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September 30, 2016

-VIA ELECTRONIC FILING -

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

Re: Docket No. 160001-EI

Dear Ms. Stauffer:

I enclose for electronic filing in the above docket Florida Power & Light Company's prepared rebuttal testimony of Gerard J. Yupp.

If there are any questions regarding this transmittal, please contact me at (561) 304-5639.

Sincerely,

s/ John T. Butler
John T. Butler

Enclosures
cc: Counsel for Parties of Record (w/encl.)

CERTIFICATE OF SERVICE
Docket No. 160001-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by electronic delivery on the 30th day of September 2016 to the following:

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BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

DOCKET NO. 160001-EI
FLORIDA POWER & LIGHT COMPANY

SEPTEMBER 30, 2016

IN RE: LEVELIZED FUEL COST RECOVERY
AND CAPACITY COST RECOVERY

REBUTTAL TESTIMONY OF:

GERARD J. YUPP

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.