

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

In re: Petition for Determination )  
of Need for Citrus County Combined ) DOCKET NO. 140110-EI  
Cycle Power Plant ) Submitted for filing: September 10, 2014  
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**DUKE ENERGY FLORIDA, INC.'S POST-HEARING STATEMENT OF ISSUES,  
POSITIONS, AND INCORPORATED ARGUMENTS**

Pursuant to Section 366.04 and 403.519, Florida Statutes, and Rules 25-22.080, 25-22.081, 25-22.082 and 28-106.201, Florida Administrative Code (“F.A.C.”), Duke Energy Florida, Inc. (“DEF” or the “Company”), petitioned the Florida Public Service Commission (“FPSC” or the “Commission”), to determine the need for the Citrus County Combined Cycle Power Plant. The Commission held a hearing to consider DEF’s Petition on August 26-27, 2014. The record in this case conclusively demonstrates that the requirements of Section 403.519 and Rules 25-22.080, 25-22.081, 25-22.082 and 28-106.201, F.A.C. have been met, and the Commission should therefore grant DEF’s Petition. Pursuant to Order No. PSC-14-0440-PHO-EI, issued August 22, 2014, DEF submits its Post-Hearing Statement of Issues, Positions, and Incorporated Arguments in support of its position that the Commission should grant DEF’s Petition.

**I. THE RECORD EVIDENCE CONCLUSIVELY SUPPORTS DEF’S PETITION FOR DETERMINATION OF NEED FOR THE CITRUS COUNTY COMBINED CYCLE POWER PLANT.**

DEF selected the Citrus County Combined Cycle Power Plant as its next planned generating unit (“NPGU”) to meet its need commencing in the summer of 2018 after conducting an internal, rigorous integrated resource planning (“IRP”) process and a competitive market evaluation pursuant to a request for proposals (“2018 RFP”) pursuant to Commission Rule 25-22.082, F.A.C. (the “Bid Rule”). (T. 232-39, 395-96, 401-74; Exhibits 48-61). The record evidence --- including the undisputed testimony of DEF’s independent monitor and evaluator

Alan Taylor --- demonstrates that (i) DEF's 2018 RFP process was fair and impartial; (ii) DEF's 2018 RFP documents were fair and consistent with the Bid Rule; (iii) DEF's 2018 RFP bid evaluation process was fair and impartial; and (iv) DEF's selection of the Citrus County Combined Cycle Power Plant as the most cost effective generation resource to meet DEF's need as a result of that 2018 RFP bid evaluation process was reasonable. (T. 268-85, 288, 429-76; Exhibits 35, 48, 56-61). No witness in this proceeding challenged DEF's IRP process. No witness and no party in this proceeding challenged DEF's 2018 RFP and 2018 RFP evaluation process or claimed that DEF did not conduct a fair and impartial 2018 RFP process and 2018 RFP bid evaluation process that was consistent with the Commission Bid Rule.<sup>1</sup> Based on the record evidence, DEF's Citrus County Combined Cycle Power Plant is the most cost effective generation alternative to meet the needs of DEF and its customers.

No witness and no party challenged DEF's evidence that the Citrus County Combined Cycle Power Plant provided DEF's customers adequate electricity at a reasonable cost and provided DEF and its customers fuel supply reliability and diversity. The record evidence demonstrated that the Citrus County Combined Cycle Power Plant can be built at a reasonable cost that includes substantial shared site infrastructure and existing transmission infrastructure for the benefit of DEF's customers. (T. 111-14, 227-28, 230, 236-37, 402-3, 469-72; Exhibits 2, 3). When the Plant achieves commercial operation customers will receive the further benefit of substantial fuel savings from the highly efficient, state-of-the-art combined cycle power plant. (T. 113-14, 420-23, 469-72). This evidence was undisputed.

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<sup>1</sup> The intervenor parties include the Office of Public Counsel ("OPC"), Florida Industrial Power Users Group ("FIPUG"); White Springs Agricultural Chemicals, Inc. d/b/a PCS Phosphate ("PCS Phosphate"), Calpine Construction Finance Company, L.P. ("Calpine"); NRG Florida, L.P. ("NRG"), EFS Shady Hills LLC ("Shady Hills"); and Southern Alliance for Clean Energy ("SACE"). The intervenor witnesses in this Docket include Calpine witness Paul Hibbard and NRG witness Jeffry Pollock.

Likewise, the undisputed record evidence demonstrates that the Plant will be supplied with natural gas from the new Sabal Trail Greenfield natural gas pipeline into the State of Florida that provides DEF and the State access to abundant onshore conventional and unconventional natural gas supplies, including natural gas shale resources, thus, ensuring fuel diversity through readily available fuel at a cost-effective price. (T. 114-15, 167-75, 189-90, 198-202, 424-28; Exhibits 18-20, 23-24). Interconnections with other natural gas pipelines undisputedly allow DEF to access gas in the event of supply disruptions on the Sabal Trail pipeline, thus, ensuring fuel supply diversity through a reliable fuel supply for the Plant. (T. 172-74, 426-28; Exhibits 18-19). No witness or party disputed the record evidence of the Plant's contribution to DEF's need for fuel diversity and fuel supply reliability.

In sum, the Citrus County Combined Cycle Power Plant is the most cost-effective generation resource option to meet DEF's need; it provides customers needed electricity at a reasonable cost with substantial site, transmission, and fuel savings benefits, and it improves the system fuel supply diversity and reliability. This much is undisputed in the record.

The only dispute, as DEF made clear in its opening statement (T.12), is whether DEF could or should delay the Citrus County Combined Cycle Power Plant past 2018. In other words the parties do not dispute the need for the Citrus County Combined Cycle Power Plant; they only dispute the need for the Plant in 2018. As demonstrated below, the record evidence conclusively shows that the Citrus County Combined Cycle Power Plant is needed in 2018, taking into account DEF's need for electric system reliability and integrity.

The evidence shows that the Plant enables DEF to meet its 20 percent Reserve Margin commitment by 2018, regardless of the generation resources that precede the Plant to meet DEF's need for additional generation prior to 2018. (T. 408-9, 413-14, 511-12, 687-88, 692;

Exhibit 50). No error in DEF's load forecast was identified in the record and that load forecast together with the undisputed generation facility retirements establish that without the Citrus County Combined Cycle Power Plant in 2018, DEF's Reserve Margin falls well below the 20 percent commitment. (T. 407-13, 496-98; Exhibits 48-50). As a result, DEF needs additional generation commencing in 2018 to serve its load and the undisputed most cost effective generation to meet that need is the Citrus County Combined Cycle Power Plant.

For all these reasons, as demonstrated in more detail below, DEF respectively requests that the Commission find that the requirements of Section 403.519, Florida Statutes, have been met and enter an Order granting DEF's Petition.

## **II. DEF'S ISSUES, POSITIONS, AND INCORPORATED ARGUMENTS:**

**Issue 1: Is the proposed Citrus County Combined Cycle Power Plant needed, taking into account the need for electric system reliability and integrity?**

### **DEF Position:**

**\*Yes. DEF needs additional generation in 2018 to meet its 20 percent minimum Reserve Margin commitment. By summer 2018, the Citrus County Combined Cycle Power Plant is needed to meet peak demand of 9,439 MW and, by summer 2019, the Plant is needed to meet peak demand of 9,813 MW, a 1.4 percent annual growth rate, which results from increasing customer growth and improving economic conditions. Generation retirements contribute to DEF's need. The Plant increases DEF's summer peak Reserve Margin to 20.4 percent in 2018 and 23.6 percent in 2019. Without the Plant, the summer Reserve Margin is 11.7 percent in 2018. The Plant allows DEF to satisfy its minimum 20 percent Reserve Margin commitment by and beyond 2018.\***

**DEF Conclusively Demonstrated by the Record Evidence that the Citrus County Combined Cycle Power Plant is needed for electric system reliability and integrity commencing in 2018**

DEF demonstrated by the record evidence that DEF needs additional generating capacity by the summer of 2018 to maintain system reliability and integrity to reliably serve customers and to meet DEF's commitment to maintain a 20 percent Reserve Margin. (T. 396, 405-09, 420-22, 494; Exhibit 50). This Reserve Margin threshold was established for the investor-owned

utilities in peninsular Florida in Order No. PSC-99-2507-S-EU. (T. 406-07). Without the addition of the Citrus County Combined Cycle Power Plant in 2018, DEF's summer Reserve Margin falls to 11.7 percent in 2018 and to just 6.9 percent in 2019. With the addition of the Citrus County Combined Cycle Power Plant in 2018, DEF's summer Reserve Margin is only 20.4 percent in 2018, 23.6 percent in 2019, and 21.1 percent in 2020. (T. 408-09; Exhibit 48 - Need Study, p. 32, Exhibit 50). The record evidence demonstrates the need for the Citrus County Combined Cycle Power Plant commencing in 2018 to maintain DEF's 20 percent summer Reserve Margin commitment.

There are two drivers for DEF's need for additional generation capacity commencing in 2018. The primary driver is DEF's recent and planned generation facility retirements. (Exhibit 48 - Need Study, p. 32; T. 400, 409-10). DEF retired its Crystal River Unit 3 ("CR3") nuclear generation facility in February 2013. This generation facility retirement results in a 790 MegaWatt ("MW") reduction in available summer generation capacity and energy on DEF's system. (T. 409; Exhibit 48 - Need Study, p. 32). DEF plans to retire its oldest coal-fired steam generation facilities, Crystal River Unit 1 ("CR1") and Crystal River Unit 2 ("CR2"), in 2018 due to environmental restrictions on the continued operation of CR1 and CR2 beyond 2018. (T. 409-412). These generation facility retirements result in a reduction of 740 MW of summer generation capacity and energy on DEF's system. (T. 409-12; Exhibit 48 - Need Study, p. 32). DEF plans to retire an additional 133 MW of summer generation capacity as a result of the retirement of DEF's 1950's vintage oil- and gas-fired, steam generation plants at the Suwannee power plant site and its oldest combustion turbine peaking units by 2018. (T. 412-413; T. 748). The retirement of over 1,650 MW of summer generation capacity on DEF's system is therefore the primary driver for DEF's need for the additional generation capacity of the Citrus County

Combined Cycle Power Plant commencing in 2018.<sup>2</sup>

The second driver for DEF's need for additional generation capacity commencing in 2018 is summer load growth on DEF's system. DEF's load forecast is described in its most recent, 2014 Ten Year Site Plan ("TYSP"), in its Need Study, and in the direct testimony and exhibits of Mr. Borsch, DEF's Director of Resource Planning. (T. 407; Exhibit 48 - Need Study, pp. 36-44; Exhibit 49 - TYSP). Based on economic conditions that now support customer and energy demand growth, DEF projects its annual customer growth and its annual net firm demand growth will average 1.4 percent over the ten year forecast period. (Id.). Together with the existing and planned generation facility retirements, the additional peak demand on DEF's system translates into a need for additional generation capacity of 840 MW in 2018, 1,338 MW in 2019, and 1,590 MW in 2020 to maintain the Company's 20 percent Reserve Margin commitment. (Exhibit 48 - Need Study, p. 32). This need for additional generation capacity on DEF's system commencing in 2018 is met by the addition of the Citrus County Combined Cycle Power Plant. (T. 404, 413).

The record evidence conclusively supports DEF's existing and planned generation facility retirements and load forecast that drive DEF's need for the Citrus Country Combined Cycle Power Plant commencing in the summer of 2018. This evidence is, in fact, unchallenged by any contrary evidence. No witness or party introduced any evidence that contradicts any reason for any of DEF's generation facility retirement decisions. Further, no witness or party

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<sup>2</sup> Even NRG witness Mr. Pollock agreed DEF's planned generation facility retirements were a primary driver in DEF's need for additional generation capacity in 2018 when he pointed out that the combination of planned generation facility retirements and additions to DEF's system between 2013 and 2019 produced less than 200 MW of additional generation capacity on DEF's system. (T. 877). As Mr. Borsch explained, this concession demonstrates that there is little margin for error in DEF's load forecast because DEF is in fact largely replacing existing generation capacity that has retired or that will retire in its resource plan in addition to meeting load growth. (T. 506).

introduced in evidence an alternative load forecast or introduced any evidence of any error in DEF's load forecasting methods and procedures or DEF's load forecast assumptions explained in DEF's Need Study and 2014 TYSP that form the basis for DEF's load forecast. (T. 407; Exhibit 48 - Need Study, pp. 36-44; Exhibit 49 - TYSP). The record evidence, then, conclusively supports DEF's need for the Citrus County Combined Cycle Power Plant.

Intervenor parties or witnesses did challenge DEF's need for the Citrus County Combined Cycle Power Plant in 2018 for other reasons, but none of their arguments to delay or defer the Citrus County Combined Cycle Power Plant beyond 2018 contradict the actual record evidence that conclusively established the need for that Plant commencing in 2018. As demonstrated by that evidence, these arguments are without merit.

Some intervenor parties argued that the Commission should defer or delay the need for the Citrus County Combined Cycle Power Plant beyond 2018 because the Company's pending deal in principle to acquire the Calpine Osprey Plant --- rather than build the Suwannee Simple Cycle Project --- to meet DEF's need for generation capacity prior to 2018 somehow in some still unspecified way impacts the need for the Citrus County Combined Cycle Power Plant in 2018. (T. 73-74, 76-77, 78, 81).<sup>3</sup> The record evidence at the hearing refutes this argument and

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<sup>3</sup> In the companion Docket No. 140111-EI, involving DEF's Petition for determination of cost effective generation alternative to meet need prior to 2018, the Commission granted DEF's motion at the hearing to sever and withdraw the separate determination of need for and cost effectiveness of the Suwannee Simple Cycle Project in that Docket, and continue with the determination of the need for the Hines Chillers Power Uprate Project in Docket No. 140111-EI, and the Petition for the determination of need for the Citrus County Combined Cycle Power Plant in Docket No. 140110-EI. (T.21-22, 28, 63-65). The reason for this motion was the deal in principle for DEF's acquisition of the Calpine Osprey plant, which potentially is a more cost effective generation alternative than the Suwannee Simple Cycle Project for DEF's customers. (T.22-23, 756). DEF's motion was premised on the understanding that DEF would present the Commission with either the Calpine Osprey plant acquisition alternative, if the deal in principle is consummated, or the Suwannee Simple Cycle Project at a later time for a determination by the Commission of the most cost effective alternative to meet part of DEF's need prior to 2018. (Id.; T. 35). All parties would have the opportunity at that time to present any testimony or other

unequivocally establishes that the potential Calpine Osprey plant acquisition to meet DEF's need for generation capacity commencing in 2016 has no impact on the need for the Citrus County

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evidence to the Commission as part of that determination by the Commission. (T. 35).

Some parties, however, asserted that their due process rights were impaired because they claimed the deal in principle for the acquisition of the Calpine Osprey plant was "new" and they did not know how the potential Calpine Osprey plant acquisition to meet DEF's need prior to 2018 impacted the need for the Citrus County Combined Cycle Plant in 2018. (see, e.g., T. 39, 41-43, 73-74, 78). They argued --- without any evidentiary support whatsoever --- that the separate generation capacity need commencing in 2016 that was potentially addressed by the Calpine Osprey plant acquisition was "intertwined" with or a "package" with the generation capacity need commencing in 2018 that was met by the Citrus County Combined Cycle Power Plant, and that they could not understand the impact on that later need because they did not know about the deal in principle to purchase the Calpine Osprey Plant --- despite the fact that this potential "deal" and its structure was contained in the intervenor testimony and evaluated in DEF's rebuttal testimony in the record evidence. (see, e.g., T. 24-26, 27, 49 and contrary arguments at T. 29, 32-33, 44-5, 46-8, 51). As a result, all parties were provided due process because they had notice of the potential Calpine Osprey plant acquisition and its structure and they had the opportunity to address its impact on the need for the Citrus County Combined Cycle Power Plant based on the record evidence. Hadley v. Department of Administration, 411 So. 2d 184, 187 (Fla. 1982) (due process generally requires that parties be provided notice and an opportunity to be heard on an issue, but due process in administrative proceedings "is flexible and calls for such procedural protections as the particular situation demands."); Jennings v. Dade County, 589 So. 2d 1337, 1340 (Fla. 3<sup>rd</sup> DCA 1991) (due process is satisfied if the parties are provided notice of the hearing and an opportunity to be heard).

The Commission, nevertheless, provided the parties additional time to address these arguments with DEF's witnesses, albeit not the length of time they originally requested (T. 39, 41, 42, 54-55, 57-8), and the testimony and other record evidence demonstrated the deal in principle between DEF and Calpine was not "new," but instead was in line with the structure of the Calpine plant acquisition proposals DEF had already evaluated. The evidence further demonstrated that this potential acquisition was not intertwined with or a package with and did not impact the need for the Citrus County Combined Cycle Power Plant. (T. 686-93, 696-99, 845-46, 852-53; Exhibits 50, 128, p. 36 of 51 & Exhibits 132-33). Also, at no point during the development of this evidence or at the conclusion of the evidentiary hearing did any party renew their due process argument or seek additional time including extending the hearing to the remaining available hearing date on September 3, 2014. As a result, there is no due process issue and the parties waived any due process argument they might have had and they are bound by the evidence developed at the hearing. Hadley, 411 So.2d at 187; Jennings, 589 So. 2d at 1340; see also Empire World Towers, LLC v. CDR Creances, S.A.S., 89 So. 3d 1034, 1043-44 (Fla. 3d DCA 2012), reh'g denied (July 3, 2012), review denied, 109 So. 3d 780 (Fla. 2013) and cert. denied, 133 S. Ct. 2757, 186 L. Ed. 2d 194 (U.S. 2013) (finding defendants waived due process argument when they declined judge's offer for additional time to put evidence on regarding newly filed documents).



Combined Cycle Power Plant commencing in 2018.

Mr. Borsch described the structure of the Calpine Osprey plant acquisition deal in principle as a two-year power purchase agreement (“PPA”) followed by the acquisition of the Calpine Osprey plant in 2016. (T. 687-688, 690). This acquisition depends on Federal Energy Regulatory Commission (“FERC”) approval and fulfillment of performance conditions precedent to consummation of the acquisition. (T. 689, 826). The structure of this deal in principle with Calpine is the same structure of the Calpine proposals the Company evaluated in the exhibits to Mr. Borsch’s rebuttal testimony that were introduced in evidence. (T. 695-696; Exhibits 128, p. 36 of 51 & Exhibits 132-33). This evaluation included the cumulative present value revenue requirement (“CPVRR”) impact of substituting the Calpine Osprey plant for the Suwannee Simple Cycle Project in the resource plan with the Citrus County Combined Cycle Power Plant. (Exhibits 128 & 133). This CPVRR impact necessarily includes the more cost effective Calpine Osprey plant acquisition deal in principle. The structure of the present deal in principle with Calpine, then, is unchanged from the structure evaluated by the Company in the CPVRR evaluations of the resource plan which included both the Calpine Osprey plant and the Citrus County Combined Cycle Power Plant.

The record evidence conclusively demonstrates that the Calpine Osprey plant acquisition deal in principle does not have any impact on the need for the Citrus County Combined Cycle Power Plant. Mr. Borsch testified that the Citrus County Combined Cycle Power Plant is needed to meet DEF’s need commencing in 2018 regardless of the selection of generation capacity to meet DEF’s need prior to 2018. (T. 511). He further explained the Calpine Osprey plant acquisition has no impact on the need for the Citrus County Combined Cycle Power Plant because DEF only has firm transmission rights to 249 MW of the Calpine Osprey plant output

prior to the addition of the Citrus County Combined Cycle Power Plant in 2018. (T. 601-02, 687-88, 852-53). This additional firm generation capacity on DEF's system prior to 2018 cannot defer or delay the need for the Citrus County Combined Cycle Power Plant commencing in 2018.

Mr. Borsch explained that DEF cannot obtain the full Calpine Osprey plant generation capacity until DEF constructs necessary transmission infrastructure to directly connect the Calpine Osprey plant to DEF's system. (T. 601-02, 688). Mr. Borsch further explained that DEF would not build this transmission infrastructure until DEF actually owned the Calpine Osprey plant. (T. 689-90). Mr. Scott explained that the nature and cost of the transmission infrastructure required to connect the Calpine Osprey plant to DEF's system and he testified that this work and cost for the work remained unchanged under the Calpine Osprey acquisition deal in principle. (T. 249-50, 253-254; Exhibit 34). The time required to construct this transmission infrastructure and connect the Calpine Osprey plant to DEF's system is three to four years. (T. 249, 257). As a result, the earliest DEF could obtain the full output of the Calpine Osprey plant -- assuming final agreement on the deal in principle, FERC approval of the plant acquisition, consummation of the acquisition, and the minimum time required to construct the necessary transmission infrastructure to connect the Calpine Osprey plant to DEF's system --- is the beginning of 2020, two years after the Citrus County Combined Cycle Power Plant is added to DEF's system to meet DEF's 20 percent Reserve Margin commitment. (T. 691-92).<sup>4</sup>

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<sup>4</sup> Both OPC and FIPUG proffered hypothetical arguments that the full output of the Calpine Osprey plant can be obtained by DEF prior to 2018 that are flatly contradicted by the evidence and bear no relation to reality. OPC proffered an exhibit with the hypothetical addition of the full output of the Calpine Osprey Plant on DEF's system in 2016, when at most the plant acquisition might be consummated, but the Osprey plant would not be actually connected to DEF's system. (Exhibit 138; T. 689-90, 705). Mr. Borsch flatly rejected this hypothetical as inconsistent with the actual facts. (T. 705).

OPC, nevertheless, argued that DEF had not, but would have to, run a production cost model for this "scenario" to determine its benefits, which DEF admitted it had not done because the

Prior to 2020, DEF's additional firm generation capacity on its system if the Calpine Osprey plant acquisition is consummated is 249 MW commencing in 2015. (T. 601-02, 688). This additional firm generation capacity, together with the Hines Chillers Uprate Project, is sufficient to meet DEF's 20 percent Reserve Margin commitment prior to 2018. (T. 752-53; Exhibit 121). The additional firm generation capacity from the Calpine Osprey plant prior to 2018 is insufficient to defer or delay the need for the Citrus County Combined Cycle Power Plant in 2018. This additional firm generation capacity is less than the expected 320 MW firm generation capacity of the Suwannee Simple Cycle Project commencing in 2016, and, therefore, the Calpine Osprey plant firm generation capacity prior to 2018 would only reduce -- not

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“scenario” was inconsistent with the fact that the assumed transmission connection of the Osprey plant to DEF's system did not exist. (T. 707). Continuing to be unimpeded by any actual facts, OPC then claimed this hypothetical addition of the full Calpine Osprey plant capacity on DEF's system in 2016 represented a “benefit” to customers that was not reflected in DEF's analysis of the \$90 million CPVRR cost to customers to defer the Citrus Combined Cycle Power Plant one year. (T. 707-708). OPC ignores the undisputed evidence that it is imprudent for DEF to incur the transmission costs to connect the Calpine Osprey plant to DEF's system prior to actually acquiring and owning that plant (T. 689-90, 823-24), and OPC ignores the \$150 million in transmission infrastructure costs required to obtain these alleged “benefits” in his hypothetical. (T. 708). It remains to point out too that OPC's hypothetical addition of the full Calpine Osprey plant generation capacity to DEF's system in 2016 bears no relation to reality because it means the transmission infrastructure necessary to connect the Osprey plant to DEF's system had to commence last year in order for the Osprey plant to be fully on-line on DEF's system in 2016, which obviously did not occur. (T. 853-54).

FIPUG likewise suggests that the Calpine Osprey plant can be connected to DEF's system at an earlier point, in 2017, in time to defer or delay the need for the Citrus County Combined Cycle Power Plant. This argument also flatly contradicts the record evidence that it is neither prudent nor DEF's intention to incur the transmission costs necessary to connect the Calpine Osprey plant to DEF's system before DEF acquires and actually owns the Osprey plant. (T. 601-02, 689-90, 823-24). FIPUG relies solely on Mr. Scott's answer to FIPUG's direct question if DEF started today --- that is August 26, 2014 --- that the “absolute earliest” DEF could complete the construction work necessary to connect the Calpine Osprey plant to DEF's system would be August 2017. (T. 257-58). Of course, FIPUG never asked Mr. Scott if that is what DEF would in fact do or even if it was prudent for DEF to commence a \$150 million transmission infrastructure project to connect a plant to its system that it did not yet own. Mr. Borsch explained that, of course, DEF would not do that and it would be imprudent to do so. (T. 689-90, 823-24).

increase-- the Reserve Margin between 2016 and 2020. (T. 852-53; Exhibit 50).<sup>5</sup> The record evidence conclusively demonstrates that the Citrus County Combined Cycle Power Plant is still needed in 2018 to meet DEF's 20 percent Reserve Margin commitment, even if the Calpine Osprey plant acquisition deal in principle is consummated.

Intervenor parties also challenged the need for the Citrus County Combined Cycle Power Plant in 2018 by attacking DEF's load forecast based not on any identified error in DEF's load forecast methodology, procedures, or forecast assumptions, but instead based on the improper and unreasonable comparison of recent, actual peak demand and energy consumption to DEF's projected peak demand and energy consumption in DEF's uncontroverted load forecast.<sup>6</sup> Simply put, historical results are no indication of future results, and, therefore, a reasonable and prudent

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<sup>5</sup> PCS Phosphate likely will contend that DEF does not have record evidence of the impact of the substitution of the Calpine Osprey plant for the Suwannee Simple Cycle Project on DEF's Reserve Margin for the Citrus County Combined Cycle Power Plant because DEF admittedly included the Suwannee Simple Cycle Project with the Citrus County Combined Cycle Power Plant in the resource plan that generated the Reserve Margin for the Plant that is in evidence. (T. 716; Exhibit 50). The determination of this impact, however, requires no complex analysis or mathematical calculation. As Mr. Borsch demonstrated, logic and simple math show that replacing a 320 MW plant with essentially a 249 MW plant in the resource plan prior to the Citrus County Combined Cycle Power Plant does not increase the Reserve Margin and therefore has no impact on the need for the Citrus County Combined Cycle Power Plant commencing in 2018. (T. 852-53; Exhibit 50).

<sup>6</sup> OPC spent a considerable amount of time with Mr. Borsch establishing that DEF only incorporates in its load forecast wholesale capacity and energy that is actually under contract with wholesale customers like Seminole Electric Cooperative ("SEC"). (T. 665-86). It is difficult to understand what OPC's point with this inquiry was since OPC failed to identify any error in DEF's forecast of wholesale load or any incorrect application of the various SEC wholesale contracts with DEF in DEF's load forecast. (Id.). As Mr. Borsch explained, the fact that SEC may not actually purchase all the firm generation capacity or energy that it contracted for does not mean that DEF does not have to stand ready to provide that contracted firm generation capacity and energy to SEC. DEF is contractually obligated to provide the contracted firm capacity and energy to SEC regardless whether SEC actually purchases all of it. (T. 680). DEF also is not building the Citrus County Combined Cycle Power Plant to meet wholesale load. DEF is building the Citrus County Combined Cycle Power Plant to replace generation facilities that are retired and that will be retired and to meet all its load, retail and wholesale, requirements. (T. 405-13, 420-22, 504-06, 851-52).

load forecast methodology does not rely on historical results of peak demand and energy usage to project future peak demand and energy usage. (T. 407, 847-48, 851-52; Exhibits 48, 49).

To illustrate, PCS Phosphate introduced two exhibits that PCS Phosphates purports to use to challenge the reasonableness and supporting evidence for DEF's estimated growth in peak summer demand. (T. 726; Exhibit 139, 140). These exhibits, however, are not based on any evidence of the underlying assumptions for the Company's projected peak firm summer demand. Rather, they compare actual, pre-recession, recession, and post-recession growth rates --- in one exhibit the period 2004 to 2013 and in the other exhibit the period 2010 to 2013 --- to DEF's projected load in 2014 or over the ten-year period 2014 to 2023, respectively. (Exhibits 139, 140). What PCS Phosphates did in these exhibits and what the other intervenor parties and witnesses who challenged DEF's load forecast argued --- that actual load is indicative of future load ---- is not a reasonable, prudent load forecast methodology. (T. 847-48, 851-52).

The mathematical calculations of the variances of the actual load to the projected load by PCS Phosphate in its exhibits --- which is all Mr. Borsch agreed with in these exhibits --- cannot demonstrate that DEF's load forecast is unreasonable or unsupported by evidence, unless the assumption is made that DEF's load in the future, projected period will be exactly the same as the actual load DEF previously experienced in these past time periods. (T. 848, 849-850). Mr. Borsch explained that assumption is unrealistic: PCS Phosphate is "looking at a past period" and "using that as the basis to make a future projection," and PCS Phosphate "suggested that the behavior of the relationship between load and demand that has occurred over the last five years is likely to be replicated in the foregoing ten years," which is unrealistic because "none of the projections that we have of economic behavior within our service territory going forward anticipate a repeat or a continuation necessarily of what's happened over the last five years." (T.

849-50).<sup>7</sup> These PCS Phosphate exhibits and the accompanying arguments that DEF's load forecast is unreasonable because it does not replicate exactly the historical peak demand and energy usage are unrealistic, illogical, and flatly inconsistent with DEF's reasonable, prudent load forecast methodology.

Reasonable load forecasting methodology accounts for projections of future conditions, not past conditions. DEF's load forecast methodology is based on a number of factors including number of projected customers, and future usage per customer, using assumptions about future economic conditions and customer growth, among others, in a set of econometric models and statistically adjusted procedures to develop projections of DEF's future load growth. These load forecasting methods, procedures, and assumptions are described in detail in the record evidence. (T. 407-09; Exhibit 48 - Need Study; Exhibit 49; T. 847-48, 850-51). No errors in DEF's load forecast methodology, procedure, or assumptions were identified by any party or witness. (T. 494-501, 656-657). In fact, Calpine witness Paul Hibbard reviewed DEF's forecast of load and energy growth and found nothing wrong with DEF's forecast. (T. 348). Mr. Hibbard also found nothing wrong with the timing of DEF's resource additions or retirements. (Id). The undisputed record evidence is that DEF's load forecast is reasonable and that it supports the need for the Citrus County Combined Cycle Power Plant commencing in 2018.

Finally, FIPUG argued that the Citrus County Combined Cycle Power Plant should be

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<sup>7</sup> SACE joined this argument by introducing an excerpt of the Commission's Review of the 2013 Ten-Year Site Plans for the Florida Electric Utilities and focusing on the recent, historical load forecasting error identified in that Exhibit with Mr. Borsch. (T. 778-794; Exhibit 144). What SACE failed to point out to Mr. Borsch or the Commission in this Exhibit is the reason for the recent load forecast error rate. The Commission expressed in the Commission's Review that the recent high error rate "seems to be associated with the unexpected impacts of the recession on retail energy sales in Florida, both from reduction in the state's growth rate, but also from decreased usage per capita." The Commission further noted that "as the five year rolling average progresses and includes more years post-recession, the error values should subside." (Exhibit 144). The Commission does not even expect that the unique, past recession experience will be duplicated in future "post-recession" years.

deferred beyond 2018 by extending the operation of CR1 and CR2 beyond the planned retirement of the CR1 and CR2 coal-fired, steam generation units in 2018. FIPUG relies solely on the calculation by Mr. Hibbard of the time value of money of deferring the capital costs for the Citrus County Combined Cycle Power Plant one (or more) years and the existing DEF air permit that currently provides for the cessation of operations at CR1 and CR2 at the end of 2020. (T. 363-64, 807-08).<sup>8</sup> FIPUG's arguments are meritless.

Mr. Hibbard's calculation of the time value of money of deferring the capital costs for the Citrus County Combined Cycle Power Plant one (or more) years does not address the cost to customers to defer that Plant and to continue to operate CR1 and CR2 one (or more) years. Mr. Hibbard admitted that there are emerging air, water, and solid waste federal requirements that affect the continued operation of CR1 and CR2 beyond 2018 and that he did not perform any analysis of the costs and benefits of extending the operation of CR1 and CR2 and deferring the Citrus County Combined Cycle Power Plant beyond 2018. (T. 371-72). DEF did calculate the costs and benefits to customers if DEF deferred the Citrus County Combined Cycle Power Plant beyond 2018 and continued to operate CR1 and CR2 another year. DEF's cost-benefit analysis shows that deferring the Citrus County Combined Cycle Power Plant and continuing to operate CR1 and CR2 beyond 2018 results in a CPVRR increase to customers of approximately \$90

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<sup>8</sup> FIPUG also questioned DEF's Mercury and Air Toxics Standard ("MATS") compliance plan for the continued operation of CR1 and CR2 from 2016 to 2018 that was presented to and approved by the Commission as part of DEF's Integrated Clean Air Compliance Plan in Order No. PSC-14-0173-PAA-EI (consummating Order No. PSC-14-0218-CO-EI). FIPUG erroneously suggested that this Plan provided for the operation of CR1 and CR2 beyond 2018 and that DEF had failed to disclose to the Commission that the Plan only contemplated the continued operation of CR1 and CR2 until the Citrus County Combined Cycle Power Plant achieved commercial operation in 2018. The Plan approved by the Commission was clearly based on the costs and benefits to customers of continuing to operate CR1 and CR2 to 2018 compared to shutting CR1 and CR2 down in 2016 and the Order makes clear that the Company's Plan included continued operation of CR1 and CR2 until CR1 and CR2 could be retired and replaced by the Citrus County Combined Cycle Power Plant in 2018. (T. 409-12, 790, 801-806, 843-845).

million. (T. 507-11, 657-58; Exhibit 126). The undisputed evidence demonstrates that customers are worse off if the Citrus County Combined Cycle Power Plant is deferred beyond 2018.

Additionally, the fact that the air permit currently provides for the continued operation of CR1 and CR2 through 2020 does not mean that CR1 and CR2 can or should be operated through 2020. Mr. Borsch explained existing environmental regulations, including the site averaging to comply with MATS and the one-hour sulfur dioxide National Ambient Air Quality Standard, increase the technical complexity and potentially cost of continuing to operate CR1 and CR2 beyond 2018. These regulations further challenge DEF's ability to continue to operate CR1 and CR2 beyond 2018 and to reliably operate its system even if DEF can continue to operate these units past 2018. (T. 508-11, 788-89, 808-09). For these reasons --- as well as the additional cost to customers to continue to operate CR1 and CR2 and defer the Citrus County Combined Cycle Power Plant beyond 2018 --- DEF decided to retire CR1 and CR2 in 2018. (T. 409-12, 508-11, 808-09). No evidence was introduced that demonstrated any error in DEF's reasons for retiring CR1 and CR2 in 2018. Mr. Hibbard in fact agrees that environmental regulations affect the continued operation of CR1 and CR2 beyond 2018 and he did not dispute the Company's decision to retire CR1 and CR2 in 2018. (T. 372). SACE further agreed with the Company's decision to retire CR1 and CR2. (T. 85).

In sum, the uncontroverted evidence demonstrates that the Citrus County Combined Cycle Power Plant is needed, taking into account the need for electric system reliability and integrity. DEF's need for additional generation capacity in the summer of 2018 is driven by DEF's existing and planned generation facility retirements and its projected load requirements. The evidence conclusively demonstrates that DEF needs the Citrus County Combined Cycle Power Plant in 2018 to meet its 20 percent Reserve Margin commitment to continue its



obligation to reliably serve its customers.

**Issue 2: Is the proposed Citrus County Combined Cycle Power Plant needed, taking into account the need for adequate electricity at a reasonable cost?**

**DEF Position:**

**\*Yes. The Citrus County Combined Cycle Power Plant is a highly efficient, state-of-the-art, natural-gas fired plant with relatively low production costs creating significant fuel savings benefits. Shared site infrastructure and existing transmission infrastructure add substantial benefits. The Plant cost is \$1,514 million (nominal). The Plant can be built at a reasonable cost for DEF's customers.**

**No third party bidder proposal came close to matching the Plant benefits. All bidder proposals fell short of DEF's need and, when combined with generic plants to meet that need, the closest bidder scenario was over \$470 million less cost effective. Based on DEF's internal, rigorous IRP process, and the 2018 RFP competitive market process, the Plant provides customers adequate electricity at a reasonable cost.\***

**The Undisputed Record Evidence Shows that the Citrus County Combined Cycle Power Plant will Provide Customers Adequate Electricity at a Reasonable Cost**

No intervenor party and no intervenor witness challenged DEF's evidence that the Citrus County Combined Cycle Power Plant will provide DEF's customers adequate electricity at a reasonable cost. DEF's evidence that the Plant, when built and placed in commercial operation, will produce electricity at a reasonable cost to customers is uncontroverted.

The Citrus County Combined Cycle Power Plant is a state-of-the-art, natural-gas fired plant. (T. 113-14, 400-01). The total cost of the Plant, including the Allowance for Funds Used During Construction ("AFUDC") and transmission interconnection costs, is \$1,514 million (nominal). (T. 120, 404). Over eighty percent of this cost is based on fixed or firm price bids. (T. 120). As Mr. Landseidel explained, the market for the major equipment and construction services for the Plant are favorable and, in fact, he has never seen a more favorable market since at least 1996 when he assumed responsibility for project development, project management, and construction. (T. 141, 109). In addition, there are substantial fuel savings benefits to customers

from the operation of the Citrus County Combined Cycle Power Plant. (T. 475). The Citrus County Combined Cycle Power Plant, therefore, will provide customers electrical generation at a reasonable cost.

There are other cost benefits for the Citrus County Combined Cycle Power Plant that contribute to the Plant's ability to generate electricity for customers at a reasonable cost. The Plant will be located adjacent to the Crystal River Energy Center ("CREC") where the Plant can use existing CREC infrastructure that necessarily save DEF and customers the cost of duplicating that infrastructure for the Plant. (T. 112). The location of the Plant allows the Plant to be connected to the existing 230kV and 500kV transmission substations. These substations are connected to the existing DEF transmission infrastructure that delivers power from the CREC to DEF's distribution system and its customers. (T. 112, 149, 227-28, 230, 236-37, 402-03). As a result, the only transmission costs for the Plant are the cost to connect the Plant to DEF's existing system. DEF avoids the costs to build separate site and transmission infrastructure for the Plant because of its location adjacent to the CREC. (Id.). These cost-savings accrue to the benefit of DEF's customers and further demonstrate that the Citrus County Combined Cycle Power Plant will provide customers adequate electricity at a reasonable cost.

Finally, DEF conducted a 2018 RFP consistent with the Commission Bid Rule and no third-party bidder came close to matching the benefits of the Citrus County Combined Cycle Power Plant for DEF's customers. To begin with, all potential bidders were informed in the 2018 RFP documents about the beneficial location of a plant in the vicinity of Citrus County to DEF and its customers. This explanation expressly referenced the existing transmission infrastructure in that area and the benefits of avoiding transmission network upgrades if a plant was located in this area. (T. 236-37, 463-64, Exhibit 48 (Section V of 2018 RFP)). None of the

bidders to the 2018 RFP proposed generation in the vicinity of Citrus County. (T. 464). All third party bidders also individually and collectively failed to meet DEF's reliability needs for generation capacity in 2018 and the closest bidder proposal including generic units to meet DEF's reliability needs in a resource plan was over \$470 million less cost effective for DEF's customers. (T. 430-431; Exhibit 61). As a result, the competitive market failed to produce a plant that provides customers with adequate electricity at a more reasonable cost than the Citrus County Combined Cycle Power Plant.

For all these reasons, and based on the uncontroverted record evidence, the Citrus County Combined Cycle Power Plant is needed, taking into account the need for adequate electricity at a reasonable cost.

**Issue 3: Is the proposed Citrus County Combined Cycle Power Plant needed, taking into account the need for fuel diversity and supply reliability?**

**DEF Position:**

**\*Yes. The Citrus County Combined Cycle Power Plant will be fueled by natural gas. Gas is an abundant, competitively-priced generation fuel because of increases in production from conventional and unconventional sources. Natural gas also is a cleaner burning fuel resulting in lower capital and operating costs to comply with environmental regulations.**

**Sabal Trail will supply the Plant and provide access to abundant conventional and unconventional gas supplies, ensuring fuel supply diversity by providing readily available fuel at a cost-effective price. Additional interconnects between Sabal Trail and FGT will allow DEF to deliver gas to the Plant in the event of Sabal Trail interruptions, achieving fuel supply diversity by ensuring a reliable fuel supply. DEF reasonably achieved fuel diversity benefits.\***

**The Record Evidence Demonstrates that the Citrus County Combined Cycle Power Plant is Needed to Provide DEF and its Customers with Fuel Diversity and Supply Reliability**

The Citrus County Combined Cycle Power Plant will be fueled by natural gas as the single fuel source for the Plant. (T. 114-15, 422). DEF introduced uncontroverted evidence that the Plant will satisfy fuel diversity and supply reliability by ensuring that fuel for the Plant is

readily available at a cost-effective price and that there will be a reliable supply of fuel to the Plant. (T. 170-75, 190-196, 197-202). The evidence conclusively demonstrates that the Citrus County Combined Cycle Power Plant is needed to provide DEF and its customers with fuel diversity and supply reliability.

Natural gas is a readily available fuel source for the Plant at a cost-effective price to customers. Based on current and projected levels of the long-term supply of natural gas, natural gas is and will be a competitively-priced fuel source for the Plant. (T. 171, 174-175, T. 197-202; Exhibits 20, 21-24). Increases in the available gas supply and production from conventional and, in particular, unconventional tight gas and shale rock formations in the United States due to improvements in drilling and well stimulation technologies is expected to continue to favorably impact fuel prices in the future. (T. 189, 199-202; Exhibits 19, 20, 23, 24). Natural gas is also an attractive fuel source because, compared to oil and coal, it is a cleaner burning fuel and, therefore, it does not have the same level of environmental costs and related impacts associated with plants using alternative fuels. (T. 429). This results in lower relative costs to construct and operate generating facilities capable of complying with current and ever increasing environmental regulations. (T. 429). For these reasons, natural gas is an economic fuel choice for electric generation for customers now and in the future.

Natural gas to the Plant will be supplied by the Sabal Trail Transmission LLC (“Sabal Trail”) pipeline. (T. 168-169, Exhibit 17). Sabal Trail is a new Greenfield interstate natural gas pipeline. (Id.). Sabal Trail provides DEF and the State of Florida direct access to upstream pipelines that access the abundant onshore conventional and unconventional natural gas supplies, including abundant natural gas shale resources such as the Barnett Shale, Fayetteville Shale, Haynesville Shale, and Woodford Shale. (T. 171-172, Exhibits 17, 18, 19, 54). DEF will have

additional receipt-only interconnects between Sabal Trail and Florida Gas Transmission Company, LLC (“FGT”). (T. 172, Exhibit 18). In the event of a pipeline disruption or curtailment on Sabal Trail, these interconnects allow DEF to utilize its FGT contracts or market supply to deliver gas supply to the Citrus County Combined Cycle Plant. (T. 173-74). As a result, in the event of interruptions to one or more of the fuel supplies to the Plant, DEF will have access to other fuel supplies and other gas pipelines into Florida to ensure the economic delivery of natural gas to the Citrus County Combined Cycle Power Plant. (T. 424-28; Exhibit 53).

This uncontroverted evidence demonstrates that the Citrus County Combined Cycle Power Plant is needed, taking into account the need for fuel diversity and supply reliability. The abundant supply of natural gas resources ensures that fuel is readily available at a cost-effective price to the Plant providing DEF and its customers natural gas supply diversity. DEF’s access to these abundant natural gas supplies for the Plant through gas transportation pipeline interconnections further provides DEF and its customers with fuel supply diversity by ensuring a reliable fuel supply to the Plant. For these reasons, as demonstrated by the evidence, there is fuel supply diversity and reliability for the Citrus County Combined Cycle Power Plant for DEF and its customers.

**Issue 4:**      **Are there any renewable energy sources and technologies or conservation measures taken by or reasonably available to Duke Energy Florida that might mitigate the need for the proposed Citrus County Combined Cycle Power Plant?**

**DEF Position:**

**\*No. Renewable resources are not commercially available on a utility-scale for generation capacity at a cost-effective price. DEF has not received a utility-scale, commercially viable solar or wind proposal that has achieved commercial operation. Large scale, commercially viable and economic generation capacity renewable projects cannot be reasonably expected at this time.**

**No demand-side resources are reasonably available to replace or mitigate DEF’s need for**

**additional generation capacity in 2018. DEF included demand-side resources in its current DSM Plan in determining the Base Generation Plan. The Citrus County Combined Cycle Power Plant is needed even if DEF meets its current and proposed DSM program goals. Conservation measures do not replace or offset the need for the Plant.\***

**The Record Evidence Conclusively Shows that there are no Renewable Energy Sources and Technologies or Conservation Measures Reasonably Available to the Company to Mitigate the Need for the Citrus County Combined Cycle Power Plant**

The uncontroverted evidence demonstrates that there are no renewable energy sources and technologies or conservation measures reasonably available to DEF to mitigate the need for the Citrus County Combined Cycle Power Plant. No intervenor witness even testified to this issue in this Docket. No party asserted that renewable energy sources or technologies exist to mitigate DEF's need and no party other than SACE challenged DEF's evidence that all conservation measures reasonably available to the Company were employed and DEF still needs the Citrus County Combined Cycle Power Plant in 2018.

The record evidence demonstrates that renewable resources such as wind, solar, and biomass are not commercially available on a utility-scale for generation capacity at a cost-effective price. (T. 428). DEF has a continuing Request for Renewables ("RFR") for renewable generation resources and DEF has not received a utility-scale, commercially viable solar or wind proposal that has actually achieved commercial operation. (T. 428). DEF's 2018 RFP was open to all proposals for additional firm, dispatchable generation capacity and the utility-scale proposals DEF received were for gas-fired generation. (T. 428; Exhibit 48, Appendix A, 59). There are no economic generation capacity renewable energy projects that can mitigate DEF's need for the Citrus County Combined Cycle Power Plant.

There also are no demand-side conservation resources reasonably available to DEF to replace or mitigate DEF's need for the Citrus County Combined Cycle Power Plant in 2018. DEF included the demand-side resources in its current Demand Side Management ("DSM") Plan

in its determination of its Base Generation Plan that included the Citrus County Combined Cycle Power Plant. (T. 416-20). DEF further determined that there were no proposed DSM goals for Commission approval in Docket No. 130200-EI that required any adjustment to the DSM goals and measures included in its IRP process that generated its Base Generation Plan. (T. 418-20, 767-69). As a result, DEF determined that the Citrus County Combined Cycle Power Plant is needed even if the Company meets all its DSM program goals, thus, there are no conservation measures that replace or offset the need for the Plant in 2018.

SACE cannot and does not dispute this evidence that the Company has incorporated its DSM goals in its Base Generation Plan and that there are no conservation measures that mitigate DEF's need for the Citrus Country Combined Cycle Power Plant. Rather, SACE acknowledged that it was questioning DEF's DSM goals and measures based on issues properly before the Commission in Docket No. 130200-EI. (T. 770). SACE even introduced an exhibit from Docket No. 130200-EI. (Exhibits 142). The issues properly before the Commission in Docket No. 130200-EI regarding DEF's future DSM goals and, subsequently, DEF's future DSM measures to meet those future goals have no bearing on the issue involving DEF's application of its current DSM goals and measures in its determination of need for the Citrus County Combined Cycle Power Plant in this Docket. (T. 771-772).

As a result, based on the uncontroverted evidence in this Docket, there are no renewable energy sources and technologies or conservation measures taken by or reasonably available to DEF that mitigate the need for the Citrus County Combined Cycle Power Plant.

**Issue 5: Is the proposed Citrus County Combined Cycle Power Plant the most cost-effective alternative available to meet the needs of Duke Energy Florida and its customers?**

**DEF Position:**

**\*Yes. DEF screened supply-side alternatives in its IRP process before identifying the Citrus County Combined Cycle Power Plant. The Plant is a highly efficient, state-of-the-art, natural-gas fired plant with relatively lower production costs, creating significant fuel savings benefits. Shared site infrastructure and existing transmission infrastructure add substantial benefits to this Plant.**

**Through the 2018 RFP, DEF determined that the Plant was more cost-effective than any proposal. No bidder proposal came close to matching its benefits. The closest proposal scenario was over \$470 million less cost effective and all proposals combined was over \$1.2 billion less cost effective. Based on DEF's IRP process, and the 2018 RFP process, the Plant is the most cost effective generation resource for DEF's customers.\***

**The Record Evidence Demonstrates that the Citrus County Combined Cycle Power Plant is the Most Cost-Effective Alternative to Meet the Needs of DEF and its Customers**

No intervenor party or witness challenged DEF's evidence that, if the Citrus County Combined Cycle Power Plant is needed beginning in 2018, it is the most cost effective alternative to meet that need for DEF and its customers. The evidence in the record --- based both on DEF's internal, rigorous IRP process and the competitive market process under its 2018 RFP in accordance with the Commission Bid Rule --- conclusively demonstrates that the Citrus County Combined Cycle Power Plant is the most cost effective alternative to meet DEF's customer needs commencing in 2018.

The Company identified the Citrus County Combined Cycle Power Plant as its next planned generating unit ("NPGU") in its IRP process. This process and the selection of the Plant as the NPGU as a result of the IRP process is described in detail by Mr. Borsch in his direct testimony and exhibits, including the Company's Need Study. (T. 404-29; Exhibit 48). No party or witness identifies any error in the Company's IRP process or challenges the selection of the Citrus County Combined Cycle Power Plant as the NPGU as a result of that IRP process. The evidence supporting the selection of the Plant as the Company's NPGU as a result of DEF's IRP process is uncontroverted.



DEF next tested the selection of the Citrus County Combined Cycle Power Plant as its NPGU in the competitive market. DEF developed the 2018 RFP and fairly and impartially implemented it consistent with the Commission Bid Rule. (T. 271-74, 432-76). DEF evaluated the bid proposals in response to the 2018 RFP in a fair and impartial manner to determine the most cost-effective generation capacity resource to meet DEF customer needs. (T. 430-76; Exhibits 56-61). No intervenor party or witness challenges DEF's 2018 RFP or DEF's evaluation of the bid proposals in response to the 2018 RFP. DEF reasonably selected the Citrus County Combined Cycle Power Plant as the most cost effective generation alternative to meet customer needs as a result of the 2018 RFP evaluation. (T. 469-76; Exhibit 61).

The Citrus County Combined Cycle Power Plant is a highly efficient, state-of-the-art natural-gas fired combined cycle generation plant. (T. 400-01). This high efficiency yields relatively lower production costs than any other option or bidder proposal, creating significant relative fuel savings benefits for DEF's customers. (T. 475). The high efficiency coupled with the favorable site location adjacent to the CREC where site infrastructure can be shared and existing transmission infrastructure capacity exists adds substantial benefits to this Plant for DEF's customers. (T. 112, 149, 227-30, 236-37, 400-03). No bidder in response to the 2018 RFP proposed a plant that came close to matching these benefits of the Citrus County Combined Cycle Power Plant for DEF's customers.

All bidder proposals fell short of the Company's reliability needs, and even when combined with generic, unplanned and undeveloped plants, the closest bidder proposal resource plan scenario was over \$470 million less cost effective for DEF's customers. (T. 475-76; Exhibits 60, 61). All bidder proposals combined --- which still did not equal DEF's reliability need in 2018 and beyond --- was over \$1.2 billion less cost effective than the Citrus County

Combined Cycle Power Plant. (T. 475-76 Exhibits 60, 61). Based on this uncontroverted record evidence, the Citrus County Combined Cycle Power Plant is clearly the most cost effective generation resource for DEF's customers.

**Issues 6: Did Duke Energy Florida reasonably evaluate all alternative scenarios for cost effectively meeting the needs of its customers over the relevant planning horizon?**

**DEF Position:**

**\* Yes. DEF's RFP solicited proposals to DEF's Citrus County Combined Cycle Power Plant. DEF used the RFP evaluation process and criteria. An independent monitor ensured the process was fair and impartial and the RFP documents were fair and consistent with the Bid Rule. An independent evaluator ensured DEF's evaluation was fair and impartial and that DEF's most cost-effective proposal selection was reasonable.**

**No bidder proposal met and all proposals combined did not meet DEF's need. DEF quantitatively and qualitatively evaluated proposals in combination with generic plants for a more cost effective scenario and demonstrated the Plant is the most cost-effective generation at \$477 million less expensive than the least-cost scenario. High gas and zero carbon cost sensitivities confirmed this conclusion.\***

**The Undisputed Evidence Demonstrates that DEF Reasonably Evaluated all Alternative Scenarios for Cost Effectively Meeting the Needs of its Customers**

DEF conclusively demonstrated that it reasonably evaluated all alternative scenarios for cost effectively meeting DEF's customer needs commencing in 2018. No intervenor party or witness pointed to any error in or argued for a different result than the selection of the Citrus County Combined Cycle Power Plant in DEF's IRP process. No intervenor party or witness questioned the fairness or impartiality of the 2018 RFP or DEF's evaluation of the 2018 RFP that led to the selection of the Citrus County Combined Cycle Power Plant as the most cost effective generation alternative to meet DEF's need. The evidence is undisputed that DEF (i) reasonably selected the Citrus County Combined Cycle Power Plant at its NPGU in its IRP process; (ii) fairly and impartially administered and conducted the 2018 RFP; and (iii) fairly, impartially, and reasonably selected the Citrus County Combined Cycle Power Plant as the most cost effective

generation alternative in the 2018 RFP evaluation. (T. 268-75, 288, 432-76; Exhibits 35, 48, 56-61).

DEF reasonably evaluated all alternative scenarios to cost-effectively meet the needs of its customers. The Company first identified the Citrus County Combined Cycle Power Plant as its NPGU in its IRP process. This process and the selection of the Plant as the NPGU as a result of the IRP process is described in detail by Mr. Borsch in his direct testimony and exhibits, including the Company's Need Study. (T. 404-29; Exhibit 48). As noted above, no party or witness identifies any error in the Company's IRP process or challenges the selection of the Citrus County Combined Cycle Power Plant as the NPGU as a result of that IRP process. The evidence supporting the selection of the Plant as the Company's NPGU as a result of DEF's IRP process is uncontroverted.

DEF next tested the selection of the Citrus County Combined Cycle Power Plant as its NPGU in the competitive market. DEF developed the 2018 RFP and fairly and impartially implemented it consistent with the Commission Bid Rule to solicit proposals for other generation capacity resources that might prove superior as a supply-side alternative for customers, based on price and non-price attributes, to the Company's Citrus County Combined Cycle Power Plant. (T. 432-76). No intervenor party or witness challenges DEF's 2018 RFP. No intervenor party or witness argues that DEF's 2018 RFP documents were unfair, biased, or inconsistent with the Commission Bid Rule. DEF further retained Alan Taylor with Sedway Consulting, Inc. as an independent monitor and evaluator for the 2018 RFP. (T. 435-36). As the independent monitor, DEF retained Mr., Taylor to ensure the 2018 RFP solicitation documents were clear, fair, and consistent with the Commission Bid Rule. (T. 436, 451). Mr. Taylor confirmed that the 2018 RFP was reasonable and an appropriate document for the solicitation of proposals consistent

with the Commission Bid Rule. (T. 273, 285, 288).

DEF also retained Mr. Taylor as an independent evaluator to ensure that DEF's evaluation of the proposals received in response to the 2018 RFP was fair and impartial and that the Company's selection of the most cost-effective proposal to meet DEF's reliability need in response to the 2018 RFP was reasonable. (T. 435-36). Again, no intervenor party or witness challenges DEF's 2018 RFP evaluation process as unfair, biased, or inconsistent with the Bid Rule and no intervenor party or witness claims the result of DEF's 2018 RFP evaluation was unfair, biased, or unreasonable. Mr. Taylor confirmed that DEF fairly and impartially conducted the 2018 RFP evaluation process. (T. 274, 285). As the independent evaluator, Mr. Taylor further determined that the selection of the Citrus County Combined Cycle Power Plant as the most cost-effective proposal to meet DEF's reliability need in response to the 2018 RFP was reasonable. (T. 282-283, 285). In fact, Mr. Taylor independently concluded, based on his separate proprietary model, that DEF's Citrus County Combined Cycle Power Plant is at least \$282 million CPVRR less expensive than the next best bidder proposal portfolio. (T. 274-280, 283). Mr. Taylor expressed his independent opinion that the Citrus County Combined Cycle Power Plant is the most cost-effective resource in meeting DEF's 2018 resource need. (T. 285).

DEF received bid proposals in addition to the Company's self-build proposal for the Citrus County Combined Cycle Power Plant. None of these proposals individually or collectively met the Company's reliability need for summer generation capacity commencing in 2018. (T. 430). DEF, nevertheless, evaluated all bidder proposals to see if there was any combination of them that, individually or collectively with other, undeveloped generic Company power plants, provided customers a more cost effective supply-side generation alternative to the Citrus County Combined Cycle Power Plant. (T. 430-76; Exhibits 60, 61). These combinations,

or resource combination scenarios, were quantitatively and qualitatively evaluated against the Citrus County Combined Cycle Power Plant. (T. 439-76). That evaluation demonstrated that the Citrus County Combined Cycle Power Plant is the most cost-effective supply-side generation capacity to meet the Company's reliability need in 2018. The Citrus County Combined Cycle Power Plant is approximately \$477 million less expensive than the most realistic least-cost, third-party proposal resource combination scenario. (T. 468; Exhibit 61). Sensitivity analyses involving either a high gas price forecast or a zero carbon cost ("CO2") price scenario confirmed DEF's selection of the Citrus County Combined Cycle Power Plant as the most cost effective generation alternative for DEF's customers. (T. 470-72; Exhibit 61). DEF's 2018 RFP competitive market evaluation demonstrates that the selection of the Citrus Country Combined Cycle Power Plant is the right choice for DEF customers.

The Citrus County Combined Cycle Power Plant is a highly efficient, state-of-the-art, natural-gas fired combined cycle generation plant. This high efficiency yields relatively lower production costs than any other option or bidder proposal, creating significant relative fuel savings benefits for DEF's customers. (T. 475-78). The favorable site location adjacent to the CREC, where site infrastructure can be shared with and existing transmission infrastructure can be used for the Plant, adds substantial benefits to this Plant for DEF's customers. (T. 475-78). No third party bidder in response to the 2018 RFP proposed a plant that came close to matching these benefits of the Citrus County Combined Cycle Power Plant for DEF's customers.

The uncontroverted evidence demonstrates that DEF reasonably evaluated all alternative scenarios for cost effectively meeting the needs on its customers and reasonably selected the Citrus County Combined Cycle Power Plant as the most cost effective and right choice to meet DEF's customer needs.

**Issue 7: Based on the resolution of the foregoing issues, should the Commission grant the requested determination of need for the proposed Citrus County Combined Cycle Power Plant?**

**DEF Position:**

**\*Yes. DEF needs the Citrus County Combined Cycle Power Plant to maintain reliability and to provide customers adequate electricity at a reasonable cost. The Plant enables DEF to meet its Reserve Margin commitment by improving the quantity and preserving the quality of its total reserves. The Plant adds natural gas fuel supply diversity, and technology, age, and functionality diversity to DEF's fleet. DEF exhausted reasonably available, cost effective conservation measures and selected the Plant as its most cost-effective alternative in a competitive process. The Plant will be a state-of-the-art, fuel efficient, environmentally preferable installation. DEF will successfully obtain all necessary permits to build and operate the Plant and urges the Commission to approve DEF's plan to build the Plant.\***

**The Record Evidence Demonstrates that the Commission Should Grant DEF's Petition for Determination of Need for the Citrus County Combined Cycle Power Plant**

DEF needs the Citrus County Combined Cycle Power Plant to maintain its electric system reliability and integrity and to provide its customers with adequate electricity at a reasonable cost. By building the Citrus County Combined Cycle Power Plant, the Company will be able to meet its commitment to maintain a 20 percent Reserve Margin, and it will do so by improving not just the quantity, but also preserving the quality, of its total reserves, maintaining an appropriate portion of physical generating assets in the Company's overall resource mix. (T. 478). The Plant also adds diversity to DEF's fleet of generating assets, in terms of natural gas fuel supply diversity, technology, age, and functionality of the Plant. (T. 400-01, 423, 426-27, 478). Having exhausted cost effective conservation measures reasonably available to the Company in the timeframe of the need, DEF selected the Citrus County Combined Cycle Power Plant as its most cost-effective alternative for meeting its reliability needs. (T.418-20, 478, 488, 493).

The Plant will be a state-of-the-art, fuel efficient, environmentally preferable installation

that will be located on a site that takes advantage of existing transmission infrastructure and other infrastructure resources at the CREC adjacent to the Plant site. (T. 475-78). The Company believes it will successfully obtain all necessary permits to build and operate the Citrus County Combined Cycle Power Plant through the SCA approval process. (T.156-61, 478). Based on this record evidence, DEF requests the Commission to approve DEF's plan to build the Citrus County Combined Cycle Power Plant and grant DEF's Petition for Determination of Need for the Citrus County Combined Cycle Power Plant.

**Issue 8:        Should this docket be closed?**

**DEF Position:**

**\*Yes, following a final order by the Commission granting the requested determination of need for the proposed Citrus County Combined Cycle Power Plant and pending the filing of reconsideration or for appellate review, if any, yes this docket should be closed.\***

**III.    CONCLUSION.**

For the reasons provided, and based on the uncontroverted evidence in this Docket, DEF respectfully requests that the Commission find that the requirements of Section 403.519 and Rules 25-22.080, 25-22.081, 25-22.082, and 28-106.201, F.A.C. have been met and grant DEF's Petition for Determination of Need for the Citrus County Combined Cycle Power Plant.

Respectfully submitted this 10<sup>th</sup> day of September, 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 this 10<sup>th</sup> day of September, 2014.

/s/ James Michael Walls

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