



Matthew R. Bernier
Senior Counsel
Duke Energy Florida, LLC.

October 8, 2015

VIA ELECTRONIC FILING

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

Re: *Fuel and purchased power cost recovery clause with generating performance incentive factor; Docket No. 150001-EI*

Dear Ms. Stauffer:

Please find enclosed for electronic filing on behalf of ("DEF") DEF's Request for Confidential Classification for certain information provided in response to Staff's Seventh Set of Interrogatories (No. 37). This filing includes:

- DEF's Request for Confidential Classification
- Slipsheet for confidential Exhibit A;
- Redacted Exhibit B (two copies);
- Exhibit C (justification matrix); and
- Exhibit D (affidavit of Joseph McCallister)

DEF's confidential Exhibit A that accompanies the above-referenced filing has been submitted under separate cover.

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,

s/Matthew R. Bernier

Matthew R. Bernier
Senior Counsel
Matthew.Bernier@duke-energy.com

MRB/mw
Enclosures

Duke Energy Florida, LLC
Docket No.: 150001
CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail this 8th day of October, 2015 to all parties of record as indicated below.

s/Matthew R. Bernier
Attorney

<p>Suzanne Brownless, Esq. Danijela Janjic, Esq. John Villafrate, Esq. Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 sbrownle@psc.state.fl.us djanjic@psc.state.fl.us jvillafr@psc.state.fl.us</p> <p>James D. Beasley, Esq. J. Jeffrey Wahlen, Esq. Ashley M. Daniels, Esq. Ausley McMullen Law Firm P.O. Box 391 Tallahassee, FL 32302 jbeasley@ausley.com jwahlen@ausley.com adaniels@ausley.com</p> <p>Jeffrey A. Stone, Esq. Russell A. Badders, Esq. Steven R. Griffin, Esq. Beggs & Lane P.O. Box 12950 Pensacola, FL 32591 jas@beggslane.com rab@beggslane.com srg@beggslane.com</p> <p>Jon C. Moyle, Jr., Esq. Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com</p> <p>Kenneth Hoffman Florida Power & Light Company 215 S. Monroe Street, Suite 810 Tallahassee, FL 32301-1858 ken.hoffman@fpl.com</p>	<p>Mike Cassel Aleida Socarras Florida Public Utilities Company/Florida Division of Chesapeake Utilities Corporation 1750 SW 14th Street, Suite 200 Fernandina Beach, FL 32034 mcassel@fpuc.com asocarras@chpk.com</p> <p>Robert Scheffel Wright, Esq. John T. LaVia, III, Esq. c/o Gardner Law Firm 1300 Thomaswood Drive Tallahassee, FL 32308 schef@gbwlegal.com jlavia@gbwlegal.com</p> <p>Robert L. McGee, Jr. Gulf Power Company One Energy Place Pensacola, FL 32520-0780 rlmgee@southernco.com</p> <p>Beth Keating, Esq. Gunster, Yoakley & Stewart, P.A. 215 South Monroe Street, Suite 601 Tallahassee, FL 32301 bkeating@gunster.com</p> <p>Charles J. Rehwinkel Erik Saylor / John Truitt Patty Christensen / J.R. Kelly Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 rehwinkel.charles@leg.state.fl.us saylor.erik@leg.state.fl.us kelly.jr@leg.state.fl.us Christensen.patty@leg.state.fl.us Truitt.john@leg.state.fl.us</p>	<p>Ms. Paula K. Brown Manager, Regulatory Coordination Tampa Electric Company P.O. Box 111 Tampa, FL 33601 regdept@tecoenergy.com</p> <p>Raoul G. Cantero, III, Esq. White & Case, LLP Southeast Financial Center, Suite 4900 200 South Biscayne Boulevard Miami, FL 33131-2352 rcantero@whitecase.com</p> <p>James W. Brew, Esq. Owen J. Kopon, Esq. Laura A. Wynn, Esq. Stone Matheis Xenopoulos & Brew, PC 1025 Thomas Jefferson Street NW 8th Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com ojk@smxblaw.com laura.wynn@smxblaw.com</p> <p>John T. Butler, Esq. Maria Moncada, Esq. Florida Power & Light Company 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 john.butler@fpl.com maria.moncada@fpl.com</p>
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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Fuel and purchased power cost
recovery clause with generating
performance incentive factor.

Docket No. 150001-EI

Dated: October 8, 2015

**DUKE ENERGY FLORIDA'S
REQUEST FOR CONFIDENTIAL CLASSIFICATION**

Duke Energy Florida, LLC (“DEF” or “Company”), pursuant to Section 366.093, Florida Statutes (F.S.), and Rule 25-22.006, Florida Administrative Code, submits this Request for Confidential Classification for certain information provided in response to Staff’s Seventh Set of Interrogatories (No. 37), specifically subsections a, b, c, d, e, f, g, h and l. In support of this Request, DEF states:

1. DEF’s responses to Staff’s Seventh Set of Interrogatories, contain information that is “proprietary confidential business information” under Section 366.093(3), Florida Statutes.
2. The following exhibits are included with this request:
 - (a) Sealed Composite Exhibit A is a package containing an unredacted copy of all the documents for which DEF seeks confidential treatment. Composite Exhibit A is being submitted separately in a sealed envelope labeled “CONFIDENTIAL.” In the unredacted version, the information asserted to be confidential is highlighted in yellow.
 - (b) Composite Exhibit B is a package containing two copies of redacted versions of the documents for which the Company requests confidential classification. The

specific information for which confidential treatment is requested has been blocked out by opaque marker or other means.

(c) Exhibit C is a table which identifies by page and line the information for which DEF seeks confidential classification and the specific statutory basis for seeking confidential treatment.

(d) Exhibit D is an affidavit attesting to the confidential nature of information identified in this request.

3. As indicated in Exhibit C, the information contained in DEF's responses to Staff's Seventh Set of Interrogatories No. 37, specifically subsections a, b, c, d, e, f, g, h and l, for which DEF requests confidential classification is "proprietary confidential business information" within the meaning of Section 366.093(3), F.S. Specifically, the information at issue relates to non-public information that has not been disclosed to the public by its vendors. The information at issue relates to the competitive interests of DEF and its vendors, the disclosure of which would impair their competitive businesses. § 366.093(3)(e), F.S.; Affidavit of Joseph McCallister at ¶ 5. Additionally, if the information at issue was disclosed, DEF's efforts to obtain necessary market information, projections, and analysis from third parties would be undermined to the detriment of DEF and its customers. *See* Affidavit of Joseph McCallister at ¶ 5. Accordingly, such information constitutes "proprietary confidential business information" which is exempt from disclosure under the Public Records Act pursuant to Section 366.093(1), F.S.

4. The information identified as Exhibit "A" is intended to be and is treated as confidential by the Company. Affidavit of Joseph McCallister at ¶ 6. The information has not been disclosed to the public, and the Company has treated and continues to treat the information at issue as confidential. *See id.*

5. DEF requests that the information identified in Exhibit A be classified as “proprietary confidential business information” within the meaning of section 366.093(3), F.S., that the information remain confidential for a period of at least 18 months as provided in section 366.093(4) F. S., and that the information be returned as soon as it is no longer necessary for the Commission to conduct its business.

WHEREFORE, for the foregoing reasons, DEF respectfully requests that this Request for Confidential Classification be granted.

Respectfully Submitted this 8th day of October, 2015.

s/Matthew R. Bernier _____

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Attorneys for Duke Energy Florida, LLC

Duke Energy Florida
CERTIFICATE OF SERVICE
Docket No. 150001-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via email this 8th day of October, 2015 to all parties of record as indicated below.

s/Matthew R. Bernier

Attorney

<p>Suzanne Brownless, Esq. Danijela Janjic, Esq. John Villafrate, Esq. Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 sbrownle@psc.state.fl.us djanjic@psc.state.fl.us jvillafr@psc.state.fl.us</p> <p>James D. Beasley, Esq. J. Jeffrey Wahlen, Esq. Ashley M. Daniels, Esq. Ausley McMullen Law Firm P.O. Box 391 Tallahassee, FL 32302 jbeasley@ausley.com jwahlen@ausley.com adaniels@ausley.com</p> <p>Jeffrey A. Stone, Esq. Russell A. Badders, Esq. Steven R. Griffin, Esq. Beggs & Lane P.O. Box 12950 Pensacola, FL 32591 jas@beggslane.com rab@beggslane.com srg@beggslane.com</p> <p>Jon C. Moyle, Jr., Esq. Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com</p> <p>Kenneth Hoffman Florida Power & Light Company 215 S. Monroe Street, Suite 810 Tallahassee, FL 32301-1858 ken.hoffman@fpl.com</p>	<p>Mike Cassel Aleida Socarras Florida Public Utilities Company/Florida Division of Chesapeake Utilities Corporation 1750 SW 14th Street, Suite 200 Fernandina Beach, FL 32034 mcassel@fpuc.com asocarras@chpk.com</p> <p>Robert Scheffel Wright, Esq. John T. LaVia, III, Esq. c/o Gardner Law Firm 1300 Thomaswood Drive Tallahassee, FL 32308 schef@gbwlegal.com jlavia@gbwlegal.com</p> <p>Robert L. McGee, Jr. Gulf Power Company One Energy Place Pensacola, FL 32520-0780 rlmcgee@southernco.com</p> <p>Charles J. Rehwinkel Erik Sayler / John Truitt Patty Christensen / J.R. Kelly Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 rehwinkel.charles@leg.state.fl.us sayler.erik@leg.state.fl.us kelly.jr@leg.state.fl.us Christensen.patty@leg.state.fl.us Truitt.john@leg.state.fl.us</p>	<p>Ms. Paula K. Brown Manager, Regulatory Coordination Tampa Electric Company P.O. Box 111 Tampa, FL 33601 regdept@tecoenergy.com</p> <p>Raoul G. Cantero, III, Esq. White & Case, LLP Southeast Financial Center, Suite 4900 200 South Biscayne Boulevard Miami, FL 33131-2352 rcantero@whitecase.com</p> <p>James W. Brew, Esq. Owen J. Kopon, Esq. Laura A. Wynn, Esq. Stone Matheis Xenopoulos & Brew, PC 1025 Thomas Jefferson Street NW 8th Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com ojk@smxblaw.com laura.wynn@smxblaw.com</p> <p>John T. Butler, Esq. Maria Moncada, Esq. Florida Power & Light Company 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 john.butler@fpl.com maria.moncada@fpl.com</p> <p>Beth Keating, Esq. Gunster, Yoakley & Stewart, P.A. 215 South Monroe Street, Suite 601 Tallahassee, FL 32301 bkeating@gunster.com</p>
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Exhibit A

“CONFIDENTIAL”

(filed under separate cover)

Exhibit B

REDACTED

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Fuel and purchased power cost recovery clause with generating performance incentive factor. || DOCKET NO. 150001-EI
|| DATED: October 8, 2015

**DUKE ENERGY FLORIDA, LLC’S RESPONSE TO
STAFF’S SEVENTH SET OF INTERROGATORIES (NO. 37)**

Duke Energy Florida, LLC (“DEF” or the “Company”), responds to Staff’s Seventh Set of Interrogatories to DEF (No. 37), as follows:

INTERROGATORIES

37. Please refer to the testimony of Duke witness McCallister dated September 1, 2015, pages 1 through 5. Please discuss how the following topics might affect natural gas prices in the future, both for 2016 and beyond. Include comments on the effect, if any, on the supply of and demand for natural gas.
- a. Lower crude oil prices.
 - b. Natural gas as a byproduct of crude oil production.
 - c. Rig count.
 - d. Exports of LNG from the U.S.
 - e. Nationwide reliance on natural gas for generating electricity.
 - f. Demand for natural gas for manufacturing, chemicals, and processing.
 - g. Regulatory and environmental issues surrounding shale gas production and hydraulic fracturing including water use, fracturing chemicals, wastewater disposal, seismic activity, methane emissions.
 - h. Future production of shale formations.
 - i. Pipeline and gas transmission network issues.
 - j. Decline rate for production of gas from shale gas rigs.
 - k. Productivity gains for shale gas production.
 - l. Financial strains on producers.

Response:

Future natural gas prices will be influenced by a number of dynamic supply and demand factors over time. To provide information on the topics requested, many potential sources of information for each topic could exist with varying information, different opinions and perspectives in the context of potential impacts on supply, demand and price. DEF has provided information from some of those sources below but notes that DEF has not attempted to provide an all-inclusive summary of each source and all such sources. In addition, articles, reports and forecasts can be caveated with disclaimers and statements to the effect that the information, forecasts and summaries may or may not occur and are impacted by assumptions. DEF is providing background on each topic obtained from reviews of industry sources, articles and summaries and the Company does not attest to the accuracy of their data, opinions, forecasts or any conclusions.

- a. Lower crude oil prices
- b. Natural gas as a byproduct of crude oil production.

Response:

The WTI Spot Price has declined from approximately \$95/Barrel near the end of September 2014 to approximately \$44/Barrel on September 28, 2015, which represents a decline of approximately 53% from a year ago. With lower oil prices, oil rig count has dropped significantly since late 2014 as outlined in 37c below. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

c. Rig count.

Response:

Per the Baker Hughes Rig Count Summary generated September 28, 2015, in the last year, US natural gas rig count have fallen from 336 to 199, and US oil rig counts have dropped from 1,592 to 653. If the current trend of lower rig counts continues, the oil rig count reduction could affect future gas supply due to lower associated gas production as noted in DEF's response in 37a and b. With respect to gas production, according to [REDACTED]

[REDACTED]

[REDACTED] There can be a lag time between the drop in rig counts and a corresponding drop in production as the period can be several months from the initial use of the rig to drill, and the ultimate completion of the well, and in service of a producing well.

d. Exports of LNG from the U.S.

Response:

Exports of LNG will result in additional demand and will require additional US supply. According to the FERC Summary dated September 15, 2015, approximately twenty-two (22) US export terminals have been proposed and are in varying stages of pre-filings and pending applications. Per the FERC Summary, six (6) of these export terminals have been approved and five (5) are currently under construction of which four (4) are in the Gulf Coast Region. In summary, the 5 approved and under construction terminals are Chenier/Sabine Pass in Louisiana, Sempra/Cameron in Louisiana, Freeport in Texas, Dominion Cove Point in Maryland, and Cheniere Corpus Christi in Texas. First exports of LNG are targeted by the end of 2015 from the Cheniere Sabine Pass Liquefaction Project per the Cheniere Energy Website. Per the FERC Summary noted above, the total daily export capacity in BCF/day of the 5 projects currently under construction is approximately 9.2 BCF/day. Per the [REDACTED]

[REDACTED]

[Redacted]

e. Nationwide reliance on natural gas for generating electricity

Response:

[Redacted]

Additional information on growing coal retirements and new gas generation trends was reported recently by [Redacted]

[Redacted]

[REDACTED]

In another [REDACTED]

[REDACTED]

[REDACTED]

Please see further discussion on overall demand factors in 37 d, f and g.

In summary, from the above the key drivers that could result in greater reliance on natural gas for generating electricity.

f. Demand for natural gas for manufacturing, chemicals, and processing.

Response:

[REDACTED]

[REDACTED] In addition, in the nearer term per the July 2015 EIA Short-Term Energy outlook, industrial sector consumption increases 3.3% in 2015 and by 3.9% by the end of the 2016 as new industrial projects come on line, particularly in the fertilizer and chemical sectors, and as industrial consumers continue to take advantage of low natural gas prices. [REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- g. Regulatory and environmental issues surrounding shale gas production and hydraulic fracturing including water use, fracturing chemicals, wastewater disposal, seismic activity, methane emissions.

Response:

In reviewing information on this topic, there continue to be some concerns expressed with the extraction of natural gas and shale production development due to risks to land, air, water and natural resources and potential public health impacts. As shale production has grown, potential issues and concerns have been expressed over environmental aspects of shale gas production, and some jurisdictions have called for restrictions. With respect to requirements that must be adhered to by the companies that drill shale production and utilize hydraulic fracturing, it is the company's understanding that the companies who produce natural gas are subject to various federal, state and local laws and regulations, and environmental, health and safety regulations. As a reference only, the company has provided a link to a shale producer public disclosures related to regulation, and environmental, health and safety regulation from their 2014 10K. The link is [EQT Midstream-12.31.2014-10K](#) as it relates to shale production and hydraulic fracturing. From a summary review, the information on this topic is located in the Regulations and Environmental, Health and Safety Regulation sections of the 10-K and is outlined on pages 15 and 16 of the referenced 10-K.

In addition to the regulations, and federal, state and local laws that were outlined in the above referenced 10-K, some local and state jurisdictions have put further restrictions on shale production and hydraulic fracturing. For example, as reported by Syracuse.com in June 2015, the state of New York which is part of the Marcellus region banned hydraulic fracking in 2015. Per in article from Pro Publica in November 2010, in 2010, the City of Pittsburgh City Council unanimously voted to ban within the City Limits citing health and environmental concerns. In 2015, per the daily Caller, the Maryland law became effective

that imposes a moratorium on fracking in Maryland and prevents Maryland regulators from issuing fracking permits until October 2017. The bill requires the state to adopt regulations by October 2016.

With respect to seismic activity, [REDACTED]

[REDACTED]

Lastly, water contamination, handling and disposal is another area of focus and potential concern in drilling and hydraulic fracturing. The USGS (United States Geological

Survey) FAQ noted water usage can vary and estimates that the average reported water usage per well in the Marcellus shale play is 4.5 million gallons.

With the above examples and background, it is difficult to predict impacts to shale supply availability related to current or future regulatory and environmental requirements related to shale production and hydraulic fracturing activities.

h. Future production of shale formations.

Response:

[Redacted content]

[REDACTED]

- i. Pipeline and gas transmission network issues.

Response:

With the on-going growth in gas generation and growing importance to the electric grid, having access to supply with the needed pipeline delivery infrastructure is critical. In addition, as gas generation grows, timing of needed approvals and the in service of required new or expanded infrastructure pipeline projects is a critical component to ensure gas is available to meet new gas generation projects. As gas generation grows, end users will need to evaluate gas infrastructure and service requirements to access needed supply and manage needed firm pipeline transportation to mitigate potential gas transmission constraints. Pipeline transportation and market services required by the respective electric generation companies could vary by company based on the make-up and location of their generation, location of gas production and pipeline access, and reliance on pipeline infrastructure.

- j. Decline rate for production of gas from shale gas rigs.

Response:

Oil and gas well production rates decline as a function of time due to loss of reservoir pressure. Per an article in the Beacon Journal in January 2015, Dr. Jeffrey C. Dick, a professor and chair of the department of geology and environmental sciences at Youngstown State University examined Tippens 6HS well located in Monroe County in southeastern Ohio. In summary, per the article determining decline rates is not easy, he said, because drilling companies have different approaches to production. Some want to

draw down wells quickly, while others might restrict production to extend the lives of the wells. An analysis of Utica wells tapped in each of the first four quarters from July 2013 through June 2014 shows natural gas production had dropped 65 percent. He estimated that Utica Shale production will drop 33 percent in the second year of a well's life and another 22 percent in the third year. Decline is projected at another 17 percent in the fourth year, followed by 13 percent and 11 percent in the next two years, he said in a review that has circulated widely. Such numbers are evidence of what drillers call "production decline curves" — drop-offs over time. It is a common (and expected) occurrence for shale wells, even in wells expected to produce for 30 years or more. The bottom line: Shale wells produce the most in the first few years or, as evidenced in the sharply declining production rates in Ohio, their first few months.

k. Productivity gains for shale gas production.

Response:

In general, although results may vary by producer and region, as shale production has increased, producers have continued to look for ways to enhance and improve technological production methods to increase output, efficiency and reduce production costs in order to improve well economics. In the article, "More efficient fracking means more oil and natural gas" per McClatchy DC, October 2014 it was reported that drillers have honed their fracking techniques since the start of the energy boom and are now getting far more oil and gas from each rig. Five major shale areas in the U.S. have seen increased production per rig in the last few years with the Eagle Ford leading the efficiency increase for oil production and the Marcellus shale of Pennsylvania tops for natural gas. From the article, one new technique is a big increase in the amount of sand used to prop open the tiny cracks created when the chemical-spiked water fractures the shale rock. The technique appears to boost the initial production rates although it tends to be followed by a quicker decline in the well than otherwise. Another method being adopted by drillers is to use geologic data to pinpoint the best spots along the horizontal well to frack rather than spacing them evenly across the five or ten thousand feet of well.

Per the article, the growth in the drill boom has environmental downsides with complaints about industrial sand mining and the huge amounts of water used in fracking. The McClatchy article states its inconclusive if the engineering is going to mean more total output pumped from each well or just run dryer faster. In summary, producers continue to enhance production methods to increase efficiency and potential output.

1. Financial strains on producers.

Response:

Given current market conditions, there are indications that oil and gas related companies are under greater financial strain which has resulted in capital spending reductions and put some companies in severe financial strain. For example, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] In addition, the Marcellus Shale Coalition industry advocacy group based in Pittsburgh reported on July 20, 2015, in summary that twenty-two (22) energy companies with operations in Pennsylvania have reduced capital expenditures anywhere from 12% to 74%. The Oil & Gas Journal (April 2015) reported that oil and gas companies have slashed budgets in an effort to pull spending back with sharply diminished cash flow. Per the article, for US E&P only, Oil and Gas Journal (OGJ) projects spending in 2015 to be \$203.24 billion down 32% from last year. OGJ based its spending forecast on company data and a rig count projection that assumed the crude price would remain below \$60/bbl. Per the [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

As summarized in 37a, b and c above, the impact of lower oil prices and current market conditions have resulted in significant declines in rig count, and reductions in capital spending from drilling budgets. As outlined in 37j, declining rates of production may require on-going capital to maintain and grow production in spite of efficiency gains. If these factors persist, as noted in other sections, it may lead to flattening to declining gas production in the nearer term until market conditions improve.

As noted above, numerous variables can impact gas supply and demand and ultimately prices. Neither the company nor market price forecasters of prices can predict with certainty where prices will ultimately settle for 2016 and beyond. For reference, the company is providing the current forecast from EIA's 2015 Annual Energy Outlook reference case outlook, Energy Ventures Analysis Fall 2015 Long-Term outlook, and recent market prices for the periods of 2016 through 2020. Per the 2015 EIA annual energy outlook, the reference nominal Henry Hub price for 2016 through 2020 are forecasted to be \$3.90, \$4.09, \$4.61, \$5.07 and \$5.54 per MMBtu, respectively which equates to a simple average price for the five year period of \$4.64 per MMBtu. EIA Henry Hub referenced prices are located at,

http://www.eia.gov/forecasts/aeo/tables_ref.cfm. and reference Table 13 Natural Gas Supply Disposition and Prices. Per [REDACTED], the nominal Henry Hub spot prices for each year from 2016 through 2020 are forecasted to be [REDACTED], per MMBtu, respectively which equates to a simple average price for the five year period of [REDACTED] per MMBtu. In

reviewing current market price indications for the periods of 2016 through 2020, the current market prices as of October 2, 2015, for the NYMEX Henry Hub contract for each year 2016 through 2020 are \$2.772, \$2.961, \$3.031, \$3.094 and \$3.205 per MMBtu, respectively which equates to a simple average price for the five year period of approximately \$3.013 per MMBtu, a record settlement low for this time period.

The market prices referenced above can be found at http://www.cmegroup.com/trading/energy/natural-gas/natural-gas_quotes_settlements_futures.html#tradeDate=10/02/2015.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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- a. Lower crude oil prices
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Response:

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

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Response:

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d. Exports of LNG from the U.S.

Response:

Exports of LNG will result in additional demand and will require additional US supply. According to the FERC Summary dated September 15, 2015, approximately twenty-two (22) US export terminals have been proposed and are in varying stages of pre-filings and pending applications. Per the FERC Summary, six (6) of these export terminals have been approved and five (5) are currently under construction of which four (4) are in the Gulf Coast Region. In summary, the 5 approved and under construction terminals are Chenier/Sabine Pass in Louisiana, Sempra/Cameron in Louisiana, Freeport in Texas, Dominion Cove Point in Maryland, and Cheniere Corpus Christi in Texas. First exports of LNG are targeted by the end of 2015 from the Cheniere Sabine Pass Liquefaction Project per the Cheniere Energy Website. Per the FERC Summary noted above, the total daily export capacity in BCF/day of the 5 projects currently under construction is approximately 9.2 BCF/day. Per the [REDACTED]

[REDACTED]

[Redacted]

e. Nationwide reliance on natural gas for generating electricity

Response:

[Redacted]

Additional information on growing coal retirements and new gas generation trends was reported recently by [Redacted]

[Redacted]

[REDACTED]

In another [REDACTED]

[REDACTED]

[REDACTED]

Please see further discussion on overall demand factors in 37 d, f and g.

In summary, from the above the key drivers that could result in greater reliance on natural gas for generating electricity.

f. Demand for natural gas for manufacturing, chemicals, and processing.

Response:

[REDACTED]

[REDACTED] In addition, in the nearer term per the July 2015 EIA Short-Term Energy outlook, industrial sector consumption increases 3.3% in 2015 and by 3.9% by the end of the 2016 as new industrial projects come on line, particularly in the fertilizer and chemical sectors, and as industrial consumers continue to take advantage of low natural gas prices. [REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- g. Regulatory and environmental issues surrounding shale gas production and hydraulic fracturing including water use, fracturing chemicals, wastewater disposal, seismic activity, methane emissions.

Response:

In reviewing information on this topic, there continue to be some concerns expressed with the extraction of natural gas and shale production development due to risks to land, air, water and natural resources and potential public health impacts. As shale production has grown, potential issues and concerns have been expressed over environmental aspects of shale gas production, and some jurisdictions have called for restrictions. With respect to requirements that must be adhered to by the companies that drill shale production and utilize hydraulic fracturing, it is the company's understanding that the companies who produce natural gas are subject to various federal, state and local laws and regulations, and environmental, health and safety regulations. As a reference only, the company has provided a link to a shale producer public disclosures related to regulation, and environmental, health and safety regulation from their 2014 10K. The link is [EQT Midstream-12.31.2014-10K](#) as it relates to shale production and hydraulic fracturing. From a summary review, the information on this topic is located in the Regulations and Environmental, Health and Safety Regulation sections of the 10-K and is outlined on pages 15 and 16 of the referenced 10-K.

In addition to the regulations, and federal, state and local laws that were outlined in the above referenced 10-K, some local and state jurisdictions have put further restrictions on shale production and hydraulic fracturing. For example, as reported by Syracuse.com in June 2015, the state of New York which is part of the Marcellus region banned hydraulic fracking in 2015. Per in article from Pro Publica in November 2010, in 2010, the City of Pittsburgh City Council unanimously voted to ban within the City Limits citing health and environmental concerns. In 2015, per the daily Caller, the Maryland law became effective

that imposes a moratorium on fracking in Maryland and prevents Maryland regulators from issuing fracking permits until October 2017. The bill requires the state to adopt regulations by October 2016.

With respect to seismic activity,

[REDACTED]

Lastly, water contamination, handling and disposal is another area of focus and potential concern in drilling and hydraulic fracturing. The USGS (United States Geological

Survey) FAQ noted water usage can vary and estimates that the average reported water usage per well in the Marcellus shale play is 4.5 million gallons.

With the above examples and background, it is difficult to predict impacts to shale supply availability related to current or future regulatory and environmental requirements related to shale production and hydraulic fracturing activities.

h. Future production of shale formations.

Response:

[Redacted content]

[REDACTED]

- i. Pipeline and gas transmission network issues.

Response:

With the on-going growth in gas generation and growing importance to the electric grid, having access to supply with the needed pipeline delivery infrastructure is critical. In addition, as gas generation grows, timing of needed approvals and the in service of required new or expanded infrastructure pipeline projects is a critical component to ensure gas is available to meet new gas generation projects. As gas generation grows, end users will need to evaluate gas infrastructure and service requirements to access needed supply and manage needed firm pipeline transportation to mitigate potential gas transmission constraints. Pipeline transportation and market services required by the respective electric generation companies could vary by company based on the make-up and location of their generation, location of gas production and pipeline access, and reliance on pipeline infrastructure.

- j. Decline rate for production of gas from shale gas rigs.

Response:

Oil and gas well production rates decline as a function of time due to loss of reservoir pressure. Per an article in the Beacon Journal in January 2015, Dr. Jeffrey C. Dick, a professor and chair of the department of geology and environmental sciences at Youngstown State University examined Tippens 6HS well located in Monroe County in southeastern Ohio. In summary, per the article determining decline rates is not easy, he said, because drilling companies have different approaches to production. Some want to

draw down wells quickly, while others might restrict production to extend the lives of the wells. An analysis of Utica wells tapped in each of the first four quarters from July 2013 through June 2014 shows natural gas production had dropped 65 percent. He estimated that Utica Shale production will drop 33 percent in the second year of a well's life and another 22 percent in the third year. Decline is projected at another 17 percent in the fourth year, followed by 13 percent and 11 percent in the next two years, he said in a review that has circulated widely. Such numbers are evidence of what drillers call "production decline curves" — drop-offs over time. It is a common (and expected) occurrence for shale wells, even in wells expected to produce for 30 years or more. The bottom line: Shale wells produce the most in the first few years or, as evidenced in the sharply declining production rates in Ohio, their first few months.

k. Productivity gains for shale gas production.

Response:

In general, although results may vary by producer and region, as shale production has increased, producers have continued to look for ways to enhance and improve technological production methods to increase output, efficiency and reduce production costs in order to improve well economics. In the article, "More efficient fracking means more oil and natural gas" per McClatchy DC, October 2014 it was reported that drillers have honed their fracking techniques since the start of the energy boom and are now getting far more oil and gas from each rig. Five major shale areas in the U.S. have seen increased production per rig in the last few years with the Eagle Ford leading the efficiency increase for oil production and the Marcellus shale of Pennsylvania tops for natural gas. From the article, one new technique is a big increase in the amount of sand used to prop open the tiny cracks created when the chemical-spiked water fractures the shale rock. The technique appears to boost the initial production rates although it tends to be followed by a quicker decline in the well than otherwise. Another method being adopted by drillers is to use geologic data to pinpoint the best spots along the horizontal well to frack rather than spacing them evenly across the five or ten thousand feet of well.

Per the article, the growth in the drill boom has environmental downsides with complaints about industrial sand mining and the huge amounts of water used in fracking. The McClatchy article states its inconclusive if the engineering is going to mean more total output pumped from each well or just run dryer faster. In summary, producers continue to enhance production methods to increase efficiency and potential output.

1. Financial strains on producers.

Response:

Given current market conditions, there are indications that oil and gas related companies are under greater financial strain which has resulted in capital spending reductions and put some companies in severe financial strain. For example, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] In addition, the Marcellus Shale Coalition industry advocacy group based in Pittsburgh reported on July 20, 2015, in summary that twenty-two (22) energy companies with operations in Pennsylvania have reduced capital expenditures anywhere from 12% to 74%. The Oil & Gas Journal (April 2015) reported that oil and gas companies have slashed budgets in an effort to pull spending back with sharply diminished cash flow. Per the article, for US E&P only, Oil and Gas Journal (OGJ) projects spending in 2015 to be \$203.24 billion down 32% from last year. OGJ based its spending forecast on company data and a rig count projection that assumed the crude price would remain below \$60/bbl. Per the [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

As summarized in 37a, b and c above, the impact of lower oil prices and current market conditions have resulted in significant declines in rig count, and reductions in capital spending from drilling budgets. As outlined in 37j, declining rates of production may require on-going capital to maintain and grow production in spite of efficiency gains. If these factors persist, as noted in other sections, it may lead to flattening to declining gas production in the nearer term until market conditions improve.

As noted above, numerous variables can impact gas supply and demand and ultimately prices. Neither the company nor market price forecasters of prices can predict with certainty where prices will ultimately settle for 2016 and beyond. For reference, the company is providing the current forecast from EIA's 2015 Annual Energy Outlook reference case outlook, Energy Ventures Analysis Fall 2015 Long-Term outlook, and recent market prices for the periods of 2016 through 2020. Per the 2015 EIA annual energy outlook, the reference nominal Henry Hub price for 2016 through 2020 are forecasted to be \$3.90, \$4.09, \$4.61, \$5.07 and \$5.54 per MMBtu, respectively which equates to a simple average price for the five year period of \$4.64 per MMBtu. EIA Henry Hub referenced prices are located at,

http://www.eia.gov/forecasts/aeo/tables_ref.cfm. and reference Table 13 Natural Gas Supply Disposition and Prices. Per [REDACTED], the nominal Henry Hub spot prices for each year from 2016 through 2020 are forecasted to be [REDACTED], per MMBtu, respectively which equates to a simple average price for the five year period of [REDACTED] per MMBtu. In

reviewing current market price indications for the periods of 2016 through 2020, the current market prices as of October 2, 2015, for the NYMEX Henry Hub contract for each year 2016 through 2020 are \$2.772, \$2.961, \$3.031, \$3.094 and \$3.205 per MMBtu, respectively which equates to a simple average price for the five year period of approximately \$3.013 per MMBtu, a record settlement low for this time period.

The market prices referenced above can be found at http://www.cmegroup.com/trading/energy/natural-gas/natural-gas_quotes_settlements_futures.html#tradeDate=10/02/2015.

Exhibit C

DUKE ENERGY FLORIDA Confidentiality Justification Matrix

DOCUMENT/RESPONSES	PAGE/LINE	JUSTIFICATION
DEF's Response to Staff's Seventh Set of Interrogatories (No. 37)	Question 37 subsections a & b: The remainder of the response after the sentence ending "37c below".	§366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.
DOCUMENT/RESPONSES	PAGE/LINE	JUSTIFICATION
DEF's Response to Staff's Seventh Set of Interrogatories (No. 37)	Question 37 subsection c: The portion of the response after "according to" and before "There can be".	§366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.
DOCUMENT/RESPONSES	PAGE/LINE	JUSTIFICATION
DEF's Response to Staff's Seventh Set of Interrogatories (No. 37)	Question 37 subsection d: The remaining portion of the response after "Per the".	§366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.
DOCUMENT/RESPONSES	PAGE/LINE	JUSTIFICATION
DEF's Response to Staff's Seventh Set of Interrogatories (No. 37)	Question 37 subsection e: The entire first paragraph of the response , the remaining portion of the second paragraph after "recently	§366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests,

	by”, portions of the third paragraph after “in another” and before “Please see.	the disclosure of which would impair the competitive business of the provider/owner of the information.
DOCUMENT/RESPONSES	PAGE/LINE	JUSTIFICATION
DEF’s Response to Staff’s Seventh Set of Interrogatories (No. 37)	Question 37 subsection f: the entire first paragraph before “In addition” and the remaining portion of the response after natural “gas prices”.	§366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.
DOCUMENT/RESPONSES	PAGE/LINE	JUSTIFICATION
DEF’s Response to Staff’s Seventh Set of Interrogatories (No. 37)	Question 37 subsection g: The remaining portion of the third paragraph after “seismic activity”.	§366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.
DOCUMENT/RESPONSES	PAGE/LINE	JUSTIFICATION
DEF’s Response to Staff’s Seventh Set of Interrogatories (No. 37)	Question 37 subsection h: the response in its entirety.	§366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.
DOCUMENT/RESPONSES	PAGE/LINE	JUSTIFICATION
DEF’s Response to Staff’s Seventh Set of Interrogatories (No. 37)	Question 37 subsection I: the portion of the response in the first paragraph after “For Example” and before “In addition” and the remainder of the first paragraph after “Per the”. Portions of the response in the third paragraph after “per” “and before “the nominal”, after “forecasted	§366.093(3)(e), F.S. The document in question contains confidential information relating to competitive business interests, the disclosure of which would impair the competitive business of the provider/owner of the information.

	to be” and before “per MMBtu”, after “period of” and before “per MMBtu”.	
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Exhibit D
AFFIDAVIT OF
JOSEPH MCCALLISTER

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Fuel and purchased power cost
recovery clause with generating
performance incentive factor.

Docket No. 150001-EI

Dated: October 8, 2015

**AFFIDAVIT OF JOSEPH MCCALLISTER IN SUPPORT OF
DUKE ENERGY FLORIDA'S
REQUEST FOR CONFIDENTIAL CLASSIFICATION**

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

BEFORE ME, the undersigned authority duly authorized to administer oaths, personally appeared Joseph McCallister, who being first duly sworn, on oath deposes and says that:

1. My name is Joseph McCallister. I am over the age of 18 years old and I have been authorized by Duke Energy Florida (hereinafter "DEF" or the "Company") to give this affidavit in the above-styled proceeding on DEF's behalf and in support of DEF's Request for Confidential Classification (the "Request"). The facts attested to in my affidavit are based upon my personal knowledge.

2. I am the Director of Natural Gas, Oil and Emissions in the Fuel Procurement Department. This section is responsible for natural gas, fuel oil and emission allowance activity for the Duke Energy Indiana (DEI), Duke Energy Kentucky (DEK), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP), and DEF Systems.

3. As the Director of Natural Gas, Oil and Emissions, I am responsible, along with the other members of the section, for the management of the gas and oil

procurement, transportation, hedging activities and administration of gas and oil contracts with various suppliers for DEI's, DEK's, DEC's, DEF's and DEP's electrical power generation facilities.

4. DEF is seeking confidential classification for certain information contained in its responses to Staff's Seventh Set of Interrogatories (No. 37), specifically subsections a, b, c, d, e, f, g, h and l, submitted on October 8, 2015 in this docket. A detailed description of the confidential information at issue is contained in confidential Exhibit A to DEF's Request and is outlined in DEF's Justification Matrix that is attached to DEF's Request as Exhibit C. DEF is requesting confidential classification of this information because it contains confidential proprietary business information that relates to the competitive interests of DEF and its vendors, the disclosure of which would impair their competitive businesses.

5. In order to obtain information regarding the current and projected state of fuel markets, Duke Energy contracts with vendors for access to research material and other market data. DEF must protect from public disclosure confidential sensitive business information, such as reviews of industry sources, articles and summaries that have not been disclosed by its vendors. The confidential information at issue relates to information obtained from non-public sources. In order to obtain such information, however, DEF must be able to assure its vendors that sensitive business information will be kept confidential. With respect to the information at issue in this Request, DEF and its vendors have kept confidential and have not publicly disclosed this confidential information. Without DEF's measures to maintain the confidentiality of this information,

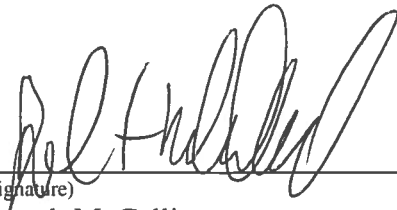
the Company's efforts to obtain necessary market analysis and projection information that provides economic value to both DEF and its customers could be undermined.

6. Upon receipt of confidential information from its vendors, and with its own confidential information, strict procedures are established and followed to maintain the confidentiality of the terms of the documents and information provided, including restricting access to those persons who need the information to assist the Company, and restricting the number of, and access to the information and contracts. At no time since receiving the information in question has the Company publicly disclosed that information. The Company has treated and continues to treat the information and contracts at issue as confidential.

7. This concludes my affidavit.

Further affiant sayeth not.

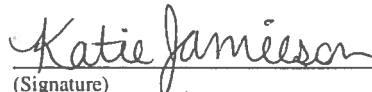
Dated the 6th day of October, 2015.



(Signature)

Joseph McCallister
Director – Natural Gas, Oil and Emissions
Fuels Procurement Department
Duke Energy
526 South Church
Charlotte, NC 28202

THE FOREGOING INSTRUMENT was sworn to and subscribed before me this 6 day of October, 2015 by Joseph McCallister. He is personally known to me, or has produced his _____ driver's license, or his _____ as identification.



(Signature)

Katie Jamieson

(Printed Name)

NOTARY PUBLIC, STATE OF NC

June 14, 2016

(Commission Expiration Date)

(AFFIX NOTARIAL SEAL)



(Serial Number, If Any)