

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Determination) DOCKET NO. 140111-EI
of Cost Effective Generation Alternative)
to Meet Need Prior to 2018 for Duke) Submitted for filing: August 5, 2014
Energy Florida, Inc.)
_____)

DUKE ENERGY FLORIDA, INC.'S NOTICE OF FILING

Duke Energy Florida, Inc. ("DEF" or the "Company") hereby gives notice of filing the Rebuttal Testimony of Jeffrey Patton in support of DEF's Petition for Determination of Cost Effective Generation Alternative to Meet Need Prior to 2018 for Duke Energy Florida, Inc. filed May 27, 2014 (Document No. 02534-14).

Respectfully submitted this 5th day of August, 2014.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY a true and correct copy of the foregoing has been furnished to counsel and parties of record as indicated below via electronic mail and overnight mail this 5th day of August, 2014.

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Petition for Determination
of Cost Effective Generation Alternative
to Meet Need Prior to 2018 for Duke
Energy Florida, Inc.**

DOCKET NO. 140111-EI
Submitted for filing:
August 5, 2014

**REBUTTAL TESTIMONY
OF JEFFREY PATTON**

**ON BEHALF OF
DUKE ENERGY FLORIDA, INC.**

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IN RE: PETITION FOR DETERMINATION OF COST EFFECTIVE GENERATION

ALTERNATIVE TO MEET NEED PRIOR TO 2018 FOR

DUKE ENERGY FLORIDA, INC.

BY DUKE ENERGY FLORIDA, INC.

FPSC DOCKET NO. 140111-EI

REBUTTAL TESTIMONY OF JEFFREY PATTON

1 **I. INTRODUCTION AND QUALIFICATIONS.**

2 **Q. Please state your name, employer, and business address.**

3 A. My name is Jeffrey Patton and I am employed by Duke Energy Progress, Inc., an affiliate
4 company of Duke Energy Florida, Inc. (“DEF or the Company”). My business address is
5 526 South Church Street, Charlotte, North Carolina 28202.

6
7 **Q. Please tell us your position with Duke Energy Progress and describe your duties and**
8 **responsibilities in that position.**

9 A. I am a Senior Originator in the Fuel Procurement Section of the Fuels & Systems
10 Optimization Department for Duke Energy’s regulated generation fleet. In this role, I am
11 responsible for the procurement of natural gas supply, transportation and storage services
12 for DEF, Duke Energy Progress, Duke Energy Carolinas, Duke Energy Indiana, and
13 Duke Energy Kentucky electrical power generation facilities. As a result, my
14 responsibilities include developing natural gas planning strategies and negotiating long-
15 term agreements with various pipelines and suppliers.

1 **Q. Please summarize your educational background and employment experience.**

2 A. I hold a Bachelor of Science in Mechanical Engineering from Mississippi State
3 University and a Master of Business Administration from Auburn University. Prior to
4 the merger between Progress Energy and Duke Energy, I served as a Senior Business
5 Financial Analyst at Progress Energy from 2005 to mid-2008, responsible for wholesale
6 electric revenue forecasting and budgeting supporting Progress Energy's regulated
7 commercial operations. In mid-2008 I moved to my current role. Prior to my tenure at
8 Progress Energy, I was employed by Consolidated Edison from 2004 to 2005 as a Senior
9 Rate Analyst responsible for developing gas tariff filings and preparing analyses that
10 formed the basis for Consolidated Edison's natural gas rates and services. Before joining
11 Consolidated Edison I was employed by Southern Company from 1998 to 2003 in
12 various roles in Generation Planning and Development, as well as Energy Marketing,
13 supporting the planning, development and wholesale marketing of Southern Company's
14 natural gas-fired generation portfolio.

15
16 **Q. Have you previously filed direct testimony in this Docket?**

17 A. No. I did file direct testimony in Docket No. 140110-EI regarding the natural gas
18 transportation and supply for the Citrus County Combined Cycle Power Plant that is the
19 subject of the Petition in that Docket. In this Docket, I am responding to the direct
20 testimony of intervenor NRG Florida LP ("NRG") witness Jim Dauer and Calpine
21 Construction Finance Company, L. P. ("Calpine") witness Paul Hibbard who both filed
22 identical direct testimony in this Docket and in Docket No. 140110-EI.

23

1 **Q. Why are you filing your rebuttal testimony in this Docket if these witnesses filed**
2 **identical testimony in both dockets?**

3 A. I understand that NRG did not provide a bid proposal in response to the Company's 2018
4 Request for Proposal ("2018 RFP") for generation capacity alternatives to the Citrus
5 County Combined Cycle Power Plant, but NRG did provide a proposal for alternative
6 generation capacity to meet DEF's need prior to 2018, therefore, Mr. Dauer's direct
7 testimony is relevant only to the issues in this Docket. Mr. Dauer confirms this
8 conclusion by referring in his identical direct testimony in both dockets only to the NRG
9 plant acquisition proposal that I understand was submitted by NRG in response to the
10 Company's generation capacity need prior to 2018.

11 Likewise, while Mr. Hibbard filed identical direct testimony in both dockets, Mr.
12 Hibbard only refers to the Calpine proposal that was submitted by Calpine in response to
13 the Company's generation capacity need prior to 2018. Mr. Hibbard does not reference
14 Calpine's bid proposal in response to the Company's 2018 RFP in his direct testimony. I
15 have accordingly filed my rebuttal testimony to his direct testimony regarding the firm
16 natural gas transportation for the Calpine plant in this Docket.

17
18 **II. PURPOSE AND SUMMARY OF TESTIMONY.**

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

20 A. I am testifying on behalf of DEF, in support of its Petition for the determination of the
21 cost effective generation alternative to meet DEF's need prior to 2018, by rebutting the
22 respective criticisms by NRG witness Jim Dauer and Calpine witness Paul Hibbard
23 regarding DEF's estimated cost for firm natural gas transportation for their plants in

1 DEF's evaluation of their proposals for the potential acquisition of the NRG and Calpine
2 plants to meet DEF's need for generation capacity prior to 2018.

3
4 **Q. Are you sponsoring any exhibits to your rebuttal testimony?**

5 A. No.

6
7 **Q. Please summarize your testimony.**

8 A. DEF reasonably calculated and evaluated the firm gas transportation requirements in its
9 evaluation of the NRG Osceola and the Calpine Osprey plant acquisitions and DEF's
10 self-build generation projects to determine the most cost effective generation alternative
11 to meet DEF's need prior to 2018. NRG justifies its failure to include sufficient firm gas
12 transportation in its acquisition proposal for the NRG Osceola plant, if it was acquired by
13 DEF, by referring to past NRG gas transportation arrangements and practices that simply
14 are unreasonable for a regulated public utility like DEF to employ if DEF incorporated
15 the NRG Osceola plant as a firm generation resource on its system to meet its customers'
16 long-term energy requirements. DEF cannot and will not take the risk that such non-firm,
17 "spot" and other market-based gas transportation and delivered supply arrangements will
18 provide the gas DEF would need to economically dispatch the NRG Osceola plant with
19 other DEF generation resources on its system to reliably meet load for DEF's customers.

20 Conversely, while Calpine understands the need for long-term firm gas
21 transportation for its Osceola plant and provided for it in Calpine's proposal, Calpine
22 wants DEF to "credit" its proposal with the DEF system firm gas transportation benefits
23 that are available for DEF's Suwannee Simple Cycle Project, thus, reducing the cost of

1 firm gas transportation for the Calpine Osprey plant in the Calpine plant acquisition
2 proposal. Calpine ignores the physical and contractual limitations on DEF transferring
3 the gas under these system firm gas transportation arrangements to the Calpine Osprey
4 plant. As a result, DEF cannot “credit” Calpine with benefits that do not exist for its
5 plant. These are DEF “system” benefits too, created as a result of DEF’s portfolio of firm
6 gas transportation contracts for DEF’s generation system that simply cannot be isolated
7 and given away as Calpine proposes. DEF, in fact, would not give them away, its
8 system-wide firm gas transportation benefits are maintained for the benefit of DEF’s
9 customers, and DEF would use them for the benefit of DEF’s customers even if DEF did
10 not build the Suwannee Simple Cycle Project. As a result, DEF fairly and reasonably
11 evaluated the firm gas transportation requirements in its evaluation of the most cost
12 effective generation alternative to meet DEF’s need prior to 2018.

13
14 **III. DEF’S EVALUATION OF THE MOST COST EFFECTIVE GENERATION**
15 **ALTERNATIVE TO MEET DEF’S NEED PRIOR TO 2018.**

16
17 **Q. Did DEF evaluate the NRG Osceola plant acquisition and the Calpine Osprey plant**
18 **acquisition in its evaluation of the most cost effective generation alternative to meet**
19 **DEF’s need prior to 2018?**

20 A. Yes. As discussed in the direct and rebuttal testimony of Mr. Benjamin M.H. Borsch,
21 DEF solicited other utilities and non-utility generators for proposals to determine the
22 most cost effective generation resource to meet the Company’s need prior to 2018. DEF
23 performed economic, qualitative, and, when necessary, Federal Energy Regulatory
24 Commission (“FERC”) market screen analyses on the proposals received, including the
25 NRG Osceola and the Calpine Osprey plant acquisitions, in its evaluation to determine

1 the most cost effective generation resource to meet the Company's need prior to 2018.

2
3 **Q. Generally, what were the results of the evaluation?**

4 A. As a general matter, as described by Mr. Borsch in his direct testimony, I understand that
5 DEF determined that the Company's self-build generation projects, the Suwannee Simple
6 Cycle Project and the Hines Chillers Power Uprate Project, were the most cost effective
7 generation capacity to meet DEF's need prior to 2018. DEF determined in its evaluation
8 that neither the NRG Osceola acquisition nor the Calpine Osprey acquisition proposal
9 was the most cost effective generation capacity resource alternative to meet DEF's need
10 prior to 2018.

11
12 **Q. Did DEF include firm natural gas transportation costs in its evaluation?**

13 A. Yes. As described by Ben Borsch in his testimony I understand the Company's self-build
14 generation and the NRG and Calpine proposals were natural-gas fired generation capacity
15 proposals. The NRG Osceola plant is a combustion turbine ("CT") plant and the Calpine
16 Osprey plant is a combined cycle ("CC") generation plant. The Suwannee Simply Cycle
17 Project is a CT plant and the Hines Chillers Power Uprate Project is a power uprate at
18 DEF's Hines CC generation plants. Firm natural gas transportation was required for all
19 proposals.

20 As I understand it, both NRG and Calpine recognized this requirement. Both of
21 them included some cost for firm natural gas transportation for their plants in their
22 proposals. The NRG proposal did not provide sufficient firm gas transportation for their
23 plant if it was acquired and included as firm generation capacity resources on DEF's

1 system.

2 Mr. Borsch and his team consulted with me in the evaluation of the natural gas
3 transportation requirements for the proposals including the NRG and Calpine proposals.
4 Their proposed natural gas transportation arrangements provided less firm gas
5 transportation capacity than what is typical for DEF facilities of the same type. For this
6 reason, DEF in its initial economic analysis noted these costs among the costs that were
7 not fully developed in the proposals. In particular, this was a factor with respect to the
8 NRG Osceola plant acquisition proposal. This assessment is described in Mr. Borsch's
9 direct testimony in this Docket. (Borsch Direct Testimony ("Test."), p. 41, lines 12-21).

10 As a result, DEF recognized that the firm natural gas transportation was
11 inadequate in the NRG proposal for that plant if it were acquired as a firm generation
12 capacity resource on DEF's system and that the full cost of the available gas contract
13 needed to be accounted for in the case of the Calpine proposal. Additional costs for firm
14 natural gas transportation for both the NRG Osceola plant and the Calpine Osprey plant
15 acquisition proposals were required in the evaluation to ensure reliable natural gas
16 transportation to the plants if they were acquired as firm generation capacity resources on
17 DEF's system.

18
19 **Q. What does Mr. Dauer claim in his direct testimony in this Docket?**

20 A. Mr. Dauer claims in part that --- since NRG's Osceola plant purportedly had sufficient
21 natural gas supply in a past three-year period under a tolling arrangement in a power
22 purchase agreement ("PPA") to meet its capacity obligations under the PPA with another
23 utility, (Seminole Electric Cooperative ("SEC")), with different system characteristics

1 than DEF --- DEF should have assumed in its evaluation that DEF would be able to
2 obtain sufficient natural gas for the NRG Osceola plant under similar arrangements for
3 the long term planning and the future if DEF acquired the plant. (Dauer Direct Test., pp.
4 5-8). As such, Mr. Dauer concludes that DEF should not have included additional firm
5 natural gas transportation costs or considered this a cost sensitivity risk in its evaluation
6 of the NRG Osceola plant acquisition proposal, which DEF did in its evaluation, as
7 discussed in Mr. Borsch's direct testimony in this Docket. (Borsch Direct Test., p. 41,
8 lines 12-21; Exhibit No. ____ (BMHB-9)).
9

10 **Q. What else does Mr. Dauer claim in his testimony?**

11 A. Mr. Dauer also claims that there are several "readily-available lower cost options" to the
12 firm gas transportation requirements DEF used for the NRG Osceola plant in its
13 evaluation of the NRG plant acquisition proposal, and that since the NRG plant has dual-
14 fuel capability, DEF could use the backup No. 2 fuel oil available at the plant if natural
15 gas was not available under his "readily-available lower cost options" for the gas supply
16 to the plant if it was acquired by DEF. (Dauer Direct Test., pp. 9-10).
17

18 **Q. Do you agree with Mr. Dauer's claims?**

19 A. No. First, Mr. Dauer's testimony exhibits a basic misunderstanding of how DEF, a
20 regulated public utility with an obligation to provide at all times reliable electric service
21 to its customers, is necessarily required to structure gas transportation for its generation
22 system resources to meet that obligation to its customers. Mr. Dauer's direct testimony,
23 as a whole, is based on the false premise that the past gas transportation arrangements and

1 practices utilized by SEC that satisfied NRG as an Independent Power Producer selling
2 capacity and energy under PPAs should also satisfy DEF as a regulated public utility that
3 would be incorporating the NRG Osceola plant as a firm generation resource on its
4 system to meet its customers' requirements over the long term. DEF cannot take on the
5 risk like an Independent Power Producer can that gas transportation will be available at a
6 plant when the power from that plant is needed to meet customer load. DEF, instead,
7 needs to provide for sufficient firm gas transportation for its system --- including the
8 NRG plant if it is acquired --- to ensure that gas is available at a reasonable price at all
9 times to meet customer load requirements.

10
11 **Q. Can you explain what you mean when you say that DEF cannot “take on the risk”**
12 **like an Independent Power Producer that natural gas supply will be available at a**
13 **reasonable price to supply a plant on its system?**

14 A. Yes. This point is demonstrated by two of the three “readily available lower cost
15 options” that Mr. Dauer claims are available to DEF if DEF simply obtained gas for the
16 plant the way NRG apparently has operated the plant in the past as an Independent Power
17 Producer under PPAs for the plant capacity. (Dauer Direct Test., pp. 9-10). These two
18 “options” are not firm gas transportation arrangements at all --- despite Mr. Dauer’s use
19 of the term “firm” in his description of them --- they are essentially market transactions
20 that require DEF to “take on the risk” that the options will be available and reasonably
21 priced when DEF needs it to operate a peaking facility that generally operates on peak
22 hours on peak days over the long-term.

1 Mr. Dauer claims that DEF “could” buy “firm” delivered supply from third party
2 shippers “on an as-needed basis.” (Dauer Direct Test., p. 9, lines 7-8). Mr. Dauer cannot
3 and does not testify to the actual hours in the future when the NRG plant will not be
4 needed to economically produce power to meet DEF’s future load requirements on its
5 system, if DEF acquired the NRG Osceola plant and incorporated the plant into its
6 system as a firm generation resource.

7 Buying “firm” delivered supply “on an as-needed basis” in the future is not “firm”
8 at any time before the actual delivered supply is purchased for the plant. There are no
9 assurances --- and Mr. Dauer provides none --- that DEF will find a natural gas supplier
10 with available firm gas transportation capacity who can actually get the gas from a
11 presently unknown location to the NRG plant at a reasonable price every time in the
12 future when DEF needs the NRG plant capacity on DEF’s system. At this time --- given
13 what little we know and Mr. Dauer knows about the exact future times when DEF must
14 buy firm delivered natural gas supply for the plant “on an as-needed basis” if it was
15 acquired by DEF --- it is just as likely that (i) the firm delivered gas supply will not be
16 available; or (ii) even if firm delivered gas supply for the volume and term required is
17 available and the gas can be physically moved, it can only be accomplished at a premium
18 price to DEF’s customers.

19
20 **Q. What is the second “lower cost option” that Mr. Dauer recommends that would**
21 **involve DEF taking on risk?**

22 A. This “lower cost option” that Mr. Dauer recommends is that DEF “could” seek additional
23 firm transportation capacity “in the short-term capacity release market.” (Dauer Direct

1 Test., p. 9, lines 13-14). Again, this is not firm gas transportation capacity at any time
2 until someone releases that capacity and DEF actually buys it. This “option” is nothing
3 more than “spot” market firm gas transportation purchases. Mr. Dauer cannot reasonably
4 suggest that a public utility like DEF with an obligation to provide customers reliable
5 electric service at all times should rely on “spot” market firm gas transportation
6 purchases for its plants on DEF’s system, including the NRG Osceola plant if DEF
7 acquired it. Importantly too, when shippers “have excess capacity in their portfolios” to
8 release “in the short-term capacity release market” (Dauer Direct Test., p. 9, lines 13-14,
9 16-17), it likely will not be during peak load periods. During peak load periods shippers
10 will not be releasing gas transportation capacity into the market or if they do it will be at
11 a higher price. Yet, the peak load periods when shippers will not be releasing gas
12 transportation capacity into the market or will do so only at premium prices are the time
13 periods when DEF must have firm gas transportation for the full capacity of the NRG
14 plant on its system if the peaking plant was acquired by DEF.

15 In sum, Mr. Dauer’s “low cost options” to transport gas to the NRG Osceola plant
16 may have worked in the past for NRG, as Mr. Dauer suggests, but NRG apparently was
17 willing to assume the risk either of not obtaining gas transportation or not obtaining it at a
18 reasonable price if these “options” were unsuccessful in obtaining firm gas transportation
19 when it was needed over the long term. DEF instead plans and provides for sufficient
20 firm gas transportation in advance to ensure the economic dispatch of generation
21 resources whenever they are needed to meet load in the most cost effective and reliable
22 manner for DEF’s customers.

1 **Q. Mr. Dauer identifies firm transportation costs in the gas transportation capacity**
2 **release market that he claims are a fraction of the costs DEF imputed to the NRG**
3 **Osceola plant in its evaluation. Do you agree that these costs are representative of**
4 **the firm gas transportation costs DEF will incur if it acquired the NRG plant and**
5 **purchased gas transportation on the spot market?**

6 A. No. Mr. Dauer lists “some” gas transportation prices when he reviewed the Florida Gas
7 Transportation (“FGT”) rates on some unspecified date or dates in the past for some
8 unspecified time periods during the “summer period” and “in the winter.” (Dauer Direct
9 Test., p. 9, lines 18-21). Notwithstanding this, utilizing historical costs or examples of
10 capacity that was released at lower prices does not tell us over the long-term if any gas
11 transportation capacity will be available when it is needed, and at these costs, in the
12 future.

13 As explained above, potential “spot” market purchases are not firm natural gas
14 transportation until someone releases that capacity and DEF actually buys it. Further,
15 historical costs are not indicative of future long-term costs when supply and demand is
16 changing on the gas transportation and electric generation system.

17
18 **Q. What about the other “low cost option” that Mr. Dauer claims DEF could have used**
19 **in its evaluation of NRG’s acquisition proposal?**

20 A. Mr. Dauer claims DEF could acquire but did not include in its evaluation the FTS-2 gas
21 transportation tariff rate that NRG has under a contract NRG said it would transfer to
22 DEF as part of the NRG plant acquisition transaction. (Dauer Direct Test., p. 9, lines 2-
23 6). DEF did include this firm gas transportation under that contract for the NRG plant in

1 its economic evaluation of the NRG plant acquisition. In DEF's model, DEF used the
2 FTS-2 tariff rate cap identified in NRG's contract with FGT. While the tariff rate is
3 lower today, DEF was evaluating the cost impact over a 25-year period and so DEF
4 assumed the rate cap of \$.80/mmbtu in that contract in its economic evaluation. The
5 issue is, this NRG contract is not sufficient firm gas transportation for all the NRG plant
6 capacity and it is the additional firm gas transportation for the remaining plant capacity
7 that was added by DEF in its evaluation of the NRG plant acquisition.

8
9 **Q. Mr. Dauer also claims that NRG operated its NRG Osceola plant under a gas**
10 **transportation tolling arrangement with SEC, without the firm gas transportation**
11 **requirements that DEF requires, and never had a problem supplying power from**
12 **the plant to SEC when SEC needed it. Do you agree that DEF could employ these**
13 **same gas transportation arrangements for that plant if DEF acquired it?**

14 A. No. First, as I explained above, whatever arrangements NRG as an Independent Power
15 Producer had with SEC in the past have no bearing on the long-term firm gas
16 transportation requirements for firm generation resources on DEF's system.

17 Second, Mr. Dauer's direct testimony describing the historical operation of the
18 NRG Osceola plant from 2011 through 2013 under the fuel tolling arrangements in the
19 PPA with SEC implies that these circumstances will be exactly the same in the future if
20 DEF acquired the NRG Osceola plant and incorporated it as a firm resource on DEF's
21 generation system for the asset's remaining life. This implicit assumption in Mr. Dauer's
22 testimony simply is not true.

23 To illustrate, Mr. Dauer describes and includes a graph of the natural gas usage

1 patterns for the NRG Osceola plant over the three year period 2011-2013. He implies
2 that his calculation of the average and maximum daily gas usage during this three year
3 period is relevant to the future gas usage on DEF's system if DEF acquired the plant.
4 (Dauer Direct Test., p. 4). This average and maximum daily gas usage represents the
5 historical gas usage in a different time period for a different utility with different load
6 requirements and system needs for the plant. This data tells us nothing about the average
7 and maximum daily gas usage of the NRG Osceola plant if DEF acquired it in the future
8 and incorporated it as a firm generation resource available for economic dispatch on
9 DEF's system.

10 Next, Mr. Dauer describes in his direct testimony how SEC was able to transport
11 and supply gas to the NRG Osceola plant under the SEC fuel tolling arrangements to
12 meet SEC's needs for capacity from the plant under NRG's PPA with SEC. (Dauer
13 Direct Test., pp. 5-8). He argues that SEC was able to do this without using NRG's
14 existing firm gas transportation contracts at the time (some of which have now expired).
15 His point is that DEF incorrectly assumed in its evaluation of the NRG plant acquisition
16 that additional firm gas transportation on the FGT East Leg where the NRG Osceola plant
17 is located is required if DEF acquired the NRG Osceola plant. (Dauer Direct Test., pp. 5-
18 8).

19 To begin with, Mr. Dauer concedes that the NRG Osceola plant is located on the
20 FGT East Leg and that "during periods of high demand the East Leg is occasionally fully
21 utilized." (Dauer Direct Test., p. 5, lines 4, 6-7). Now during peak periods, it is actually
22 constrained.

23 Mr. Dauer does not mention in his direct testimony that Florida Power & Light

1 Company ("FPL") has added the approximate 1,200 MegaWatt ("MW") Cape Canaveral
2 combined cycle plant in April 2013 and the approximate 1,200 MW Riviera Beach
3 combined cycle plant to the FGT East Leg in April 2014, near the end of and after the
4 2011-2013 period he discusses in his testimony. He also does not mention that the FGT
5 Phase VIII Expansion Project that he references on page 5 in between his admission that
6 the NRG plant is on the FGT East Leg and his admission that the FGT East Leg is
7 "occasionally" fully utilized during peak periods was an expansion on the FGT West Leg,
8 not the FGT East Leg. (Dauer Direct Test., p. 5, lines 3-9). Furthermore FPL is
9 constructing an approximate 1,200 MW Port Everglades combined cycle plant with a
10 mid-2016 in service date on the FGT East Leg.

11 For these reasons, among others, NRG's historical experience with moving gas
12 from the FGT West Leg (or elsewhere) to the NRG plant on the FGT East Leg that he
13 describes in his testimony has no bearing on the availability of gas transportation in the
14 future for the NRG plant if DEF purchased it and added it to DEF's generation system.
15 This is especially true for peak periods when DEF would need a peaking capacity plant
16 like the NRG plant to economically and reliably provide power to its customers.

17
18 **Q. Are there other problems with applying NRG's historical experience under its PPA**
19 **with SEC to DEF's future supply of gas to operate the NRG plant on DEF's system**
20 **if DEF acquired the plant?**

21 A. Yes. SEC's ability in the past to move gas obtained on a firm basis on the FGT West Leg
22 to the NRG Osceola plant located on the FGT East Leg does not mean that DEF can
23 move gas the same way to the NRG plant in the future with its firm gas transportation

1 rights on the FGT West Leg. Nominating gas to the NRG Osceola plant “on a secondary
2 basis” by using DEF’s existing capacity on the FGT West Leg -- which Mr. Dauer
3 suggests in his testimony DEF can do based on what SEC did in the past -- is yet another
4 example of Mr. Dauer suggesting that DEF take unnecessary risks with its gas
5 transportation arrangements for the NRG plant if DEF acquired the plant. (Dauer Direct
6 Test., p. 8, lines 5-15).

7 Gas transportation on a secondary basis is a low priority gas reservation on the
8 gas supplier’s transportation system. That means that, under a secondary reservation gas
9 nomination to ensure that gas actually reaches the plant when it is needed, there must not
10 only be no higher priority gas reservation when the secondary nomination is exercised,
11 but there also must be a path available to move the quantity of gas sought at that specific
12 time in the future from wherever it is located to the plant. Nominating gas on a
13 secondary basis to deliver gas from one point to another on the gas transportation system
14 is, therefore is a riskier arrangement to employ if you want to ensure that gas actually is
15 transported from the supply source to a particular plant when it is needed at that plant
16 during critical peak periods on segments of a gas transportation system that is fully
17 utilized (e.g. FGT East Leg).

18 To illustrate this risk with the NRG plant, because the NRG Osceola plant is
19 located on the FGT East Leg, it is an “out-of-path” transaction to move the gas on a
20 secondary basis from the FGT West Leg to the NRG plant located on the FGT East Leg.
21 If there is a higher priority at the time of the secondary basis nomination, or the pathways
22 from either the FGT West Leg to the FGT East Leg or on the FGT East Leg to the plant
23 are at full capacity and fully utilized, the gas will not flow to the NRG plant when it is

1 needed.

2 DEF reasonably assumed in its evaluation, then, that additional firm gas
3 transportation on the FGT East Leg was required in the future if DEF acquired the NRG
4 plant to ensure the plant would be available at all times, including peak time periods, to
5 meet DEF's future system load. The FGT East Leg firm transportation costs are a
6 reasonable planning cost for the NRG plant acquisition.

7
8 **Q. Mr. Dauer suggests that in the event DEF were not able to obtain sufficient gas to**
9 **operate the plant in a reliable and economic manner by supplementing NRG's**
10 **contract with non-firm gas, DEF could run the plant as needed on fuel oil. Could**
11 **DEF cost-effectively and reliably run the Osceola plant in this manner?**

12 A. No. While DEF views fuel oil as an important reliability tool in the operation of peaking
13 units and some combined cycle units, DEF also recognizes that fuel oil operation reduces
14 unit efficiency, increases emissions, and exposes customers to greater cost uncertainty.
15 For example, when utilities experience high load periods, it is not uncommon for both gas
16 and fuel oil delivery systems to experience challenges to support the needs of the
17 generating plants. If gas supplies to the designated gas fired resources are not firm and
18 those units expect to switch to fuel oil, that places more pressure on the fuel oil delivery
19 infrastructure at a time when fuel oil suppliers are likely already challenged to meet their
20 customers' volume and inventory needs. One additional advantage of the newer gas fired
21 units being added to the DEF fleet is the increase in the average fleet fuel efficiency and
22 decrease in fuel costs. Risking regular periods of fuel oil operation can substantially
23 decrease the value of this strategy. In planning for costs effective utility operations, DEF

1 is reducing these risks and positioning these units to operate reliably and cost effectively.
2 Creating a situation with a significant risk of high cost fuel oil operation, potentially for
3 extended periods of time is contrary to this approach.
4

5 **Q. Did DEF reasonably include firm gas transportation costs for the NRG Osceola**
6 **plant in its evaluation of the NRG Osceola plant acquisition?**

7 A. Yes it did. DEF included firm natural gas transportation requirements and costs in its
8 evaluation of NRG's plant acquisition proposal to ensure that the NRG plant capacity
9 would be available to DEF's system for customers whenever it was needed, especially
10 during peak times, but in all times that the Company economically dispatched the NRG
11 plant to meet customer load.
12

13 **Q. Does Calpine's witness Mr. Hibbard also criticize DEF's firm gas transportation**
14 **cost assumptions in DEF's evaluation of the Calpine proposals?**

15 A. Yes. Mr. Hibbard understands that DEF maintains long-term firm gas transportation
16 agreements to support DEF's system of generation plants and that DEF has sufficient
17 firm gas transportation arrangements for its proposed Suwannee Simple Cycle Project.
18 (Hibbard Direct Test., p. 31, lines 5-9). He does not dispute DEF's practice of providing
19 for firm gas transportation for DEF's system of generation resources under long-term
20 firm gas transportation agreements. Mr. Hibbard asserts that DEF has not leveled the
21 "playing field" by "crediting" or, in other words, simply giving these firm gas
22 transportation rights and crediting the associated costs to Calpine (or any other proposal
23 for that matter) in DEF's evaluation. (Hibbard Direct Test., p. 31, lines 9-23). He claims

1 it is not an “apples-to-apples” comparison and that it is an unfair evaluation unless DEF
2 simply gives these firm gas transportation rights at the same cost to DEF to Calpine.
3 (Id.).
4

5 **Q. Do you agree with Mr. Hibbard’s criticism of DEF’s evaluation of the Calpine**
6 **proposals?**

7 A. No. Mr. Hibbard’s criticism ignores the transportation benefits that DEF obtains for its
8 customers under DEF’s practice of strategically entering into long-term firm gas
9 transportation contracts with multiple primary delivery points in its existing and planned
10 generation resources over time. By purchasing firm gas transportation in this manner,
11 DEF utilizes its portfolio of transportation contracts to obtain operational flexibility, cost-
12 savings, efficiencies, and other contractual benefits for DEF’s customers to ensure a
13 reliable, diverse and competitively priced fuel supply.

14 DEF simply would not obtain some or all of these benefits if DEF viewed every
15 existing and proposed generation resource on its system in isolation and negotiated firm
16 gas transportation contracts on a unit-by-unit, month-by-month, day-by-day, or any other
17 limited basis that does not take advantage of Duke Energy’s existing system. Taking
18 “portions” of the benefits for DEF’s customers obtained from negotiating long-term firm
19 gas transportation over time and optimizing the transportation for use at its generation
20 facilities and simply giving them to Calpine in the evaluation of Calpine’s proposal, as
21 Mr. Hibbard suggests, in effect isolates firm-wide operational benefits for the benefit of
22 the Calpine plant that simply do not exist and would never exist because they were not
23 achieved because of the Calpine plant or any other individual plant on DEF’s system. In

1 other words, the system value of DEF's long-term firm gas transportation is greater than
2 the sum of the individual parts that make up the long-term firm gas transportation for the
3 system. Mr. Hibbard's proposed "allocation" of "part" of the system-wide firm
4 transportation benefits to Calpine, then, is not an "apples-to-apples" comparison and it is
5 not "unfair" to Calpine that DEF did not make this "allocation" in its evaluation of the
6 Calpine proposal.

7
8 **Q. What would happen to the firm gas transportation for the Suwannee Simple Cycle**
9 **Project if that Project was not built?**

10 A. Because DEF has obtained system-wide transportation benefits with the inclusion of the
11 proposed Suwannee Simple Cycle Project in its firm gas transportation rights for the
12 system DEF would not give up those rights if the Suwannee Simple Cycle Project was
13 not selected as the most cost effective generation alternative to meet DEF's need in the
14 summer of 2016. These benefits include the fact that the vast majority of the existing
15 firm gas transportation with primary delivery to the Suwannee Plant has multiple primary
16 delivery points to other DEF generating resources which allows DEF to optimize these
17 contracts to deliver gas on a primary firm basis to multiple resources as needed. DEF
18 would preserve these benefits for DEF's customers because the ability to optimize its
19 existing gas transportation contracts given variable factors such as load requirements and
20 unit outages combined with the expectation that DEF's gas transportation requirements
21 on DEF's system are expected to increase in the future even if the Suwannee Simple
22 Cycle Project was not built is prudent strategic planning for a reliable, diverse and
23 competitively priced fuel supply for DEF's customers. If DEF gave up these firm

1 transmission rights, which is the underlying assumption proposed by Mr. Hibbard's
2 proposed "allocation," then when DEF needs firm gas transportation to optimize its
3 system or needs firm gas transportation in the future, DEF will simply incur greater costs
4 and risk to obtain that firm gas transportation.

5
6 **Q. Are there other reasons Mr. Hibbard is wrong in suggesting that DEF can simply**
7 **"allocate" its existing firm gas transportation to Calpine for Calpine's proposals?**

8 A. Yes. The physical limitations on DEF's ability to transfer rights under DEF's existing
9 long-term firm gas transportation contracts with primary delivery points to DEF's
10 generating resources to plants at various locations that may be added to DEF's system
11 invalidate Mr. Hibbard's assertion that "DEF should be able to accommodate 320 MW of
12 generation from *any* proposal in this docket under its existing gas transportation
13 contracts." (Hibbard Direct Test., p.31, lines 22-23, p. 32 line 1). DEF's existing gas
14 transportation rights depend on the specific gas pipeline, the contractual primary delivery
15 points that are dependent on the specific location of the generation resources on DEF's
16 system and the primary receipt point locations of the gas supply. To transfer the benefits
17 of DEF's existing firm gas transportation contracts to "any proposal" in DEF's
18 evaluation ignores the basic physical limitations of the ability for DEF to utilize those
19 contracts to actually deliver gas to the proposed generating unit.

1 **Q. Were DEF's assumptions reasonable regarding firm gas transportation costs in its**
2 **evaluation of the Calpine proposals?**

3 A. Yes. DEF included firm natural gas transportation requirements and costs in its
4 evaluation of the Calpine proposals to ensure that the Calpine plant capacity would be
5 available to DEF's system for customers whenever it was needed and the Company
6 economically dispatched the Calpine plant to meet customer load. Additionally, given
7 the system-wide transportation benefits with the inclusion of the proposed Suwannee
8 Simple Cycle Project in its existing firm gas transportation rights for the system, DEF
9 would not give up those rights if the Suwannee Simple Cycle Project was not selected,
10 and, therefore, the fact that DEF did not "allocate" this transportation to Calpine's
11 proposal is fair and reasonable.

12
13 **Q. Does this conclude your rebuttal testimony?**

14 A. Yes.