framework that represents a departure from this Commission's existing hedging policy, definition, and objectives. If the Commission decides to adopt in full or in part the concepts included in Mr. Gettings' testimony, the Company will comply with the Commission's directive and look at amending its hedging parameters on a prospective basis to provide natural gas cost risk mitigation while further attempting to minimize hedge costs utilizing risk parameters developed from those concepts. However, to accomplish this the Company believes more information and a workshop forum are needed to ensure a full understanding of the concepts and requirements, to ensure any updated hedging program parameters and reporting are consistent with any amended or new policies, and provide time for implementation. In addition, the form and content of future Commission reviews of any new or amended hedging program parameters need to be more fully developed and understood. Mr. Ciccheti endorses Mr. Gettings' proposal and provides a recommendation regarding the timeline for implementation, and therefore the same points above are applicable to his testimony. I also clarify one statement in Mr. Ciccheti's testimony. Lastly, I provide an observation on the testimony of Mr. Lawton.

Q. Are you sponsoring any exhibits to your testimony?

A. No.

III. REBUTTAL TESTIMONY.

Q. Please discuss the organization of your rebuttal testimony.

A. My rebuttal testimony will focus on three overall topics: First, Mr. Gettings' proposal, endorsed by Mr. Cicchetti, represents a shift away from this Commission's existing policy and goals for the approved hedging programs. Second, further details and analysis are needed to develop specific updated hedging parameters and approaches as outlined in Mr. Gettings' summary testimony to ensure the hedging parameters, execution activities, and any additional required reporting are consistent with the Commission's desired approach and are reviewed and approved prior to implementation. Third, given the current status of its hedging activities for 2017, the Company believes any prospective changes to hedging activities should occur beginning no sooner than the submittal of the 2018 Risk Management Plan. This will allow time for the Company to work collaboratively with the parties to further develop, review, and submit any necessary updates to its existing, approved Risk Management Plan.

Q. Do the policy and objectives outlined in Mr. Gettings' proposal match the Commission's current hedging policy and objectives as outlined in its previous orders?

A. No. The policy and objectives as summarized in Mr. Gettings' proposed approach represent a shift away from current Commission policy and objectives. In Order No. PSC-08-0667-PAA-EI, Attachment A, page 2 of 3, the Commission recognized appropriate guiding principles for hedging practices, including:

a. The Commission finds that the purpose of hedging is to reduce the impact of volatility in the fuel adjustment charges paid by an IOU's customers, in the face of price volatility for the fuels (and fuel price-indexed purchase power energy costs) that the IOU must pay in order to provide electric service.

b. The Commission finds that a well-managed hedging program does not involve speculation or attempting to anticipate the most favorable point in time to place hedges. Its primary purpose is not to reduce an IOU's fuel costs paid over time, but rather to reduce the variability or volatility in fuel costs paid by customers over time.

c. The Commission endorses the goal of controlling volatility of fuel adjustment charges and finds that hedging is a useful tool for this purpose.

d. The Commission acknowledges that hedging can result in significant lost opportunities for savings in the costs to be paid by customers, if fuel prices actually settle at lower levels than at the time that hedges were placed. The Commission recognizes this as a reasonable trade-off for reducing customers' exposure to fuel cost increases that would result if fuel prices actually settle at higher levels than when the hedges were placed. The Commission does not expect an IOU to predict or speculate on whether markets will ultimately rise or fall and actually settle higher or lower than the price levels that existed at the time hedges were put into place.

In comparison, Mr. Gettings summarizes “[t]he purpose of hedging is to minimize customer pain associated with energy-price (or customer-cost) increases[]” and further “[i]t is self-evident that the primary reason for hedging is to mitigate upside cost exposures, and the potential for hedge losses is an associated consequence which needs to be managed as well.” (Gettings, p. 4, ll. 20-21 & p. 7, ll. 9-11). Therefore, the purpose or reason for hedging provided by Mr. Gettings is in conflict with the current policy.

DEF has designed and operated its existing, approved fuel-cost risk management activities to comply with the Commission’s guidelines expressed in Order No. 08-0667, and this Commission has found DEF’s hedging activities to be prudent towards achieving those goals. While the Commission retains its authority to alter its policies as it deems appropriate, a shift such as proposed by Mr. Gettings would redefine the current policy. In addition, specific risk, price, and/or cost parameters will need to be established to ensure the Company is operating within any new definition and policy that, if approved by the Commission, would include minimizing gas hedge costs while providing upside gas cost risk mitigation as a hedging program objective.

Q. On the second topic, can you elaborate on why the Company needs further details of Mr. Gettings’ approach and assumptions?

A. Yes. If the Commission desires to adopt in whole or in part the policies, strategies, and concepts provided by Mr. Gettings, the Company will work with the Commission, staff, and other parties to develop specific updated hedging parameters and approaches to ensure the resulting updated risk management plans, execution activities, and any required reporting are consistent with the Commission's desired approach to allow for review and approval prior to implementation.

However, additional details and clarifications are necessary because the proposal as it appears in Mr. Gettings' testimony does not provide the specificity necessary to guide development of a workable hedging program. To establish an updated hedging plan that follows a new hedging policy and definition utilizing concepts outlined by Mr. Gettings, the Company believes clear risk and hedging parameters need to be vetted and established up front to ensure understanding before execution approaches are altered.

To provide some illustrative questions requiring further clarification on approach and regulatory reviews, the Company would need direction on items such as what minimal percentage of "programmatic hedges" would be accepted and for what term? Would all of the companies be expected have the same percentage level of programmatic hedges? For the risk metrics proposed, is there a preferred method to be used for performing the underlying VAR calculations and is the Company to use a certain holding period and confidence interval to calculate the metrics outlined, or is that left to the Company's discretion? Using these risk metrics, if the Company determines a certain upside price level becomes a new hedging price target, who determines if this is a prudent price level to establish a defensive hedging strategy trigger? Does this price level need to be reviewed and approved by the Commission before it is implemented? What hedge-cost projections or hedge-cost actuals would trigger the Company to execute a prudent, Commission-approved contingent hedge strategy response, possibly involving selling previously executed programmatic and defensive hedges and possibly repeating the buying and selling of hedges in this manner as prices and volatility continue to adjust? Because changes in the relative prices of gas, coal, and power prices, as well as load forecast, can impact periodic gas burn projections used to monitor hedge percentages at any given point in time, would other analyses of these factors also be required with respect to impacts on overall potential costs and the percentage of hedge positions at any given point in time?

These questions are not intended to be all inclusive and not intended to be critical of the concepts submitted by Mr. Gettings. However, if the Commission elects to move in the direction recommended by Mr. Gettings, from the Company's perspective these questions outline the importance of having clear and specific direction on the parameters before an updated framework can be fully developed and established to ensure prospective plans are consistent with the Commission's direction. The Company believes workshop forum sessions with the Commission staff, the other companies, and other interested stakeholders would benefit all parties to ensure any new approach is implemented in a desired and consistent fashion. This would also provide time for the Company's fuel, risk, and quantitative personnel to fully understand and evaluate the needed calculations to support any new requirements and verify that calculations can be performed in a manner consistent with the concepts and any reporting requirements. Finally, within the context of the concepts summarized by Mr. Gettings, these working sessions will provide the opportunity for companies to work closely with the stakeholders to outline other hedging instruments and parameters that could be employed to accomplish the objectives Mr. Gettings outlined.

Q. Can you elaborate on the status of the Company's hedging activities under its currently approved plan and how this would impact the timing of implementing changes to hedging protocols?

A. Yes. Currently, DEF is hedging consistent with its approved 2016 Risk Management Plan and is near its 2017 target hedging percentage outlined in that plan. Thus, any changes the Commission may desire to implement consistent with Mr. Gettings' proposal would need to begin with periods no earlier than 2018. Therefore, the Company agrees with Mr. Cicchetti that the Commission should approve its submitted 2017 Risk Management Plan, which incorporates further hedging target reductions from those DEF proposed in Docket No. 160096-EI.

In addition, as summarized above, the Company needs further clarification on the concepts and protocols summarized by Mr. Gettings and time to familiarize itself with those concepts. With respect to the potential time needed for reviews and implementation, the Company would like to have further discussions with the stakeholders after gathering additional details on hedging parameters, execution approaches, and regulatory reviews to ensure a reasonable implementation schedule. I note that Mr. Gettings' *White Paper Regarding Utility Hedging Regulation* ("*White Paper*"), provided to the Washington Utilities and Transportation Commission ("WUTC") as part of its hedging policy review docket, included a milestone summary that outlined a full implementation period of roughly two and a half years. Mr. Gettings' summary testimony in this docket did not include such a draft working milestone schedule. DEF believes that if the Commission desires to implement this approach, part of the stakeholders' review should include development of any needed milestone schedule after additional information and details have been discussed.

Q. If the Commission desires to implement the changes being proposed, would the workshop sessions you have discussed result in unnecessary delay?

A. No. As noted herein, Mr. Gettings' proposal lays out a new framework for the financial hedging of natural gas that differs from the Commission's current policies and direction. Moreover, the framework provided in his testimony requires additional detail, analysis and discussion before it can form the basis of modified hedging parameters, execution strategies, and regulatory review. If the Commission decides that the concepts he outlines should be implemented, in my opinion the best forum for all stakeholders to come together and work out the details of how they can be implemented is a workshop, not an evidentiary hearing. That said, it should be recognized that implementation of these changes, if desired, will likely take time. Although I am not familiar with the details of what has occurred in the WUTC review, I note from a review of Mr. Cicchetti's Exhibit No. _ (MAC-4), page 3 of 3, and the online docket listing that the WUTC's review into natural gas hedging practices appears to have been open and ongoing since October of 2013, and Mr. Gettings' *White Paper* was filed over 14 months ago.[1] I provide this information not to suggest that this is the timeline that should be expected in

[1] http://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=132019.

Florida, but simply to underscore the point that if these changes are going to be implemented, it will likely take some time to review and ensure it is done consistent with any objectives.

Q. Does Mr. Gettings discuss the form of regulatory review the Commission should use to determine prudence under his proposal?

A. Yes. He briefly outlines that his regulatory review process is to require contemporaneous weekly risk measurement and monitoring from the customers' perspective, provided to the Commission quarterly. He states that "the very existence of contemporaneous weekly risk metrics will change behavior and eventually inform prudence determinations . . . Strategy formulation would be left to utility management, but after one-year of reporting risk metrics, I would expect strategies to reflect lower programmatic hedge targets, relying more heavily on defensive hedge protocols and contingent response plans to constrain hedge loss potential." (Gettings, p. 29, ll. 18-24). He also states "Later as experience is gained, the Commission might consider making a policy statement indicating a rebuttable presumption of prudence if key strategy elements are incorporated in the risk management plans and then executed per plan." (Gettings, p. 30, ll. 13-15).

Q. Do you have any observations regarding this regulatory review framework?

A. Yes. First, it is a framework for review that does not necessarily have a standard of review until "experience is gained" at which point certain undefined "key strategy elements" can be incorporated into the plan and then actions taken pursuant to the plan would carry a rebuttable presumption of prudence. Prior to the point where experience exists to guide the Commission's review, there is no discussion of what the Commission should use as a standard for evaluating a Company's risk management plan or what standards will be used to evaluate the prudence of the Company's hedging program executed pursuant to that plan. This is another area where a workshop and further discussion would be beneficial for all stakeholders to gather additional information and specific criteria that would guide the Commission's review.

Q. Are the lack of clear and defined upfront standards described above your only observation?

A. No. I am also concerned that, given the proposed shift in goals from a reduction in fuel price volatility to a management of fuel cost risks while balancing both mitigation of upside cost risks as well as potential hedge costs, the annual fuel clause proceeding could become bogged down in an after-the-fact review of any and all individual hedging transaction decisions made by the Company, but with the benefit of perfect hindsight. Without some prescribed standards or specific objective parameters, this could require the Commission to perform a subjective review of potentially hundreds of transactions, after the fact, substituting its judgment for the previously approved hedging plans. This subjective review approach has the potential to call into question the importance of the approved risk management plan and a company's ability to rely on the parameters established in the approved plan, reducing regulatory certainty.

Q. What statement in Mr. Cicchetti's testimony did you want to address?

A. With respect to one comment made in Mr. Cicchetti's testimony, on page 16, lines 3-4, Mr. Cicchetti states that DEF's proposed 2017 Risk Management Plan does not reflect the modifications proposed in Docket No. 160096-EI, which could be misunderstood. To clarify, as described in the Plan itself, in light of the discussions held during the Agenda Conference approving the joint petition, DEF made further reductions from those proposed in the joint petition to its hedging target ranges for the 13-24 month and 25-36 month timeframes.

Q. Do you have any observations regarding Mr. Daniel Lawson's Testimony?

A. Yes. As part of effective fuel cost management, DEF believes managing fuel price volatility risk over time for a portion of its projected fuel costs is a prudent risk management practice given its fuel mix. It is proper for the Commission to review, and if it determines it is necessary to do so, to revise or eliminate its policies regarding financial hedging of natural gas. The Commission's hedging program acts to serve customer interests and not the interests of the Company. We agree that customer views and opinions on these policy issues are important for the Commission to consider. If the Commission determines that hedging should be changed, revised, eliminated, reduced in scope, or replaced with something new, DEF will comply with the Commission's will.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

REBUTTAL TESTIMONY OF GERARD J. YUPP

DOCKET NO. 160001-EI

SEPTEMBER 30, 2016

Q. Please state your name and address.

A. My name is Gerard J. Yupp. My business address is 700 Universe Boulevard, Juno Beach, Florida, 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power and Light Company ("FPL") as Senior Director of Wholesale Operations in the Energy Marketing and Trading Division.

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

A. Yes.

Q. Are you sponsoring any rebuttal exhibits in this case?

A. No.

Q. What is the purpose of your rebuttal testimony?

A. The primary purpose of my testimony is to urge caution about moving forward with a risk-responsive hedging approach based on the limited support and evidence contained in the testimonies of Staff witnesses Michael A. Gettings and Mark Anthony Cicchetti. In addition, I will rebut the testimony of OPC witness Daniel J.

Lawton and his flawed contentions that hedging does not provide a benefit to customers and should be discontinued.

Q. Please summarize your rebuttal testimony.

A. My rebuttal testimony expresses concerns regarding the conclusion drawn by Staff witnesses Gettings and Cicchetti that risk-responsive hedging strategies are superior to fixed-percentage strategies. Witness Gettings has not provided any meaningful detail regarding the calculations he presents to support this conclusion. He has not included in either his narrative testimony or exhibits the specific data and calculations that would be necessary to properly evaluate the risk-responsive hedging approach. Based on this incomplete analysis, witness Cicchetti's recommendation that the Commission implement a risk-responsive hedging protocol because the analysis supposedly shows that it would be superior to a fixed-percentage approach and help limit losses to customers is premature.

While FPL agrees with witnesses Gettings and Cicchetti that hedging has been and can continue to be beneficial to customers in reducing their exposure to fuel price volatility, FPL is concerned that implementing a risk-responsive hedging strategy today would not be appropriate without a full and transparent evaluation. If there is merit in witness Gettings' proposal, then a full review of all of the parameters and calculations used in his analysis should be conducted. Furthermore, a more in-depth discussion regarding how risk-responsive parameters are defined and how those parameters fit into the framework of the existing Hedging Guidelines would be necessary.

Witness Lawton's testimony reiterates the arguments for discontinuing hedging that the Commission rejected last year. He cites the Energy Information Administration's ("EIA's") Short Term Energy Outlook Publication for the proposition that natural gas prices are low and stable, but the very same publication shows a significant range between the prices at the upper and lower 95% confidence levels, with more than twice the exposure to price increases than there is to price decreases. This volatility and the asymmetry of its distribution suggests that hedging remains beneficial for customers.

Finally, witness Lawton also touts a fuel cost recovery mechanism used by Entergy Texas Inc. ("ETI") as an alternative to hedging, but once the mechanism's mathematical calculations are understood, it becomes clear that the end result is a projection of fuel costs based on NYMEX forward curve settlement prices that is very similar to how FPL projects unhedged fuel costs. The ETI mechanism offers none of the volatility protection afforded by Florida's hedging program.

STAFF WITNESSES GETTINGS AND CICCHETTI

Q. In your opinion, does witness Gettings' testimony provide sufficient detail to support his conclusion that implementing a risk-responsive hedging strategy would provide superior results to a fixed-percentage approach?

A. No. First, to be clear, FPL's intent is not to discredit the risk-responsive hedging approach presented by witness Gettings. FPL agrees that it is intuitively appealing and may have promise. However, FPL is concerned that implementing a risk-responsive approach based solely on the limited information presented by witness Gettings would be premature. His conclusion is based on simulations that he ran for the period from 2002 through 2011, utilizing forward prices and both risk-responsive and fixed-percentage hedge strategies.

Unfortunately, witness Gettings fails to provide the set of risk-responsive decision rules (parameters) he utilized in the simulation or the detailed calculations behind the graph he provided in Table 6 on page 22 of his testimony. Nor does he provide an adequate justification for excluding the most recent four full years of available data (i.e., 2012-2015) from his analysis. Thus, while the results appear promising, FPL would need to have a better understanding of his detailed decision rules and the calculations he performed in order to fully evaluate the simulations.

Q. Has FPL attempted to apply witness Gettings' risk-responsive methodology to FPL's own hedging framework to evaluate how the different strategy would work?

A. Yes. FPL attempted to test witness Gettings' methodology by applying the risk-responsive hedging principles he describes in his testimony and in his paper titled, "*Natural Gas Utility Hedging Practices and Regulatory Oversight*" that he prepared for the Washington Utilities and Transportation Commission in July 2015 to three historical months (February 2014, August 2015, and August 2016). FPL then compared those results to the actual results of its fixed-percentage hedge program for the three months.

Q. What are the results of FPL's analysis?

A. First, it is important to note that FPL was not able to perform a complete analysis of witness Gettings' risk-responsive approach due to his failure to provide specific input data and the absence of any technical justifications for the parameters he established, such as action boundaries, the initial hedge ratio, and the maximum hedge ratio. In the absence of that information, FPL defined three separate cases for each month with varying decision parameters within the general framework provided by witness Gettings. This methodology created three separate risk-responsive cases for each month tested, that FPL compared to its actual fixed-percentage results for each month.

The results of FPL's analysis showed that the risk-responsive approach did not always outperform FPL's fixed-percentage approach. For example, the results of FPL's analysis for February 2014 showed that FPL's fixed-percentage strategy was superior to all three risk-responsive cases by a minimum of nearly $11 million. For the August 2015 analysis, FPL's actual results of its fixed-percentage strategy were worse than the best risk-responsive case by approximately $19 million. Finally, FPL's analysis for August 2016 showed that its fixed-percentage strategy ranked second of the four cases, coming in at slightly more than $3.5 million higher in costs as compared to the best risk-responsive case, but nearly $13 million lower in cost than the least effective risk-responsive case.

Q. Do these results mean that implementing risk-responsive hedging strategies could not prove to be an appropriate course of action?

A. No. As I stated previously, the results that witness Gettings provides appear promising. On the other hand, FPL's analysis clearly underscores the sensitivity of the risk-responsive approach to the decision parameters that are set, which highlights FPL's concerns related to the lack of detail provided by witness Gettings on how he arrived at his results. Prior to making the significant change in hedging that would result from mandating a risk-responsive approach, a deeper dive into the technical details and rationale for setting discretionary parameters should be completed in a transparent manner. All parties must fully understand the risk-responsive approach, including the pros and cons of this strategy. Implementing this strategy prior to a thorough review and understanding is premature.

Q. On page 14 (Lines 6 through 11) of his testimony, witness Cicchetti indicates that while Staff was conducting research regarding financial hedging of fuel costs by regulated utilities, they became aware of risk-responsive hedge strategies and that an "analysis of the risk-responsive hedging strategies indicated they are superior to the typical targeted-volume approach generally practiced by regulated investor-owned utilities and should help minimize potential losses to customers." Does witness Cicchetti present or discuss any analysis in support of that conclusion?

A. No. Witness Cicchetti presumably has data that clearly supports the conclusion that risk-responsive hedging strategies are superior to a fixed-percentage approach, but his testimony does not provide or discuss that data. In the absence of further information, it is not possible at this time for FPL to evaluate his conclusion.

Q. In his Exhibit MAC-4, witness Cicchetti provides a summary of the results from a hedging practices survey that was conducted by the Commission's Division of Industry Development and Market Analysis ("IDM") on other state commissions. From the list of respondents, do the survey results indicate that other states have mandated the implementation of a risk-responsive hedging strategy?

A. No. As described in witness Cicchetti's testimony, twelve states responded to the survey, and none of those respondents has mandated a risk-responsive hedging strategy. In fact, risk-responsive hedging strategies are not mentioned in any of the summaries provided by witness Cicchetti.

Particularly telling is the fact that the Washington Utilities and Transportation Commission has not mandated the implementation of a risk-responsive hedging program. Presumably, witness Gettings has been working with the Washington Commission on risk-responsive hedging since July 2015. The apparent reluctance of that commission to move quickly toward a risk-responsive approach reinforces my opinion that implementation of risk-responsive hedging without careful vetting would be premature. Clearly, this type of hedging program would be a significant departure from this Commission's current approach and, if a change is warranted, it will take time to properly implement.

Q. Does FPL have any other concerns regarding the risk-responsive hedging approach?

A. Yes. If the Commission were to decide that the utilities should adopt a risk-responsive approach, the implementation of this approach should take place within the framework of the existing Hedging Guidelines that were approved in Order No. PSC-08-0667-PAA-EI issued on October 8, 2008. The Commission and the IOUs worked hard to establish hedging guidelines that provide a comprehensive framework for hedging. These guidelines and the requirements contained therein give the IOUs confidence that if they execute hedging activities in accordance with their approved Risk Management Plans, they will not be second-guessed about those activities later.

To provide this same degree of confidence for the implementation of a risk-responsive hedging approach, key parameters that may significantly impact results, such as the initial hedge ratio, action boundaries, hedging increments, the max hedge ratio and appropriate contingent actions, should be clearly spelled out in each utility's Risk Management Plan. Once these parameters are defined in the Risk Management Plan, the utility should be deemed prudent if it implements its hedging program in accordance with the defined parameters.

Q. What does FPL suggest is the appropriate course of action for this Commission to evaluate risk-responsive hedging?

A. FPL believes that it would be appropriate for the Commission to hold a series of workshops in which Staff, the Florida IOUs and other interested parties could address, first, whether the risk-responsive approach is indeed likely to outperform the existing fixed-percentage approach in a sufficiently wide range of fuel-price scenarios and decision parameters to warrant adopting it; and, if so, how it could be effectively implemented and monitored in a manner that protects customers and the IOUs alike.

Q. On page 15, Line 25 through page 16, Line 4, witness Cicchetti states that FPL's, DEF's and TECO's 2017 Risk Management Plans do not reflect the modifications proposed in the Joint Petition by Investor-Owned Utilities for Approval of Modifications to the Risk Management Plans ("Joint Petition") filed on April 22, 2016 in Docket No. 160096-EI. Is this statement correct for FPL?

A. No. FPL has modified its 2017 Risk Management Plan consistent with the modifications proposed in the Joint Petition by Investor-Owned Utilities for Approval of Modifications to Risk Management Plans filed on April 22, 2016 in Docket No. 160096-EI. Specifically, FPL's 2017 Risk Management Plan for 2018 procurement reflects a 25% reduction of natural gas hedges from the target approved in FPL's 2016 Risk Management Plan and FPL's 2017 Risk Management Plan reflects a limit on the future time horizon over which hedges may be placed.

Q. On page 14 (Lines 19 through 23) of his testimony, witness Cicchetti recommends that the Commission implement the modifications requested in the Joint Petition by the IOUs to their respective 2017 Risk Management Plans on a transitional basis until a risk-responsive hedging protocol can be implemented. Does FPL agree with this approach?

A. Yes. FPL believes that it would be reasonable for the Commission to approve FPL's 2017 Risk Management Plan and thus allow FPL to place hedges in 2017 consistent with it, while the Commission could proceed if it wishes with workshops to discuss the risk-responsive approach and its potential implementation.

OPC WITNESS LAWTON

Q. Witness Lawton recommends the elimination of financial natural gas hedging for many reasons, including substantial hedging losses, current and projected stable market prices, and the current fuel factor design and mid-course correction mechanism. Do you agree with his assessment?

A. No. Witness Lawton has essentially provided the same arguments in testimony that he provided in last year's proceeding. In fact, he has included his prior testimony as an exhibit to his current testimony, and it comprises the majority of the pages that he filed. The Commission did not find his arguments to be persuasive in that proceeding and should not find them so in this proceeding.

Witness Lawton makes very general observations and broad statements regarding stable market prices and reduced volatility without providing supporting data. For example, he provides the EIA's forecast of $2.87/MMBtu for the average Henry Hub price in 2017 and EIA's prediction of "low stable natural gas prices over the short-run forecast." He goes on to state that "price volatility is not expected to be an issue," without providing any factual support.

In the same Short-Term Energy Outlook publication that included the forecast price of $2.87/MMBtu, the EIA also provided an analysis of that forecast's upper and lower 95% confidence intervals. The corresponding upper and lower limits are $5.40/MMBtu and $1.80/MMBtu, respectively. This is a substantial price range, which demonstrates that, contrary to witness Lawton's claim that volatility is not an issue, volatility remains an issue in the natural gas market. FPL provided a similar analysis for 2018 natural gas prices in response to OPC's Third Request for Production of Documents No. 4, which further confirmed that volatility remains in the natural gas market.

Q. Staff witnesses Gettings and Cicchetti observe that natural gas prices are lognormally distributed, meaning that the magnitude of significant cost increases tends to be much greater than the magnitude of significant cost decreases. Does the EIA data that you referenced above illustrate this asymmetry?

A. Yes. In simple terms, the EIA's analysis shows that, based on an expected average price of $2.87/MMBtu, one could be 95% confident that average prices would be higher than $1.80/MMBtu and lower than $5.40/MMBtu. The asymmetry between these lower and upper limits is readily apparent: the lowest probable average price is $1.07/MMBtu below the expected average price, while the highest probable average price is $2.53/MMBtu higher than the average expected price. I made this same point in my rebuttal testimony in last year's proceeding. Finally, it is worth noting that both witnesses Gettings and Cicchetti point to an additional asymmetry that supports the value of hedging: customers derive greater value from hedging cost mitigation than they forego from hedging losses.

Q. On pages 17 and 18 of his testimony, witness Lawton presents what he describes as a financial hedging alternative based on an example of how ETI calculates its bi-annual fuel factor. Is the ETI methodology a valid alternative to hedging?

A. No. In fact, the mathematical consequence of the ETI methodology is almost identical to the methodology that FPL currently uses to set its fuel factors on an annual basis. In examining the relevant steps of the nine-step process that witness Lawton describes, it appears that ETI takes its actual natural gas costs for the prior twelve months and then multiplies those costs by a market factor that is the ratio of the next 12 months NYMEX settlement prices and the prior 12 months NYMEX settlement prices. The result of this calculation yields projected fuel costs for the next six months that are based on NYMEX settlement prices.

FPL also utilizes NYMEX forward curve settlement prices to calculate its projected natural gas costs for the following year. For example, FPL's 2017 Projection Filing is based on monthly NYMEX settlement prices for 2017 as of the close of business on August 1, 2016. So, at the end of the day, ETI is setting its fuel factors on the basis of NYMEX settlement prices, just the same as FPL does. Unfortunately, ETI stops there, while FPL does not. Setting a fuel factor based on NYMEX forward curve settlement prices, regardless of the mathematical steps taken to get there, does not provide any protection against the volatility that exists between the forward curves and actual spot prices that will prevail when the fuel is actually purchased. It is no alternative to hedging.

Q. On page 19 of his testimony, witness Lawton goes on to claim that ETI customers have no risk of suffering hedging losses. What is your reaction to this statement?

A. This statement is true but misleading. ETI customers have no risk of suffering hedging losses, because the ETI approach doesn't provide any of the volatility mitigation that is achieved by hedging. Witness Lawton fails to mention that ETI customers bear 100% of the risk if prices increase.

Q. Does this conclude your testimony?

A. Yes it does.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

SUPPLEMENTAL TESTIMONY OF GERARD J. YUPP

DOCKET NO. 160001-EI

OCTOBER 19, 2016

Q. Please state your name and address.

A. My name is Gerard J. Yupp. My business address is 700 Universe Boulevard, Juno Beach, Florida, 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power and Light Company ("FPL") as Senior Director of Wholesale Operations in the Energy Marketing and Trading Division.

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

A. Yes.

Q. Are you sponsoring any supplemental exhibits in this case?

A. Yes. I am sponsoring the following supplemental exhibit:

GJY-8: Alternative 2017 Risk Management Plan.

Q. What is the purpose of your supplemental testimony?

A. The purpose of my supplemental testimony is to present FPL's Alternative 2017 Risk Management Plan, in implementation of Paragraph 16 of the proposed stipulation and settlement of FPL's rate case in Docket No. 160021-EI and consolidated dockets that was filed on October 6, 2016 (the "Proposed Settlement Agreement") in the event the Commission approves the Proposed Settlement Agreement. Paragraph 16 provides for FPL to terminate natural gas financial hedging prospectively for the Minimum Term of the Agreement and to make filings to implement such termination in Docket No. 160001-EI and subsequent fuel clause proceedings. Accordingly, FPL has prepared an Alternative 2017 Risk Management Plan to reflect the requirements of the Proposed Settlement Agreement, if approved.

Q. Has FPL previously filed a 2017 Risk Management Plan for Commission approval?

A. Yes. Pursuant to the schedule in this docket, FPL filed its 2017 Risk Management Plan on August 4, 2016 (the "August 4 Plan").

Q. How does the Alternative 2017 Risk Management Plan differ from the August 4 Plan?

A. Consistent with Paragraph 16 of the Proposed Settlement Agreement, the Alternative 2017 Risk Management Plan states that FPL will financially hedge zero percent of its 2018 natural gas requirements during calendar year 2017. The Alternative 2017 Risk Management Plan is attached to this supplemental testimony as Exhibit GJY-8. FPL requests that the Alternative 2017 Risk Management Plan be approved if the Proposed Settlement

Agreement is approved; otherwise, FPL would continue to request that the Commission approve the August 4 Plan.

Q. Does Paragraph 16 of the Proposed Settlement Agreement require FPL to revise its approved 2016 Risk Management Plan?

A. No. Paragraph 16 requires that FPL not enter into any new financial natural gas hedging contracts after the approval date, "except as may be necessary for FPL to remain in compliance to the minimum extent practicable with the requirements of its currently approved Risk Management Plan." FPL's 2016 Risk Management Plan was approved by the Commission in Docket No. 150001-EI and therefore is "currently approved." If the Commission approves the Proposed Settlement Agreement, then consistent with Paragraph 16, FPL will execute only the minimum hedges necessary to remain in compliance with the 2016 Risk Management Plan.

Q. Does this conclude your testimony?

A. Yes it does.

GULF POWER COMPANY

Before the Florida Public Service Commission
Prepared Rebuttal Testimony of
H. R. Ball
Docket No. 160001-EI
Date of Filing: September 30, 2016

Q. Please state your name and business address.

A. My name is H. R. Ball. My business address is One Energy Place, Pensacola, Florida 32520-0335. I am the Fuel Manager for Gulf Power Company.

Q. Are you the same H. R. Ball who filed direct testimony in this docket?

A. Yes.

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

A. The purpose of my testimony is to respond to the direct testimony of the Office of Public Counsel's Witness Daniel J. Lawton and Staff's Witnesses Mark Anthony Cicchetti and Michael A. Gettings.

Q. Does Gulf agree with Witness Lawton's conclusions regarding the continuation of Gulf's natural gas financial hedging programs?

A. No. Gulf believes that continued compliance with the Commission's existing hedging policy as embodied in the orders referenced by Mr. Cicchetti provides an appropriate fuel risk management tool for utilities to utilize to limit natural gas price volatility. Witness Lawton's testimony is largely the same as that which he offered in the 150001-EI docket. He provides no new information or analysis that would reasonably support a conclusion on this issue that differs from the conclusion reached by the Commission in the 150001-EI docket.

Q. Please address the hedging policy alternative recommended by Staff Witness Michael A. Gettings.

A. Witness Gettings recommends the development and implementation of a risk-responsive hedging program. Witness Gettings provides only a general framework of a risk-responsive hedging program. Insufficient details have been provided about what parameters should be established, or how such a hedging plan could be implemented by the Commission. More information about the structure and implementation of a risk-responsive hedging program should be developed before the Commission considers changing its current hedging policy. Adoption of this type of hedging program would be a substantial change in the Commission’s hedging policy.

Q. Did Witness Gettings discuss specific examples of risk-responsive hedging programs being utilized by regulated investor owned utilities?

A. No. He stated, “[t]here is the regulated investor-owned utility segment which most often deploys targeted-volume hedge accumulation programs like those reflected in the 2017 RMPs.” From this statement it appears that risk-responsive hedging programs have not been approved for regulated investor owned utilities.

Q. Is there an incremental cost to implementing a risk-responsive hedging program?

A. Yes. Based on a preliminary review of the general program as outlined by Witness Gettings, there would be additional time and resource costs to Gulf and likely to the Commission. The proposed risk-responsive hedging program would require additional analysis work to be performed, weekly documentation, the development and implementation of new internal governance procedures, and additional regulatory filings and audits. The lack of details around exactly what a risk-responsive hedging program would look like and how it would be implemented makes estimating these additional costs very difficult at this point, but any such incremental costs should be recovered in the fuel cost recovery docket.

Q. Do you agree with Witness Cicchetti's recommendation that the modifications requested by Gulf in its Risk Management Plan (RMP) in Docket No. 160096-EI and implemented in its 2017 RMP filed in Docket No. 160001-EI be approved?

A. Yes. Mr. Cicchetti acknowledged that it may be difficult to implement a risk-responsive program as suggested by Mr. Gettings in 2017 and therefore recommended approval of Gulf's 2017 RMP as an interim measure. We agree with Mr. Cicchetti's assessment. Our proposed plan for 2017 meets the Commission's current hedging policy and should be approved.

Q Mr. Ball, does this conclude your rebuttal testimony.

A Yes.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED REBUTTAL TESTIMONY

OF

J. BRENT CALDWELL

Q. Please state your name, business address, and position with Tampa Electric Company.

A. My name is J. Brent Caldwell. My business address is 702 N. Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company ("Tampa Electric" or "company") as Director, Fuel Planning and Services.

Q. Are you the same J. Brent Caldwell who has sponsored Direct Testimony is this proceeding?

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony?

A. My rebuttal testimony addresses the substance and recommendations of witnesses Michael A. Gettings and Mark Anthony Cicchetti, testifying on behalf of the Commission's Staff.

Q. What is your overall impression of the substance of witness Gettings's and Cicchetti's testimonies?

A. I believe both of their testimonies demonstrate that the appropriate choice for hedging policy is a judgment call. I don't believe that either witness would dispute the fact that mitigating the volatility of natural gas prices and the prices of other fuels is a laudable goal; in fact, witness Gettings's testimony suggests that hedging provides benefits to customers.[1] On the other hand, Tampa Electric is also aware of the concerns raised by many regarding hedging losses.

Tampa Electric has heard, and shares concerns regarding hedging losses. The company still believes that mitigating price volatility through hedging has merit. In light of concerns raised in recent years by the Office of Public Counsel and the Florida Industrial Power Users Group, the investor-owned utilities offered to make a 25 percent reduction in the level of their financial hedging of natural gas.[2] With the Commission order approving that reduction having been protested,

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[1] For example, Michael A. Gettings testimony, pp. 4-5, submitted on September 23, 2016, in Docket No. 160001-EI; and general consideration of this witness's proposal as submitted in the same document.

[2] This plan is described in the joint petition of the four investor-owned utilities, submitted on April 22, 2016 in Docket No. 160096-EI.

Tampa Electric's risk management plan for 2017 adheres to the hedging model last approved by the Commission, prior to the 25 percent proposed reduction that was protested.

Q. Is Tampa Electric willing to consider modifications to the Commission approved hedging model?

A. Yes, we are. Tampa Electric maintains that the most appropriate change to the Commission approved hedging model at this time is the 25 percent reduction in maximum hedging volumes and the proposed change in hedging duration described in the joint petition of the four investor-owned utilities. The company remains willing to implement prospective reductions in hedging maximum volumes and duration as described in that proposal.

Q. Is Tampa Electric willing to consider additional modifications to the Commission approved hedging model?

A. Yes. Tampa Electric conducts natural gas hedging to mitigate price volatility for the benefit of customers, and the company remains willing to implement changes the Commission determines are in the best interest of customers. During the June 9, 2016 Commission Conference at which the utilities' joint petition was considered, other alternatives were suggested by Commissioners. Tampa Electric is willing to consider those hedging program modifications. If the Commission approves a different set of modifications to the current hedging plan, then Tampa Electric will implement those changes on a prospective basis. In addition, Tampa Electric has reviewed the testimony of the witnesses appearing on behalf of the Commission's Staff, and the company agrees that there are many ways to address the issue of hedging. Again, when all is said and done, it is a judgment call.

Q. What type of hedging program does Tampa Electric currently utilize and what is its purpose?

A. Tampa Electric employs a non-speculative, targeted-volume financial hedging program for natural gas. The program's purpose is to mitigate price volatility for natural gas fuel expenses.

Q. Please describe the advantages of the targeted-volume hedging approach.

A. The advantages of the targeted-volume hedging approach include the following factors: 1) it reduces price volatility; 2) over time it should yield a net zero cost; 3) it is manageable from both a corporate trading standpoint and a regulatory oversight standpoint; 4) it does not attempt to outguess the market and, in fact, does not allow market speculation; 5) it is relatively simple to understand and administer; and 6) it clearly fits within the Commission's guidelines as a non-speculative hedging program.

Q. What is Tampa Electric's assessment of the risk-responsive hedging program proposed by witnesses Gettings and Cicchetti?

A. Tampa Electric is not aware of any regulated utility using witness Gettings's risk-responsive approach to fuel hedging. His proposal represents a significant departure from the currently approved hedging protocol and Tampa Electric is uncertain of its effectiveness. The value of a risk-responsive approach to hedging is likely dependent on various factors, including but not limited to, the selection of the various thresholds and trigger points that apply under such a risk-responsive program.

Q. Do you have any concerns about the proposal recommended by the witnesses Gettings and Cicchettti?

A. Yes, I have three primary concerns regarding the proposal recommended by witnesses Gettings and Cicchetti. They are (1) the lack of specificity in witness Gettings risk-responsive hedging proposal; (2) the 2018 effective date for risk-responsive plans recommended by witness Cicchetti, given the time that such a change requires for analysis and target-setting prior to implementation, and (3) the potential uncertainty regarding appropriate or prudent hedging activities, actions and results.

Q. Please explain your concerns regarding the lack of specificity in witness Gettings's proposal and the time involved to implement his proposal.

A. The implementation of a risk-responsive approach to hedging represents a paradigm shift from the current methods of hedging by most regulated utilities in the United States of America. As the witness states, at page 8, lines 7 through 9, of his testimony, the regulated investor-owned utility segment "most often deploys targeted-volume hedge accumulation programs like those reflected in the [Florida utility] 2017 RMPs." Based on the limited time the company has had to review and respond to this proposal, this represents a major change from the current methods of hedging. Without clearly defined goals, guidelines and risk measures, witness Gettings's proposal cannot be reliably implemented and its performance cannot be fairly evaluated. In the event this approach is adopted, a considerable period of time will be needed to define and develop new programs to implement this approach.

Q. Please describe your concerns with the time horizon to implement the proposal put forth by witness Gettings, as suggested by witness Cicchetti.

A. As I previously stated, if approved, significant time will be needed to adopt guidelines under which a risk-responsive hedging program can be implemented, measured and evaluated.

Q. Please explain your concerns regarding prudence review.

A. Witness Gettings's risk-responsive hedging strategy may not be appropriate in a regulated environment. Throughout his testimony, he uses terms such as "reasonable response time", "tolerable losses", and "unusually high risk". All of these terms are subjective, which leads to significant concerns regarding appropriate implementation and prudence review. Witness Gettings's expectation seems to be that with a year of reporting numerous financial quantification calculations, each utility will then be expected to "formulate a strategy" that may use all of the same technical measures, but use varying "confidence levels", tolerances, and "interim thresholds".

The current hedging program reduces price volatility, as it is designed to do. If the desire is for utilities to implement a hedging program with different goals, these new goals must be specified and approved by the Commission. These goals will inform the selection of various technical measures, including tolerance points at which the price may be too high or too low and the risk management protection should be implemented. In the risk-responsive approach witness Gettings recommends, the tolerance levels, confidence levels, holding period, and many other factors are undetermined or undefined. Without clear definitions and revised hedging guidelines, Tampa Electric would be concerned about using the risk-responsive approach.

And, even with the time to study, select and define the risk-responsive parameters and memorialize them for guidance with the utilities, it still seems that the implementation of the "risk responsive" strategy would be ripe for charges of speculation or imprudence. The primary objective of the current Commission hedging guidelines and utility hedging programs is to mitigate price volatility while avoiding price speculation. A simple way to mitigate price volatility is to employ fixed price swaps. Placing hedges on a targeted-volume basis throughout the year also avoids speculation. The discretion to determine when to hedge is effectively removed, so that an individual or company cannot attempt to outguess the market. Witness Gettings describes these as programmatic hedges. His testimony supports the use of programmatic, defensive and contingent hedges. If the witness's suggestion to implement the risk-responsive hedging approach and the use of defensive and contingent hedges were adopted, Tampa Electric would have concerns about how the utility's hedge performance would be evaluated. Without clearly defining the appropriate actions, targets, triggers, and so forth, that are applicable under such a hedging plan, the utilities could be criticized based on hindsight. Uncertainty as to how prudence will be determined exposes the company to the risk of disallowances due to assertions of imprudent hedging, and this is a risk the company is loath to assume, as it conducts hedges solely to benefit customers. As noted in the testimony of witness Cicchetti, this concern was considered by the Commission when the 2008 Hedging Guidelines were developed and adopted.[3]

Q. Are there any other issues you want to address regarding the recommendations from the Commission Staff's witnesses?

A. Yes, there are two other issues I would like to address. First, witness Cicchetti's recommended 2017 implementation date for the additional weekly and quarterly reporting requirements recommended by witness Gettings is a concern. Producing these reports would require incremental work and time, and while new reporting metrics can be developed, I believe further discussion is needed to define the metrics. Furthermore, I am not certain that such reporting would provide a benefit prior to the selection of a new hedging program.

[3] Mark A. Cicchetti testimony, pp. 9-10, submitted on September 23, 2016, in Docket No. 160001-EI.

Second, implementing the risk-responsive approach to hedging could cause the utility to incur incremental personnel and systems costs for the enhanced and continuous monitoring, reporting and quantitative analysis recommended by witness Gettings. In this case, I suggest those incremental hedging costs should be deemed eligible for recovery through the fuel clause until the time of the utility’s next base rate case, as was approved when the hedging programs were initially implemented. These costs are not otherwise recovered in rates.

Q. Please summarize your rebuttal testimony.

A. Tampa Electric recommends approval of the utilities’ joint petition for a reduction in the volume and duration of natural gas hedges. With regard to the risk-responsive approach recommended by witness Gettings, I am not sure that the approach is appropriate for Florida investor-owned electric utilities and their customers. If the Commission decides to make changes to hedging guidelines, then time is needed to reset the goals and guidelines. If the Commission decides to approve the risk-responsive hedging protocol suggested by witness Gettings, then time is needed to develop detailed definitions of terms, measurement tools and appropriate actions. Under this risk-responsive approach, the utilities would also need to be able to refer to a defined set of expectations and guidelines under which this new hedging strategy should be applied and under which prudence would be determined.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

CHAIRMAN BROWN: Moving on to exhibits.

MS. JANJIC: Staff has compiled a stipulated Comprehensive Exhibit List which includes the prefiled exhibits attached to the witnesses' testimony as well as staff's Exhibits 67 through 114. The list was provided to the parties, the Commissioners, and the court reporter. At this time, staff requests that the Comprehensive Exhibit List be marked for identification purposes as Exhibit No. 1 and that the other exhibits be marked as set forth in the Comprehensive Exhibit List.

CHAIRMAN BROWN: Thank you. They are all marked, as you mentioned. Thank you.

(Exhibits 1 through 114 marked for identification.)

MS. JANJIC: Thank you.

MR. BREW: Excuse me, Madam Chairman.

CHAIRMAN BROWN: Yes, Mr. Brew.

MR. BREW: I believe it's up -- we're up to 115, not 114.

CHAIRMAN BROWN: She's going to get to that. Just one second. Okay.

MS. JANJIC: After the Comprehensive Exhibit List was finalized, PCS Phosphate requested to add an additional exhibit to the list, the PCS Phosphate's first set of interrogatories to DEF No. 1 including

Excel file Attachment PCS-A. The exhibit was provided to the parties, the Commissioners, and the court reporter prior to this hearing.

At this time, staff requests that this exhibit be marked for identification purposes as Exhibit No. 115.

CHAIRMAN BROWN: We will do that.

(Exhibit 115 marked for identification.)

And let's get to moving the exhibits now into the record.

MS. JANJIC: Staff requests that the Comprehensive Exhibit List, which we just marked as Exhibit No. 1, be entered into the record.

CHAIRMAN BROWN: Seeing no objections from any of the parties, we will go ahead and move into the record Exhibit 1.

(Exhibit 1 admitted into the record.)

How about Exhibits 2 through 115?

MS. JANJIC: We ask that those exhibits be moved into the record as set forth in the Comprehensive Exhibit List.

CHAIRMAN BROWN: Any objections to entering those into the record? Seeing none, we'll go ahead and move Exhibits 2 through 115 into the record.

(Exhibits 2 through 115 admitted into the record.)

MS. JANJIC: And we ask that Exhibit No. 115 be moved into the record as well.

CHAIRMAN BROWN: Oh, I did that. We did that.

MS. JANJIC: Oh, I'm sorry.

CHAIRMAN BROWN: We went ahead and did that.

All right. Bringing it back to the bench and the decision.

MS. JANJIC: As of this morning, the parties have reached Type 2 stipulations on all of the issues. Type 2 stipulations reflect stipulations upon which certain parties agree and the remaining parties take no position on the proposed stipulation.

Staff believes it is appropriate the Commission make a bench decision on the stipulated issues listed in the Prehearing Order on pages 23 through 51, including Issue 1B as it was discussed today. Staff is available to answer any questions regarding the proposed stipulations.

CHAIRMAN BROWN: Okay. And thank you. And just to clarify from where we were in the prehearing, so all issues, as we've just discussed, are stipulated. There are no contested issues, and there will be no briefs if the Commissioners vote to approve all the stipulations.

MS. JANJIC: That is correct. All issues have been stipulated.

CHAIRMAN BROWN: Okay. Thank you for the clarification.

All right. Commissioners, questions for folks?

Commissioner Brisé.

COMMISSIONER BRISÉ: Yeah. No questions, just a comment. I think that we are in a good place with respect to the hedging. I think it addresses the concerns of some of the parties and it allows us to really take a deep dive into seeing if the hedging program, the way it's run today, is appropriate for Florida and allows us to take a look at that and have input from all of the parties and all the citizens who are interested in this issue, and that way we can come to a conclusion that makes sense for us moving forward. So I think this addresses the need that exists at this moment.

CHAIRMAN BROWN: Thank you, Commissioner Brisé.

Commissioners, any questions?

I have a question for staff just on process. PCS is supportive of the stipulation. As a result, from what we heard today of having discussions, a workshop early in the year, can you just confirm that staff intends to have those -- the workshop planned for early in the year?

MS. BROWNLESS: Yes, ma'am. I think staff does intend to have a workshop as soon as possible, hopefully in January.

CHAIRMAN BROWN: Can you lay out the process for us as it relates to 2017? So what will we expect to see?

MS. BROWNLESS: My understanding is what we'll do is have a workshop. I believe Mr. Gettings will be attending that workshop, as will all of our staff. He will discuss his proposal in more detail so people can understand the exact mechanics of how that works. And then if we need to have -- we'll get reactions from all the parties as to what modifications, if any, they feel need to be done, what's appropriate for them. And then we'll try to come up perhaps with a second workshop, if that's necessary.

The whole idea is to do this early enough in the year so that we can reach consensus on a program that can be applied to all of the IOUs and with slight modifications for each to meet their individual needs and something that all can agree on so that we can get that filed in the 01 docket next year when the testimony for the 2018 -- or 2017, I guess, risk management plan has to be filed, which would be by August. So we need to initiate this, in my parlance, bunny quick, so that we can be moving along.

CHAIRMAN BROWN: Thank you. And if there is not an agreement that comes out of the workshop or workshops, what would happen in the 01 docket for 2017?

MS. BROWNLESS: Then what would happen is that everyone would file their testimony and file their 2017 plans, and they would put forth their individual strategies as to how to deal with hedging, either are they going to do something similar to Mr. Gettings' approach or are they going to -- you know, how are they going to address it? And then we'd be approving that just like we do normally in the 01 docket.

CHAIRMAN BROWN: Okay. Thank you.

And I do want to say I appreciate Mr. Brew's comments that you just made, and I actually agree with everything that you've said and I agree with everything in your prehearing -- in the Prehearing Order and your statements, completely am supportive of the approach, with the understanding that we want utilities to do it smarter. Hedging needs to be done smarter, a more responsible way of hedging as we move forward with all the facts and evidence that we have to date. So I just wanted to make that quick comment and have a clear understanding of what we're going to see over the next six months to a year.

Commissioner Edgar.

COMMISSIONER EDGAR: Thank you. Thank you, Madam Chair. First of all, thanks for the opportunity to comment. I also appreciate PCS Phosphate, their comments, and for working toward approval of a stipulation today. I was somewhat disappointed over the past year about the lack of additional options and analysis of hedging that has come to the Commission.

(Interruption.)

CHAIRMAN BROWN: Commissioner, you're doing great, but the court reporter can't hear you. So could you just slow down a little bit. It's hard -- the feedback is pretty heavy here, so if you could slow down and just speak more clearly so she can capture it.

COMMISSIONER EDGAR: I will certainly try, and my apologies. Do you want me to start over?

CHAIRMAN BROWN: Yes, please. You were doing great. I heard you.

COMMISSIONER EDGAR: Thank you. Thank you, and thank you for recognizing me.

As I was saying, I appreciate PCS Phosphate working toward agreeing with the stipulation. I'm pleased at the outline that has been laid out today for continued work on Issue 1B and related hedging issues. I was a bit disappointed this past year at the lack of additional options and analysis and information that had come to the Commission related to future hedging practices and options. So I'm pleased this is something that the Commission will be taking a deeper dive on, of course, working with all interested parties and our staff. I'm sorry I won't be involved in it, but I look forward to watching the results of the good work.

The concern that I have had over the past years with hedging is that there is not a knee-jerk reaction that throws the baby out with the bath water, realizing that part of hedging is trying to have that nonexistent crystal ball.

So with that, if you are ready, I would move approval of all issues and stipulations 1A through 37 for all parties as it's laid out on page 23 through page 51 in the Prehearing Order. Thank you.

CHAIRMAN BROWN: Thank you, Commissioner Edgar. We got that.

And I express a little bit of additional frustration and the lack of additional information we had this year on proposed options for hedging. I do think hedging is very important to our utilities, to our customers throughout the state of Florida, but there needs to be a systematic way of doing it with the market information that we have that can better address the concerns raised by the intervenors in this docket.

So that being said, Commissioners, we have a motion on the floor. Is there a proper second?

COMMISSIONER BRISÉ: Second.

CHAIRMAN BROWN: Is there further discussion? Okay.

MR. MOYLE: Can --

CHAIRMAN BROWN: No, not proper.

All those in favor, say aye.

(Vote taken.)

Okay. Passes unanimously.

Mr. Moyle.

MR. MOYLE: When Ms. Brownless was responding to your question about what does it look like in terms of the generic proceeding, she said that if there's not agreement, that there would be -- the filings would continue and a 2017 plan would be filed. I think she misspoke and meant to say a 2018 plan.

CHAIRMAN BROWN: '18, she -- yeah, I believe --

MR. MOYLE: I just wanted to make sure that that was -- that I wasn't missing anything.

CHAIRMAN BROWN: Thank you for that.

MR. MOYLE: Because I thought 2017 is gone and away. I don't want to see it coming back.

CHAIRMAN BROWN: Ms. Brownless, he's right.

MS. BROWNLESS: I'm so sorry. I meant it would be filed in 2017.

MR. MOYLE: Okay.

CHAIRMAN BROWN: Thank you. All right.

MR. MOYLE: Okay. Thank you for that clarification.

CHAIRMAN BROWN: Thank you.

We have voted on the 01 docket. Are there any further matters that need to be addressed since briefs are no longer required or due?

MS. JANJIC: I just wanted to note one thing. When she made the motion, she indicated that the stipulated issues listed in the Prehearing Order on page 23 through 51. That does not reflect the current discussion that we had on 1B, so I just wanted to make sure that that was clear for the record, that 1B is included and has been stipulated.

CHAIRMAN BROWN: Yes. Commissioner Edgar, that was your intent; is that correct?

COMMISSIONER EDGAR: Yes.

CHAIRMAN BROWN: Yes?

COMMISSIONER EDGAR: Yes.

CHAIRMAN BROWN: And the second, I'm assuming that was the intent; correct?

COMMISSIONER BRISÉ: Yes, that's correct.

CHAIRMAN BROWN: Okay. Is that clear?

Any other matters that need to be addressed? Any additional comments before we adjourn this docket?

Again, thank you. Thank you to Commissioner Graham for his help on this, and looking forward to seeing you guys throughout the year. This is adjourned.

(Hearing adjourned at 10:26 a.m.)

STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, LINDA BOLES, CRR, RPR, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney, or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 4th day of November, 2016.

Linda Boles

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