

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**In re: Joint Petition for Determination )  
of Need for an Electrical Power Plant )  
in Volusia County by the Utilities )  
Commission, City of New Smyrna Beach, )  
Florida, and Duke Energy New Smyrna )  
Beach Power Company Ltd., L.L.P. )**

---

**Docket No. 981042-EM**

**FILED: January 19, 1999**

**FLORIDA POWER & LIGHT COMPANY'S  
MEMORANDUM ON THE FACT AND POLICY ISSUES**

**STEEL HECTOR & DAVIS, LLP  
215 South Monroe Street  
Suite 601  
Tallahassee, FL 32301  
(850) 222-2300**

**Attorneys for Florida Power  
& Light Company**

DOCUMENT NUMBER-DATE

~~00009~~ JAN 09 20 92

FPSC RECORDS/REPORTING

**TABLE OF CONTENTS**

	<b>Page</b>
<b>Introduction</b> .....	<b>1</b>
<b>I. The Petitioners Have Failed To Prove A Utility Specific Need For The Project.</b> .....	<b>4</b>
<b>A. The Petitioners’ Witnesses Proved The Necessity Of A Contract To Show Need.</b> .....	<b>4</b>
<b>B. The Petitioners’ Evidence Fails To Meet The Utility Specific Criteria of Section 403.419.</b> .....	<b>6</b>
<b>C. No Showing Has Been Made Of A Utility Specific Need For DNS’ Merchant Capacity.</b> .....	<b>8</b>
<b>II. The Petitioners Failed To Prove There Is A “Peninsular Florida” Need For DNS’ Merchant Capacity.</b> .....	<b>8</b>
<b>A. DNS’ Merchant Capacity Is Not Needed To Maintain “Peninsular Florida’s” System Reliability and Integrity.</b> .....	<b>9</b>
<b>B. It Has Not Been Shown That DNS’ Merchant Capacity Will Provide “Peninsular Florida” Adequate Electricity At A Reasonable Cost.</b> .....	<b>10</b>
<b>C. Petitioners Fail To Show DNS Is Peninsular Florida’s Most Cost-Effective Alternative.</b> .....	<b>14</b>
<b>D. Petitioners Have Not Proven That Conservation Measures Are UnAvailable To Mitigate A “Peninsular Florida” Need.</b> .....	<b>15</b>
<b>E. The Petitioners Show That The DNS Plant Will Be Duplicative.</b> .....	<b>16</b>
<b>III. The Project’s Environmental Benefits Are Unproven.</b> .....	<b>16</b>
<b>IV. DNS’ Insistence Upon Secrecy Has Precluded The Petitioners From Meeting Their Burden Of Proof.</b> .....	<b>18</b>
<b>V. Do Not Abandon The Siting Act.</b> .....	<b>19</b>

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**In re: Joint Petition for Determination of Need )  
for an Electrical Power Plant in Volusia County ) DOCKET NO. 981042-EM  
by the Utilities Commission, City of New Smyrna )  
Beach, Florida, and Duke Energy New Smyrna ) DATE: January 19, 1998  
Beach Power Company Ltd., L.L.P. )**

**FLORIDA POWER & LIGHT COMPANY'S  
MEMORANDUM ON THE FACT AND POLICY ISSUES**

**Introduction**

The need petition of Duke Energy New Smyrna Beach Power Company Ltd., L.L.P. (“DNS”) and the Utilities Commission, City of New Smyrna Beach, Florida, (“UCNSB”) should be denied on legal, factual, and policy grounds. The petitioners seek relief that can only properly be provided by the Legislature through a change to the Siting Act or by DNS’ doing what it has not done to date: following existing Florida law and meeting utility specific need criteria by securing contracts for the output of the DNS facility.

From a legal perspective, the petitioners ask the Commission to disregard almost a decade of well-reasoned decisions interpreting and applying the Siting Act and Section 403.519, Florida Statutes, including two Supreme Court of Florida decisions that are directly on point. This callous disregard of authority evidences a contempt for existing precedent so deep that the petitioners fail even to acknowledge that they are asking the Commission to change existing law. The petitioners so desperately seek to avoid the unassailable conclusion that existing law precludes their affirmative determination of need that they improperly ask the Commission to address federal constitutional issues in an effort to “trump” that law. But the Commission cannot

go there. It is duty-bound to follow existing Florida law and therefore to dismiss or deny the Joint Petition.

The petitioners fundamentally fail to meet their burden of proof. The petitioners make no effort to demonstrate a utility specific need for 470 out of the Project's 500 MW. This runs afoul of the requirements of *Nassau Power Corporation v. Beard*, 601 So.2d 1175 (Fla. 1992) and *Order Nos. 22341 and 24672*. The petitioners' evidence even falls short in proving that UCNSB has met the need criteria for its 30 MW entitlement from the Project. The petitioners' attempt to prove "peninsular Florida" need rather than utility specific need -- a practice that the Supreme Court said in *Nassau Power Corp. v. Beard* renders the need criteria of Section 403.519 meaningless -- suffers from a variety of deficiencies.<sup>1</sup> The petitioners fail to meet their burden of proof as to every statutory need criterion.

Beyond its factual failings, the Joint Petition also should be denied because it asks the Commission to make bad policy choices. As to DNS' merchant capacity, the petitioners ask the Commission to abandon the policy that a nonutility generator such as DNS must have a contract to sell power to an entity with an obligation to serve. Petitioners make this request even though

---

<sup>1</sup> In an attempt to protect alleged proprietary information, the petitioners fail to prove unit operating parameters, fuel supply adequacy, projected unit operation and economic viability. They proffer a novel "economic need" analysis premised on complex, regulatorally unproven, and inadequately explained computer models which generate questionable simulations that bear little relationship to reality. In doing so they disregard their own evidence which proves that there is no reliability need for this power plant and that it is unnecessarily duplicative. Their economic analysis ignores the requirement that their plant must be the most cost-effective alternative, and it redefines cost-effectiveness as profitability and economic viability. Petitioners make no attempt to show that there is no conservation available that would mitigate the need for their plant. They postulate great environmental benefits from their Project premised on an indefensible analysis performed not by their expert, but by their legal counsel's law clerk.

several of their witnesses stated unequivocally that a contract is needed for their power to be counted for reliability purposes and that a contract is needed to assess cost-effectiveness. They argue that requiring a nonutility generator to have a contract in order to demonstrate need contravenes federal energy policy, yet their federal policy witness can cite no provision of PURPA, the Energy Policy Act, or Order 888 (her sources for federal energy policy) stating that such a contract requirement violates federal energy policy. Tr. 1020 (Hesse). They argue that the Commission should act to enhance a robust wholesale electricity market (a matter outside the Commission's jurisdiction), while disregarding a fundamental concern within the Commission's jurisdiction: there is no reliability need for the Project.

The Commission should consider the serious policy implications of the decision it is being asked by the petitioners to make. Tr. 1517-40 (Steinmeier). The Commission is being asked to give merchant plant developers a special status, relieving them of well-established Siting Act requirements. The consequence of making that decision would be a proliferation of merchant plant need applications and power plants without regard for reliability need. The decision would not relieve utilities of their obligation to plan, but it would make such planning more difficult and would also make utility sitings more difficult. The decision would create a risk of stranded investment, increasing the utilities' cost of providing service. The decision would introduce facilities that are duplicative of planned utility additions, making the Commission's administration of the grid more difficult.

Ultimately, what the petitioners seek is fundamental change in siting policy best left to the Legislature, as the Commission appropriately concluded a year ago in denying DNS' petition for a declaratory statement. Petitioners seek a change in the interpretation of the Siting Act by

the highest court in Florida; this may be done only by the Legislature. They seek a fundamental change in siting theory -- allowing the market rather than the Commission to determine need and cost-effectiveness -- that is appropriately considered only by the Legislature. They seek to introduce merchant plants to Florida without a demonstration of need as it has been historically determined; this is appropriately considered only by the Legislature. The Commission's role is to apply Florida siting law as it finds it. Change of that law and the policy underlying it is properly left to the Legislature. The Joint Petition should be denied.

**I**  
**The Petitioners Have Failed To Prove  
A Utility Specific Need For The Project.**

Both the Commission and the Supreme Court of Florida have held that the need determination criteria of Section 403.519 are utility specific. *Order Nos. 22341, 24672; Nassau Power Corp. v. Beard*. The petitioners make no attempt to prove a utility specific need for 94% of the Project, 470 out of 500 MW. Their attempt to prove UCNSB's need for a 30 MW entitlement from the project falls short of the necessary showing.

**A. The Petitioners' Witnesses Proved The Necessity Of A Contract To Show Need.**

In *Ark and Nassau*, 92 FPSC 10:643, which was affirmed by the Supreme Court of Florida in *Nassau Power Corp. v. Deason*, 641 So.2d 396 (1994), the Commission established a requirement that a nonutility generator such as DNS must meet the utility specific need criteria of Section 403.519 by having a contract for its output with an entity with an obligation to serve and a corresponding need. Although the petitioners have advanced legal arguments that the contract requirement of these cases does not or should not apply to them (see FPL's Supplemental Legal Memorandum for the proper resolution of these arguments), the petitioners' witnesses

inadvertantly have made a convincing case that to be able to count DNS' merchant capacity for reliability purposes or to assess the cost-effectiveness of DNS' merchant capacity, there must be a contract between DNS and a purchasing utility or utilities.

Mr. L'Engle made the most compelling case for the need of a contract. Early on in his testimony, he stated: "So if we are talking about being able to rely on a power supply, it would take a contract which would provide us a firm resource. I would not rely on the non-firm market to supply a firm need." Tr. 538. He further stated that a merchant plant's "capacity would not count towards being anybody's reserve margin unless it is firmly committed by contract." Tr. 562. For DNS' capacity to be factored in as capacity available to the state, it has to be under firm contract. Tr. 564.

Mr. Vaden also demonstrated the need for a contract in order to meet reliability or assess cost-effectiveness. As to reliance on a merchant plant, he stated: "I wouldn't use it as a resource to count and to add up to meet my 100% load and my reserves." Tr. 505. This was consistent with his earlier testimony that absent a contract, the UCNSB would not have an entitlement to DNS' 30 MW of capacity and associated energy, would not be entitled to replacement power, and would have no assurance that the power from the DNS unit would be available to it. Tr. 443-444. He also testified that he needed a contract to be able to assess the cost-effectiveness of the DNS power. Tr. 442.

Even Mr. Green testified that the UCNSB has no contractual right to count on more than 30 MW from the DNS unit. Tr. 635-36. He could not say what UCNSB's price would be for power above its 30 MW entitlement, and he could not say what the price of power from the sale of DNS' merchant capacity would be. Tr. 636-37.

Of course, Mr. Steinmeier also testified as to why the Commission's policy of requiring a nonutility generator to have a contract to be able to demonstrate need was a sound regulatory policy (Tr. 1522), but the admissions of the petitioners' own witnesses are particularly compelling. The simple fact is that a nonutility generator cannot meet the utility specific criteria of Section 403.519 unless the purchasing utility is identified and there are contract terms that allow the Commission to assess reliability and cost-effectiveness. Absent such terms, the Commission has insufficient information to discharge its statutory responsibility.

**B. The Petitioners' Evidence Fails To Meet The Utility Specific Criteria of Section 403.419.**

FPL acknowledges that UCNSB has a need for additional generating capacity to meet its load requirements and reserve margins. Its 30 MW "entitlement" to DNS power could<sup>2</sup> meet that need, assuming Duke commits to provide that power under a final purchased power agreement. However, Mr. Vaden also sponsored an exhibit showing that without DNS there is sufficient capacity in Florida to meet reasonable reliability criteria. Ex. 7, sch. 7, (RLV-7) shows that, without the DNS unit, there is sufficient capacity for "peninsular Florida," including the UCNSB, to achieve summer and winter reserve margins in excess of 17% from the time the DNS unit would come on line through the summer of 2007.<sup>3</sup> Exhibit 4 shows such a 15% reserve

---

<sup>2</sup> There are several provisions in the Participation Agreement that create doubt about the continued reliability of the DNS power for UCNSB. Paragraph 1.2 excuses DNS from providing replacement power during scheduled or unscheduled outages. Ex. 7. Paragraph 1.1 allows DNS to walk at the point DNS determines the Facility is no longer technically capable of producing energy at a cost that results in a reasonable profit and cash flow to DNS. Ex. 7.

<sup>3</sup> Mr. Vaden's exhibit shows the following: from the in-service date of the DNS unit through the summer of 2008, the summer reserve margin without DNS ranges from 18.7% to 20.47%. From the in-service date of DNS through the winter of 2007/2008, the winter reserve margin meets or exceeds 17%. Ex. 7, sch. 7. UCNSB's reserve margin is 15%. Tr. 434.



margin criterion is reasonable for “peninsular Florida.”<sup>4</sup> Thus, the DNS entitlement is not needed for the UCNSB to maintain electric system reliability and integrity.

UCNSB’s proof also fails to show that the 30 MW from DNS is UCNSB’s most cost-effective alternative. The only options UCNSB directly compared to the DNS option were continued purchases from FPC, TECO and Enron. Tr. 449-50. UCNSB did not compare DNS to a self-build option, dismissing such an exercise as a “useless process,” even though the only self-build analysis UCNSB has performed in the last five years was an analysis performed in 1993 by GE. Tr. 450-51. UCNSB issued no capacity purchase RFP. Tr. 451. UCNSB did not even attempt to see if another developer like DNS would be willing to beat DNS’ arrangement. Tr. 451-52. Mr. Vaden suggested that the price negotiated with DNS was a “no-brainer,” making further analysis pointless. While clearly having negotiated a good price for power, the UCNSB’ deal with DNS is not self-evidently the “most cost-effective alternative available.” UCNSB has failed to perform the activities necessary to assure it and the Commission that DNS is the most cost-effective alternative available. UCNSB has failed to meet its burden of proof.

UCNSB has also failed to meet its burden of proof as to the availability of conservation on its system which would mitigate the need for the DNS purchase. The only active demand side management programs offered by UCNSB are load management and energy audits. Tr. 390-91. Green pricing with a photovoltaic unit is planned but not available. Tr. 391. UCNSB offered no other proof of conservation potential on its system or that it has investigated such potential and

---

<sup>4</sup> Mr Vaden suggested that a reserve margin of 15% for peninsular Florida was inadequate because it could not handle extreme weather. Tr. 423. However, his utility’s choice of the same reserve margin of 15% (Tr.434) belies his argument.

found that there was none available to mitigate the need for the plant. Tr. 390-91. This falls short of meeting UCNSB's burden of proof.

**C. No Showing Has Been Made Of A Utility Specific Need For DNS' Merchant Capacity.**

The petitioners have made no attempt to demonstrate that an individual utility in Florida other than the UCNSB has a need for its plant's capacity and energy. Ex. 2, admission 4. No purchasing utility other than UCNSB has been identified. Ex. 2, admission 3. Petitioners have not demonstrated that any Florida utility other than UCNSB lack conservation measures reasonably available that would mitigate the need for the project. Ex. 2, admission 8. The petitioners' failure to prove that DNS' merchant capacity is needed by, and cost-effective to, individual Florida utilities is fatal; the need criteria of Section 403.519 are utility specific.

*Nassau Power Corp. v. Beard; Order Nos. 22341, 24672.*

**II**

**The Petitioners Failed To Prove There Is A  
"Peninsular Florida" Need For DNS' Merchant Capacity.**

Instead of making the utility specific showing required under Section 403.419 and *Nassau Power v. Beard*, the petitioners attempt to show that there is a "peninsular Florida" need for their plant's output. Given that the Supreme Court of Florida has held that an attempt to meet the cost-effectiveness criteria of Section 403.519 is rendered meaningless by resort to a statewide rather than an individual utility assessment, the petitioners' evidence regarding "peninsular Florida" need is legally insufficient to meet their burden of proof. A review of the evidence also shows that the petitioners failed to prove even a "peninsular Florida" need under each of the Section 403.519 need criteria.

**A. DNS' Merchant Capacity Is Not Needed To Maintain "Peninsular Florida's" System Reliability and Integrity.**

Mr. Vaden's RLV-7 (Ex. 7, sch.7) shows that the DNS is not needed for "peninsular Florida" to meet a reliability criterion of a 15% reserve margin.<sup>5</sup> The propriety of the FRCC's 15% reserve margin criterion for "peninsular Florida" is well documented in the FRCC's *1998 Reliability Assessment*. Ex. 4. The FRCC Working Group examined the 15% reserve margin criterion and found it provided "adequate levels of reserve margin for reliable service." Ex. 4.

Several of the petitioners' witnesses took issue with the FRCC's reserve margin criterion, but the evidence supports the FRCC conclusion. Mr. Vaden testified that the 15% peninsular Florida reserve margin was too low given extreme weather (Tr. 423). However, his credibility was significantly undermined by his acknowledgments that he had never performed a statewide reliability assessment or generation expansion plan or served on the FRCC Working Group (Tr. 435), and by his admission that his utility employed a 15% reserve margin criteria (Tr. 434). Mr. Green volunteered that the 15% reserve margin criteria was too low, but he testified that he was not an expert in electric system planning, reliability, or generation expansion (Tr. 625) and that he had not performed analyses that would suggest skill necessary to make an informed opinion as

---

<sup>5</sup> Without DNS, "peninsular Florida" enjoys after DNS' in-service date through the summer of 2007 a summer reserve margin from 18.7-20.47%. Ex.7. This is in excess of the FRCC's peninsular Florida 15% reserve margin criterion (Ex. 3, 4), FMPA's summer reserve margin criterion of 18% (Tr. 556) and UCNSB's reserve margin criterion of 15% (Tr. 434). Without DNS "peninsular Florida" enjoys after DNS' in-service date through the winter of 2006/2007 a winter reserve margin in excess of 17%. Ex.7. This is in excess of the FRCC's peninsular Florida 15% reserve margin criterion (Ex. 3, 4), FMPA's winter reserve margin criterion of 15% (Tr. 556) and UCNSB's reserve margin criterion of 15% (Tr. 434).

to electric system reserve margins.<sup>6</sup> Also, it should be noted that both the UCNSB and DNS are either on the FRCC (Tr.468) or represented on it (Joint Petition at 9), making the FRCC's vote to adopt the 15% reserve margin criterion as proper an admission of both parties. Dr. Nesbitt did not employ reliability criteria in his analysis.<sup>7</sup> Tr. 798-99.

Several DNS witnesses testified that the plant would increase peninsular Florida reliability. However, that testimony was refuted by Messrs. L'Engle and Vaden, who stated that a plant could not be relied upon without a contract. Tr. 538, 562, 562, 505.

The record supports three conclusions. First, the FRCC's peninsular Florida 15% reserve margin criterion is reasonable. Second, without DNS, peninsular Florida will enjoy reserve margins well in excess of 15% from the in-service date of the DNS unit through the summer of 2007. Third, DNS' merchant capacity is not needed for peninsular Florida reliability.

**B. It Has Not Been Shown That DNS' Merchant Capacity Will Provide "Peninsular Florida" Adequate Electricity At A Reasonable Cost.**

Absent a contract committing DNS' merchant capacity to Florida utilities at a known price, the Commission has insufficient information to make a finding that the DNS merchant capacity will result in adequate electricity at a reasonable price for "peninsular Florida." Tr. 1521-26 (Steinmeier). The Commission does not know (1) if the DNS merchant power would be

---

<sup>6</sup> Mr Green had not ever performed a load forecast or a generation expansion plan for peninsular Florida or elsewhere. He had not ever run a system production costing model or performed a system reliability assessment for Duke Energy, peninsular Florida or anywhere else. He had never testified on integrated resource planning or for Duke Energy on system planning. Tr. 624-25.

<sup>7</sup> Dr. Nesbitt did not testify that DNS' merchant capacity was needed for peninsular Florida reliability. In fact, he testified that the 5400 MW of gas-fired combined cycle capacity he suggested was "needed" had no bearing whatsoever on proper reserve margin. Tr. 853

bought, (2) if the DNS merchant power were bought, whether the purchasing entity would be a peninsular Florida utility, or (3) the price at which the DNS merchant power would be bought.

DNS has not committed to sell the output of its plant to peninsular Florida utilities. Tr. 599 (Green). DNS does not know to which, if any, peninsular Florida utilities it will sell. Tr. 600 (Green). Mr. Green acknowledged that DNS would sell power outside of Florida to take advantage of economic opportunities in the SERC region. Tr. 586, 626. Mr. Green could not state the price at which its merchant power would be sold. Tr. 637.

Mr. Green did maintain that the primary market for its power would be peninsular Florida utilities, for three reasons.<sup>8</sup> However, on cross-examination, Mr. Green's rationales for his conclusion that DNS' power would stay in Florida were shown to be suspect.<sup>9</sup>

Dr. Nesbitt's conclusions that power from the DNS unit would stay in Florida and that the price of the DNS power would be reasonable do not overcome Mr. Green's admissions. Dr. Nesbitt testified on direct that DNS did not intend to sell out of Florida (Tr. 720), but Mr. Green contradicted that testimony with his candid acknowledgment that DNS intended at least some short-term sales outside the state (Tr. 586). Dr. Nesbitt suggested that DNS would sell at a

---

<sup>8</sup> These are: (1) relatively low generation costs in the SERC region relative to peninsular Florida; (2) recent market shortages and projected tight reserves in peninsular Florida relative to SERC, and (3) limited transmission export capability from Florida into SERC. Tr 585, 626-630.

<sup>9</sup> Mr. Green readily acknowledged that there was no transmission constraint on the export of DNS power from Florida with an export capability of 1900 MW in summer and 2500 MW in winter, which with open access, is available to DNS. Tr. 627. He also acknowledged that in the recent power shortages both inside and outside Florida the prices outside Florida were higher, suggesting a market opportunity outside Florida for DNS. Tr. 629-30. As to tight reserves, Dr. Nesbitt's exhibit, Ex. 18, sch. 5 and 6 (DMN-5, 6), actually shows reserves in SERC being significantly tighter than in Florida, suggesting yet another market opportunity for DNS outside of Florida.

reasonable cost relative to the marginal unit on the system, but he readily acknowledged that he was not comparing the cost of DNS to other competing new alternatives (Tr. 751).

Dr. Nesbitt's conclusions are premised upon his computer simulations, which are highly suspect. His North American Regional Electricity Model is untested before regulatory bodies.<sup>10</sup> The market he simulates is not the current market, but the "coming merchant world," which by his own admission is not in place in Florida.<sup>11</sup> The Commission has virtually no data from his analysis with which to judge the reasonableness of his simulations and conclusions.<sup>12</sup> The net

---

<sup>10</sup> Dr. Nesbitt admitted that to his knowledge his computer models had never been presented to a regulatory agency, reviewed by a regulatory agency or relied upon by a regulatory agency. Tr. 807. It is certainly unlike any model this Commission has reviewed. Indeed, Dr. Nesbitt dismisses the system reliability analyses that the Commission has historically relied upon and reviewed as simplistic. Tr. 705-06.

<sup>11</sup> Dr. Nesbitt described the market he simulated as an "aggregate market in Florida. Everybody in that aggregate market sells at and buys at the fair market price and that that fair market price clears that market. There is no excess or shortage of supply. There is no excess or shortage of demand because the price adjusts itself upward and downward over time to clear the market. ... [E]verybody in Florida on the producers' side is a price taking, profit-maximizing producer, and everybody on the consumers' side is a cost-minimizing, shop-around consumer looking for the best price for their power." Ex. 43, Vol. 1, at 88. He readily acknowledged to Commissioner Garcia that the Florida wholesale market may not operate as he modeled it. Tr. 785. He characterized the wholesale market he simulated as "the coming merchant world" (Tr. 787; DMN-15), which he characterized as a world without fixed cost pass through, no market power, and every plant being privately owned as a de facto profit center (Tr. 791). Dr. Nesbitt acknowledged that his modeled coming merchant world does not currently exist in Florida (Tr. 792), but he thought it would be seen "within the next decade" (Tr. 788). He explained several transitions that would have to happen to the Florida market for it to be the "coming merchant world" he had simulated, including elimination of fixed cost pass through, establishing a highly transparent power exchange or total deregulation of every thing except transmission and downstream. Tr. 793-94. His model assumed deregulation not just for Florida, but for all regional markets. Tr. 798.

<sup>12</sup> Despite the significant numbers of exhibit pages Dr. Nesbitt sponsored, they are virtually devoid of his highly self-touted computer analyses. His simulation was run beginning in the year 2000 through the year 2014. Ex. 43, Vol. 2, p. 116. The only exhibit he sponsored

energy for load forecast he employed for his simulation was two years old, despite the availability of more recent data.<sup>13</sup> Other assumptions that were brought to the Commission's attention cast real doubt on the reliability of Dr. Nesbitt's analysis and its ability to simulate real world conditions.<sup>14</sup> Finally, Dr. Nesbitt appeared to attempt to hide a model he relied upon for some of his more critical calculations regarding DNS. It was not even disclosed in his direct testimony, and it was not provided in discovery, even though there were discovery requests to

---

that contains data from his computer simulations beyond the year 1998 is DMN-7, and the only data on it that is from those simulations is the capacity factor column (Tr. 815). Those capacity factors were developed with his Operations model (Tr. 815), a model that he does not even mention in his direct testimony, and his Regional Electricity Model (Ex. 43, Vol 1, pp. 81,82), which he goes to great lengths to attempt to validate. His exhibits DMN-5 and DMN-6 provide NERC data for 2006, but that was not used in his simulation. The Commission does not have before it the production costs of the various types of units used to develop Florida market clearing prices, the price of power available to Florida from SERC, another input to the calculation of Florida market clearing prices, the market clearing prices actually calculated, DNS' production costs, the margin between the Florida market clearing prices and DNS' production costs, the calculation of the economic viability of the DNS unit, and a host of other information necessary to judge the validity of Dr. Nesbitt's simulations and conclusions. In other words, he asks you to just trust him.

<sup>13</sup> Dr. Nesbitt thought he had used the 1997 NERC data for net energy for load (Ex. 43, Vol. 1, p.45), but upon checking, he admitted he used the 1996 NERC data (Ex. 43, p.64; Tr. 800). Since the NERC NEL forecast only went through 2005, he extrapolated it forward on his own. Tr. 800.

<sup>14</sup> Other questionable assumptions employed by Dr. Nesbitt include: 100% unit availability (Tr. 799); the modeling of aggregation of units with weighted average heat rates and nonfuel O&M rather than individual unit modeling (Tr. 803); the modeling of Unit Power Sales from Georgia at the SERC market clearing price rather than at their contract price (Tr. 803-04); the modeling of QF and other NUG purchases at the Florida market clearing price rather than at their contractual price (Tr. 804); the modeling of a Georgia unit owned by a Florida utility at the SERC market clearing price rather than at its cost of production (Tr. 806); and the complete absence of planned Florida unit additions (Tr. 806) and their oil displacement benefits.

which Dr. Nesbitt ultimately admitted it was responsive.<sup>15</sup> In short, there are too many unanswered questions about Dr. Nesbitt's analyses to rely upon his conclusions.

**C. Petitioners Fail To Show DNS Is Peninsular Florida's Most Cost-Effective Alternative.**

There is no contract for the merchant capacity. Consequently, there is no cost to peninsular Florida utilities that may be used to assess cost-effectiveness. As Mr. Vaden testified, absent a contract and a price, cost-effectiveness cannot be determined. Tr. 442. The Commission may not presume cost-effectiveness. *Nassau Power Corp. v. Beard*.

The petitioners attempt to address "peninsular Florida" cost-effectiveness with two very different approaches. Mr. Vaden offers a comparison of the construction cost, installed cost and heat rates of the DNS unit with planned utility gas combined cycle additions. Ex. 7, sch.8 (RLV-8). Dr. Nesbitt finesses the issue by testifying that gas combined cycle technology, not the DNS unit, is the most cost-effective alternative to meet "peninsular Florida" needs. Tr. 714.

However, he also notes that "[i]n a competitive environment a cost-effective facility is by

---

<sup>15</sup> Dr. Nesbitt did not use his highly self-touted Regional Electricity model to model DNS. His modeling of the DNS unit was performed in his Operations model. Ex. 43, Vol. 1, p. 81. His Operations model was not even mentioned in his direct testimony. FPL asked three discovery requests to which the Operations model and the runs used to analyze DNS were responsive. Ex. 20, requests 1-3. Dr. Nesbitt admitted on cross-examination that the Operations model runs were responsive to requests 1 and 3. Tr. 812, 814, 815. Dr. Nesbitt also acknowledged that the Operations model and the runs supporting his DMN-7 were not provided to FPL in discovery. Tr. 811, 815. The purpose of this discussion is not to renew FPL's motion to strike; it has been denied. The purpose of this discussion is to give the Commission pause about relying upon analyses that this witness has gone to great length not to disclose and that never were introduced into the record. It is from the Operations model that Dr. Nesbitt drew his conclusions regarding the economic viability and profitability of the DNS Project, the costs at which DNS would produce its power, the prices at which DNS would sell its power, and the Project's projected capacity factors. The Commission has not seen the analysis by his choice, and FPL has been denied its right to see the analysis by his behavior.



definition economically viable.” Tr. 716. Thus, he compares DNS to the marginal units in Florida and determines whether the DNS would be economically viable. Neither approach shows that the DNS unit is “peninsular Florida’s” most cost-effective alternative.

Mr. Vaden’s comparative unit analysis was shown in cross-examination to be seriously flawed.<sup>16</sup> Tr. 459-67. One may not reasonably conclude from this incomplete analysis that the DNS plant is “peninsular Florida’s” most cost-effective alternative.

Dr. Nesbitt’s economic viability analysis was not introduced, and it used a model that he did not disclose. *See* p.13, n.12 *supra*. Aside from the questionable validity of Dr. Nesbitt’s economic viability analysis, the analysis does not perform the comparison required under the statute. It does not, as he pointed out, compare DNS to any other individual unit. Tr. 837. While his comparison of DNS to existing units may be appropriate to measure economic viability, it does not measure comparative cost-effectiveness among competing new alternatives.

**D. Petitioners Have Not Proven That Conservation Measures Are UnAvailable To Mitigate A “Peninsular Florida” Need.**

This statutory need criterion has been ignored by the petitioners as to DNS ’merchant capacity. Petitioners introduce no testimony addressing the conservation potential of either individual Florida utilities (other than UCNSB) or “peninsular Florida.” Ex. 2, admission 8. In

---

<sup>16</sup> This analysis did not even calculate the relative production costs. Tr. 460. It did not include fuel supply or fuel transportation costs, variable O&M, and fixed O&M. Tr. 461-62. Mr. Vaden noted that he could not conclude this Project is going to have as low or lower costs than other projects without having this information available to him. Tr. 463. The construction costs shown were in different years’ dollars. Tr. 463. He did not even know if the installed costs he compared were in different years’ dollars. Tr. 463. He used data from an FPL source without regard for the indication that the data did not reflect all associated benefits. Tr. 464-67. His analysis did not capture the fuel displacement benefits of the alternatives. Tr. 467.

fact, they do not even sponsor a load forecast. Dr. Nesbitt's analysis uses a two year old NERC NEL forecast (Tr. 800), but no testimony indicates whether it includes or excludes conservation.

**E. The Petitioners Show That The DNS Plant Will Be Duplicative.**

Under Section 403.519, the Commission may consider other matters within its jurisdiction. One important matter is whether the Project will be a duplicative facility. Mr. Vaden showed that the DNS facility is not needed to meet "peninsular Florida's" reliability needs. Ex. 7, sch. 7. Dr. Nesbitt initially suggested that there was an economic need for the DNS unit to replace existing generation,<sup>17</sup> but he ultimately disclosed that his analysis showed that the introduction of 5400 MW of gas-fired combined cycle units in 2000 would not result in the retirement of even one existing unit (Tr. 915). Based on the petitioners' testimony, there would be a duplication of facilities if the DNS unit were built. It is not needed for reliability, and it will not cause the retirement of an existing, less efficient unit. This is a ground for denial.

**III  
The Project's Environmental  
Benefits Are Unproven.**

One of the principal benefits touted for the Project is its purported reduction of air emissions in comparison to existing plants. *See, e.g.*, Tr. 1129 (Meling); Ex. 26. However, petitioners' support of this assertion falls well short of the mark.

Mr. Meling's exhibit (Ex. 26) includes a calculation of the purported reduction in air emissions if the Project is built. Mr. Meling admitted that he did not perform the calculation and

---

<sup>17</sup> In his prefiled direct testimony, Dr. Nesbitt testified to an immediate peninsular Florida "economic need" for 6000 MW of gas-fired combined cycle capacity (Tr. 704, 748) and testified that it would "eliminate old, uneconomic capacity"(Tr. 705). He testified that a critically important need for new capacity was to retire old capacity. Tr. 706.

did not know the details of how it was performed.<sup>18</sup> In fact, Mr. Meling relied entirely upon calculations of air-emission reductions performed by a clerk at one of the petitioners' law firms. Ex. 27 at 41. This was the first time in his career that he, a licensed professional engineer, had relied upon a law clerk to perform engineering calculations for him. *Id.* at 48.

The air-emissions reduction calculations are part of Ex. 27. It is evident from the calculation notes that Mr. Shine took no more care in performing the air-emission calculations than Mr. Meling took in reviewing them.<sup>19</sup> Not only do Mr. Shine's notes reflect, at best, a sloppy and half-hearted approach to developing the air-emission reduction calculations, the

---

<sup>18</sup> For example, he could not recall which existing units had been used in the comparison or the basis for choosing them. Ex. 27 at 41. He understood that the emissions data for the comparison units derived from FERC and FDEP data, but he had not checked to determine whether the data had been accurately taken from those sources. *Id.* at 42. He could not even recall the extent to which he had checked to see that the calculations had been performed accurately. *Id.* at 42, 44.

<sup>19</sup> Mr. Shine states that he chose FPL's Cutler plant as the proxy for gas-fired steam generating units in his calculations but found the FDEP's reported emissions data for the Cutler plant to be questionable. He apparently used instead the emissions data for the Project, factored up to adjust for differences in heat rates between the Cutler plant and the Project. However, he told Mr. Meling that he "can't find my notes to indicate how I came up with the 10,521 and 21,777 heat rates. I will speak with Schef and let you know when we are able to determine the methodology we were contemplating." Ex.27. There is nothing in Exhibit 27 to suggest that Mr. Shine ever made this determination or conveyed it to Mr. Meling.

Of equal concern, Mr. Shine's notes fail to state why he chose FPC's Anclote and FPL's Manatee and Ft. Myers plants as the oil-fired proxies and Cutler as the gas-fired proxy, or why they are representative of units that would be displaced by the Project. Recall that Mr. Meling had no clue how or why the proxy units had been chosen, because he relied exclusively on Mr. Shine to make that choice. Ex. 27 at 41, 48. With nothing in Mr. Shine's notes to supplement that ignorance, the record is entirely devoid of any stated rationale for choosing the proxy units.

values that he did calculate are not even consistent with the values reflected in Mr. Meling's prefiled exhibit.<sup>20</sup>

Finally, it is important to recognize that Messrs. Meling's and Shine's purported air-emission reductions are only for *one year* (2002), rather than for the entire period through 2012. Exhibit 27 cannot properly serve as a basis to conclude that the Project would improve air quality throughout the period of concern, as Mr. Meling asserts.

Mr. Meling does not demonstrate the likelihood of air-emission reductions if the Project is built. Unsubstantiated assertions of air-emission reductions do not justify the Project.

#### IV DNS' Insistence Upon Secrecy Has Precluded The Petitioners From Meeting Their Burden Of Proof.

Petitioners have failed to provide evidence supporting a number of crucial matters necessary to their meeting their burden of proof.<sup>21</sup> They have failed to do so by insisting that the

---

<sup>20</sup> The appendix to Exhibit 27 summarizes what Mr. Meling claims to be the air emissions reductions from running the Project rather than the proxy units. One of the sets of entries in his exhibit is for the Project's offsetting gas-fired generation. It shows an annual NO<sub>x</sub> reduction of 11,389 tons per year ("tpy"). However, page three of Mr. Shine's notes contains calculations of the purported air-emission reductions resulting from displacing the Cutler unit (the gas-fired proxy chosen by Mr. Shine). Mr. Shine calculated the NO<sub>x</sub> reduction to be 6,259.262 tpy, only a bit more than half the value Mr. Meling used in his exhibit. Even more disturbing is the difference between Mr. Meling's and Mr. Shine's values for purported SO<sub>2</sub> reductions. Mr. Meling's exhibit states that there would be a reduction of 26 tpy if the Project were operated instead of the gas-fired proxy. Mr. Shine, however, calculated a 66.952 tpy *increase* in SO<sub>2</sub> emissions if the Project ran instead of the Cutler unit.

<sup>21</sup> To assess whether the unit can operate as it is forecast to operate, it is necessary to know if a sufficient gas supply exists. The exhibit containing the gas contract had the gas volume to be provided redacted. Ex. 25.

Mr. Locasio, the witness responsible for supporting the unit's operating parameters, testified that all the information underlying his exhibit was proprietary, and he could not share it. Tr. 1064.

information is proprietary and then choosing not to disclose it, rather than disclosing it subject to confidentiality protection. Without this critical information, the Commission cannot judge the need for this Project, and the petition should be denied.

V  
**Do Not Abandon The Siting Act.**

The petitioners have sung a siren's song of "no-risk power," improved reliability, reduced power prices, and reduced Florida air emissions. Dr. Nesbitt sang the loudest, repeatedly representing that the proposed Project is so beneficial it is "manna from heaven." Dr. Nesbitt continued the siren's song near the end of his testimony:

The time has come, I believe, to let the market bring the information and **let the market bring the capacity** in a limited, gauged, rationed, metered kind of way. Tr. 945. (Emphasis added.)

All the Commission must do to receive this "manna from heaven" is abandon its legislative directive and the Supreme Court's interpretation of the Siting Act and let the marketplace, rather than the Commission, determine if there is a need for the Project. Before you attempt to gather this "manna from heaven," remember what happened to the Israelites' manna

---

The petitioners put the economic viability of the Project at issue with testimony by Mr. Green (Tr. 587-88) and Dr. Nesbitt (Tr. 716-18). Instead of proving cost-effectiveness, they attempted to prove economic need and viability. Instead of providing the information necessary to prove economic viability, the petitioners claim such information is proprietary. In cross examination, Mr. Green acknowledged that all the following information was necessary to calculate economic viability and that he had not provided it because it was proprietary: the sources and costs of DNS' internal funds, DNS' financing plans, a breakdown of the \$160 million construction cost estimate, funds being advanced by Duke Energy Power Services for fuel, variable and fixed O&M, forward price curves, variable O&M estimates, fixed O&M estimates, how many hours a year the unit needed to run, and the required rate of return Tr.639-655. As previously discussed, Dr. Nesbitt chose not to provide his economic viability.

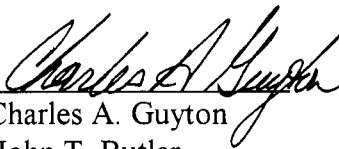
when it was not consumed as directed: "It became putrid and maggoty with worms." *Exodus 16:20*. Blind reliance on market forces, however seductive it may appear, could prove to have no better shelf life than manna.

Beware the siren's song. Need is properly and exclusively determined by the Commission under established principles; it is not determined by the marketplace. Need cannot be shown by an entity without an obligation to serve unless that entity has a contract that demonstrates need. *Nassau Power Corp. v. Deason*. You cannot presume cost-effectiveness by assuming power will be bought only if it is cost-effective. *Nassau Power Corp. v. Beard*. Need cannot be shown under Section 403.519 unless there is a utility specific determination. *Id.* If the DNS Project is as good as the siren's song suggests, petitioners will have no trouble complying with the law and securing the contracts necessary for them to make the necessary utility specific demonstration. The Joint Petition should be denied.

Respectfully submitted,

Steel Hector & Davis LLP  
Suite 601, 215 S. Monroe St.  
Tallahassee, Florida 32301

Attorneys for Florida Power &  
Light Company

By:   
Charles A. Guyton  
John T. Butler