Matthew R. Bernier Senior Counsel

May 9, 2016

VIA ELECTRONIC FILING

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

Re: Joint Petition for Approval of Modification to Risk Management Plans by Duke Energy Florida, Florida Power & Light Company, Gulf Power Company and Tampa Electric Company; Docket No. 160096

Dear Ms. Stauffer:

Please find enclosed for electronic filing on behalf of Duke Energy Florida, LLC ("DEF"), DEF's redacted Response to Staff's First Data Request (Nos. 1-15).

Thank you for your assistance in this matter. Please feel free to call me at (850) 521-1428 should you have any questions concerning this filing.

Respectfully,

<u>s/Matthew R. Bernier</u> Matthew R. Bernier Senior Counsel <u>Matthew.Bernier@duke-energy.com</u>

MRB/mw Enclosure



Duke Energy Florida, LLC CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail this 9th day of May, 2016 to all parties of record as indicated below.

<u>s/Matthew R. Bernier</u> Attorney

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DOCKET NO. 160096-EI

DUKE ENERGY FLORIDA, LLC'S RESPONSE TO STAFF'S FIRST DATA REQUEST TO DUKE ENERGY FLORIDA

1. Please refer to paragraphs 10 and 11 of the petition and to Exhibits 1 through 4. Explain the reasoning and analysis supporting DEF's proposed reduced hedging targets.

Response:

In summary, the benefits of locking in prices via a structured hedging program over time are to reduce price risk and volatility, and provide greater fuel cost certainty for DEF's customers. The rationale of DEF's proposed reduced hedging targets was to continue to provide the benefits associated with hedging while addressing the feedback expressed by the Commission and various customers groups on alternatives to reduce the potential future costs associated with hedging. In summary, DEF's proposed reduced hedging targets were developed after consideration of four items: 1) DEF's overall fuel mix, 2) the continued uncertainty in future natural gas prices and volatility, 3) the relative levels of current forward prices, and 4) the need to maintain a balanced approach to the management of fuel cost risk considering items 1 through 3. Each of these items are discussed in further detail below.

With respect to item 1, as outlined in the Joint Petition, natural gas represents approximately 66% of DEF's 2016 overall fuel mix based on the forecast utilized for the 2016 fuel projection filing (including forecasted gas usage at both DEF-owned and tolled generation). If only DEF-owned generation were considered, natural gas was estimated at approximately 73% of the total fuel mix. Thus, natural gas makes up the largest fuel commodity component of DEF's overall fuel usage and any changes to natural gas prices will have a greater impact on fuel costs than any other fuel mix component.

With respect to item 2, future prices are uncertain and neither DEF nor any forecaster can precisely predict where actual future prices will ultimately settle. With respect to determining potential price ranges over the next year, DEF reviewed U.S. Energy Information Administration's ("EIA") 95% confidence interval of natural gas prices. Outlined in the table below is a summary from EIA's April 2016 Short-Term Energy and Summer Fuels Outlook. EIA is forecasting Henry Hub spot prices to average \$3.02/MMBtu in 2017 with lower and upper limits under a 95% confidence interval of \$1.53/MMBtu and \$5.04/MMBtu.



As noted above, neither DEF nor any forecaster can precisely predict where actual prices will ultimately settle in the future and DEF's fuel hedging practices are not intended to "out-guess" the market. This information regarding projected natural gas prices is provided because fuel costs are impacted by changing prices over time. In addition to the above statistical price ranges, over the last several years, NYMEX Henry Hub natural gas prices for the 2017 through 2019 time periods have declined and were recently trading at or near historically low levels.

However, over the past several weeks, observed natural gas prices for the periods 2017 through 2019 have trended higher. This is outlined in the table below:



DEF cannot predict where prices could ultimately settle for 2017 through 2019, and its risk management activities are not designed to speculate on future prices; however, current price levels are near the historical lows for these periods. With respect to item 4, given DEF's fuel mix and price trends, DEF believes having a rolling approach that gradually increases hedging percentages by layering in hedging transactions over time that ultimately target to have approximately hedged and exposed to the market for the rolling 1 to 12 month period represents a balanced fuel price risk management approach that results in certainty of fuel costs for a portion of projected fuel costs while of exposure to actual market prices. providing customers an In addition, DEF believes continuing to hedge a portion for the rolling future periods beyond the front 12 months by gradually increasing hedging percentages over time by executing transactions provides benefits by ensuring a consistent execution approach over a multi-year period to manage fuel cost risk given the number of factors that can ultimately impact prices and trends and ensures a degree of cost volatility risk mitigation from one fuel period to another.

2. Explain the risks and benefits to customers, if any, of DEF's proposed reduced hedging targets.

Response:

As outlined in question 1, locking in fixed prices under DEF's hedging program for a portion of the projected natural gas usage over time provides benefits to the customers by reducing fuel price volatility and providing a greater degree of fuel cost certainty. The reduced hedging targets will continue to provide this benefit to customers, albeit to a lesser degree.

With respect to the risks of the proposed changes, in short, customers will have greater fuel cost exposure to market changes as a result of the lower targets. The impact on actual costs of the proposed reduced hedging targets will depend on where natural gas prices ultimately settle for the respective future periods as compared to where DEF could have hedged prices over time under its current approved targets for these future periods.

3. Please refer to paragraph 12 of the petition and to Exhibits 1 through 4. Explain the reasoning and analysis supporting the proposed limit on the future time horizon over which hedges may be placed.

Response:

DEF's current hedging program covers a rolling 36-month time horizon with hedging percentage targets for the 1 to 12 month rolling period, the 13 to 24 month rolling period, and the 25 to 36 month rolling period. DEF did not recommend changing the time horizon of the program but did make percentage target reductions for the respective time periods. To effectively manage fuel cost volatility risk, DEF believes a hedging program executed over a multi-year time period is reasonable to ensure a consistent non-speculative approach that provides for the layering in of hedging transactions at prevailing market prices and conditions to gradually increase the hedged percentages over time.

4. Explain the risks and benefits to customers, if any, of the proposed limit on the future horizon over which hedges may be placed.

Response:

Please see responses to question 2 and 3 that address the risks and benefits associated with lowering the hedge percentages within the proposed time horizons. With respect to the benefits and risks of the proposed time horizon, the customers will benefit as hedging transactions will continue to be executed in a structured approach over time to reduce price risk and volatility, and provide a greater degree of fuel cost certainty. The customers will have greater fuel cost risk in the form of greater exposure to fuel market changes as a result of the lower hedge percentage targets as outlined in the response to question 2. However, the impact on actual costs of the proposed reduced hedging targets for each period of the rolling 36 months will depend on where actual natural gas prices ultimately settle for the respective future periods as compared to where DEF could have hedged these prices over time under its current targets. DEF believes a hedging program executed over a multi-year time period is reasonable as it provides a consistent nonspeculative approach by layering in hedging transactions over time at prevailing market prices and conditions to gradually increase the percent hedged to manage fuel cost risk over time. DEF believes maintaining the proposed tenor time frames represents a balanced approach that ultimately results in an approximately exposure between hedged and unhedged market prices for the customer once the prompt year (1 to 12 month period) is reached.

5. Has DEF analyzed the potential effects on 2016 and 2017 customers' bills of the proposed modifications to the risk management plans? If yes, please explain.

Response:

DEF has not performed any analysis regarding the potential effects on 2016 and 2017 customers' bills.

6. Will the proposed modifications reduce the benefits and costs of hedging? Please explain any analysis that estimates the effects of the proposed changes.

Response:

Please see responses to questions 2 and 4.

7. Will the proposed modifications reduce the administrative costs of the hedging program for the remainder of 2016 and for 2017 assuming approval? Please explain.

Response:

No, the proposed reductions will not impact the administrative costs of operating the hedging program. DEF will continue using the same systems and applications to execute, capture and process hedging transactions. Also, the company will continue to provide the required independent oversight and reporting for the hedging program and continue to perform the required settlements and accounting of the hedging transactions.

8. Please refer to the last two sentences of paragraph 5 of the petition. How would the factors listed in the last sentence cause the downward trend in natural gas prices to change or reverse?

Response:

In summary, DEF cannot predict with certainty future prices or trends and its hedging program is not designed to out-guess the market, but the factors outlined in the petition are examples of dynamic forces that could impact the balance of supply and demand of natural gas over time and could cause changes to the trends and the ultimate settlement prices for natural gas prices in the future.

On the supply side, the current lower natural gas and oil price environment, while benefiting consumers in the form of lower prices, has impacted the financial health of many U.S. gas producers. Over the past year there has been a deterioration in the financial health of the E&P industry in general with bankruptcies, layoffs, asset write downs and credit downgrades. Lower market prices have also impacted the ability to access capital needed for drilling and production. For example, with respect to production costs and market trends, on April 19, 2016, domestic dry gas production reached new lows for the year. Although isolating one specific cause is not possible, low commodity prices and capital constraints are putting financial strain on the producing community which has resulted in significant reductions in rig count and drilling activity. As outlined in the response to question 1, forward price trends recently showed some trend reversal over the past several weeks. Although it cannot be predicted how production and price trends will continue, future production level is certainly one of the factors that can impact natural gas prices and reverse the price trend.

In addition, the changing balance of supply and demand and corresponding impact on the downward trend in price can be impacted by a number of dynamic factors such as, but not limited to, storage levels, increased demand from LNG exports, the continued retirement of coal and addition of gas generation, and potential risk of increased costs as a result of changing or more stringent regulations for producing and moving gas to market. With respect to natural gas storage, inventory levels at the end of the winter of 2015-2016 were at all-time highs as a result of the relatively mild winter weather (which resulted in reduced residential demand) while production remained relatively flat. Thus, the current storage balance has created a downward impact on prices in the short-term but this can change over time as record high inventories are not an annual occurrence. Also, increased demand of LNG exports is expected as new U.S. export facilities begin operations; there is currently approximately 11 BCF/day of LNG export permitted and under construction at six facilities in Louisiana, Texas, and Maryland coming on-line between 2016 and 2020. Further, coal generation continues to be retired as a result of environmental regulations and is being replaced with more natural gas generation which could increase demand from power generators. Also, U.S. pipeline exports to Mexico are expected to continue to increase which could impact the trend in prices. Lastly, potential additional environmental regulations further regulating hydraulic fracking or other regulations on gas production could potentially increase the total costs to bring natural gas to market which could impact price.

9. Please refer to last sentence of paragraph 8. As of the time of this interrogatory, what percentage of DEF's hedges for 2017 procurement has been executed?

Response:

As of close of business on April 27, 2016, DEF had hedged approximately percent of its forecasted natural gas burns for calendar year 2017.

10. For DEF, please refer to paragraph 9. Is DEF stating that the range in DEF's 2016 Risk Management Plan encompasses the range with the proposed changes in paragraph 10? Please explain.

Response:

Yes. The proposed range for calendar 2017 (or what would be the prompt 1 to 12 month time period going into 2017 at the end of 2016) would be **see** to **see** with a **see** target percentage. DEF's 2016 Risk Management Plan included a prompt 1 to 12 month time period hedge range of **see** to **see**. DEF is currently under the proposed target of **see** for calendar year 2017 as outlined in question 9. Thus, DEF can manage the proposed percentage hedge target reduction for the rolling 1 to 12 month time period (calendar year 2017) within the proposed hedge range and target percentage of **see**.

11. If the hedging contracts in place for 2015 for DEF had been reduced by 25%, how much would DEF have saved compared to actual results? Please state any assumptions that might underlie this calculation.

Response:

If the 2015 natural gas hedging contracts in place had been reduced by 25% the DEF net hedge cost for 2015 of approximately \$225.5 million would have changed to a net hedge cost of approximately \$169.1 million, a net difference of approximately \$56.4 million. This hypothetical difference was determined by taking the total natural gas hedge costs for 2015 (excluding storage) of \$225.5 million divided by the volume of natural gas hedges executed (excluding storage) to determine an average hedge cost per MMBtu. This hedging cost per MMBtu was multiplied by 25% of the total volume of natural gas hedged (excluding storage) to determine the hypothetical cost that would have been avoided, the \$56.4 million, by hedging a volume that was 25% less than what was actually hedged. Or conversely, the total natural gas hedge cost (excluding storage) of \$225.5 million multiplied by 75% would result in a hypothetical net hedge cost of \$169.1 million.

By providing the response above, DEF would note that utilizing 2015 hedge costs as a potential proxy for analyzing the potential savings in the future due to the proposed lower hedging targets may not yield consistent or proportional results for future periods. This is because given the declining market trends over the past few years and the current forward

markets, DEF is currently hedging in a lower overall price environment for 2017 and 2018 than what existed when DEF was executing hedges for past periods. For example, as of April 27, 2016, DEF's current hedge percentages for 2017 and 2018 are **and and respectively**, with the current unrealized market value of the hedges for 2017 of an estimated **and estimated and estimated and for 2018**. The market prices and estimated costs or savings will vary over time; however, given the lower current market price that incremental hedges are being executed may yield varying results when compared to previous periods when hedges were being executed at higher market prices.

12. What natural gas hedging savings (costs) and hedging volumes have been incurred by DEF for the period January-March, 2016?

Response:

DEF's cumulative natural gas hedging cost is approximately \$50.4 million from January 2016 through March 2016 with a corresponding volume of approximately 30.3 Bcf.

13. If the proposed reductions detailed in the Joint Petition would have been in place during the January-March 2016 period, what natural gas hedging savings (costs) would DEF have incurred?

Response:

The hedge percentage for January through March 2016 is approximately and if the proposed target of would have been implemented under this assumption for this period the hedging contracts would be reduced by approximately . The DEF net hedge cost for January-March 2016 of approximately \$50.4 million would have changed to a net hedge cost of approximately million, a net difference of approximately million under this assumption. This hypothetical hedging cost difference was determined by taking the total natural gas hedge costs for January through March 2016 divided by the volume of natural gas hedges executed to determine an approximate average hedge costs per MMBtu. This approximate hedging cost per MMBtu was then multiplied by the net hedge volume reduction to determine the hypothetical cost that would have been avoided, the approximate million.

As noted in question 11, DEF would note that by utilizing 2016 hedge costs as a potential proxy for analyzing the potential savings in the future due to the proposed lower hedging targets may not yield consistent or proportional results for future periods.

14. What natural gas hedging savings (costs) and hedging volumes is DEF estimating for the period April-December 2016?

Response:

For natural gas DEF is estimating a net hedge cost for April 2016 through December 2016 of approximately \$122.5 million based on April 27, 2016 closing market prices with a corresponding volume of approximately 105.3 Bcf.

15. If the proposed reductions detailed in the Joint Petition would have been in place during the April-December 2016 period, what are the estimated natural gas hedging savings (costs)?

Response:

The hedge percentage for April through December 2016 is approximately and if the proposed target of would have been implemented for this period the hedging contracts would be reduced by approximately . The DEF net hedge cost for April-December 2016 of approximately \$122.5 million based on April 27, 2016 closing market prices would have changed to a net hedge cost of approximately million based on April 27, 2016 closing market prices, a net difference of approximately million under this assumption. This hypothetical hedge cost difference was determined by taking the total natural gas hedge costs for April through December 2016 of approximately \$122.5 million divided by the volume of natural gas hedged to determine an approximate average hedge cost per MMBtu. This approximate hedging cost per MMBtu was then multiplied by the net hedge volume reduction to determine the hypothetical cost that would have been avoided, the approximate million.

As noted in question 11, DEF would note that by utilizing 2016 hedge costs as a potential proxy for analyzing the potential savings in the future due to the proposed lower hedging targets may not yield consistent or proportional results for future periods.