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Sent: Monday, December 29, 2008 1:56 PM
To: Filings@psc.state.fl.us
Cc: Martha Brown
Subject: Docket 080614-EM - JEA's Prehearing Statement
Attachments: JEA Prehearing Statement - GEC.pdf

Electronic Filing

a. Person responsible for this electronic filing:

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b. Docket No. 080614-EM

In re: Petition to Determine Need for Greenland Energy Center Combined Cycle Conversion in Duval County by JEA.

c. Document being filed on behalf of JEA

d. There are a total of 10 pages.

e. The document attached for electronic filing is JEA's Prehearing Statement.

Thank you for your cooperation.

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DOCUMENT NUMBER-DATE

11922 DEC 29 08

12/29/2008

FPSC-COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to determine need for Greenland Energy Center Combined Cycle Conversion in Duval County by JEA. DOCKET NO. 080614-EM
DATED: December 29, 2008

JEA'S PREHEARING STATEMENT

Pursuant to the requirements of the Order Establishing Procedure (Order No. PSC- 08-0744-PCO-EM) and First Order Revising Order Establishing Procedure (Order No. PSC- 08-0669-PCO-EM), JEA hereby submits its Prehearing Statement:

A. **Known Witnesses** - JEA intends to offer the testimony of:

<u>Witness</u>	<u>Proffered By</u>	<u>Subject Matter</u>
Donald C. Gilbert	JEA	Overview of JEA and its existing generation system and power purchase resources; overview of need for GEC combined cycle conversion project; the impact of the GEC combined cycle conversion on the transmission system; JEA's ability to purchase power to cover the one year delay in the GEC combined cycle conversion; and JEA's ability to finance the GEC combined cycle conversion project.
Michael N. Lawson	JEA	Overview of GEC combined cycle conversion project, including schedule and capital and O&M cost estimates.
Mary Guyton-Baker	JEA	JEA's forecast of electrical power demand and energy and forecast methodology
James T. Myers	JEA	Reliability of natural gas supply and transportation for the GEC combined cycle conversion project.
John A. Worley	JEA	JEA's Clean Action Power Plan; JEA's existing renewable energy resources; and potential new renewable resources under evaluation or negotiation.
Richard J. Vento	JEA	Overview of DSM and conservation programs currently offered by JEA; and the portfolio of new DSM programs recently developed by JEA.

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<u>Witness</u>	<u>Proffered By</u>	<u>Subject Matter</u>
Myron R. Rollins	JEA	Summary of Need for Power Application; economic parameters used in economic analyses; overview of the need for the GEC combined cycle conversion project; JEA reliability criteria; JEA's need for capacity; and JEA's RFP for purchase power.
Bradley E. Kushner	JEA	Fuel and emissions allowance price forecasts; supply-side alternatives; methodology and results of economic evaluations

B. Known Exhibits - JEA intends to offer the following exhibits:

<u>Witness</u>	<u>Proffered By</u>	<u>I.D. No.</u>	<u>Description</u>
Donald C. Gilbert	JEA	_____ (DCG-1)	Resumé of Donald C. Gilbert
		_____ (DCG-2)	JEA's Existing Generation Facilities
		_____ (GEC-1)	Sections 3.0 (except 3.9), 10.0 and 19.0
Michael N. Lawson	JEA	_____ (MNL-1)	Resumé of Michael N. Lawson
		_____ (MLN-2)	Summary of Estimated Capital Costs of GEC Combined Cycle Conversion Project
		_____ (MLN-3)	Estimated Performance of GEC Combined Cycle.
		_____ (GEC-1)	Section 9.0
Mary Guyton-Baker	JEA	_____ (MGB-1)	Resumé of Mary Guyton-Baker
		_____ (GEC-1)	Section 5.0

		(MRR-7)	JEA's Annual Capacity Requirements Including Impact of New DSM Program (winter)
		(GEC-1)	Sections 1.0, 2.0, 4.0, 11.0 and 12.0
Bradley E. Kushner	JEA	(BEK-1)	Resumé of Bradley E. Kushner
		(BEK-2R)	Results of Economic Analyses
		(BEK-3)	Results of Additional Economic Analyses
		(GEC-1)	Sections 7.0, 13.0, 14.0, 16.0, 17.0, and 18.0

JEA reserves the right to identify additional exhibits for the purpose of cross-examination or rebuttal.

C. Statement of Basic Position –

JEA: The Commission should grant the petition for determination of need for the Greenland Energy Center (GEC) Combined Cycle Conversion because it is the most cost-effective option available to meet JEA's needs beginning in 2013. There are no cost-effective renewable energy resources or conservation/ demand-side measures available to offset the need for the GEC Combined Cycle Conversion. The GEC Combined Cycle Conversion will provide adequate electricity at a reasonable cost and it will contribute to the reliability and integrity of JEA's system. In addition, JEA will have utilized renewable energy sources and technologies as well as conservation measures to the extent reasonably available. (All JEA Witnesses)

D.-F. Issues and Positions

JEA's positions on the issues identified in this proceeding are as follows:

ISSUE 1: Is there a need for the proposed combined cycle conversion project at the Greenland Energy Center, taking into account the need for

electric system reliability and integrity, as this criterion is used in section 403.519, Florida Statutes?

JEA: Yes. JEA needs the GEC Combined Cycle Conversion to meet the growing capacity requirements and to replace expiring base load power purchases. For planning purposes, JEA has established a 15 percent minimum planned reserve margin criterion. JEA's forecast annual peak demands are projected to occur in the winter; however, the difference between summer and winter capacity of JEA's generating units causes JEA's need for capacity to be governed by the projected summer peak demand. JEA's summer reserve margins are forecast to be below 15 percent throughout the 20-year planning period. The reserve margins include the reduction of JEA's load by JEA's existing curtailable and interruptible capacity, but do not include projected reductions due to JEA's proposed new DSM portfolio which are considered aggressive. The reserve margins also do not include the planned purchases from Southern Company's planned Vogtle Nuclear Units 3 and 4 beginning in 2016 and 2017 respectively. If these purchases are included, JEA's reserve margin would be below the 15 percent criterion in all years except 2016 and 2017 when they would be 15.2 percent and 16.0 percent respectively. In 2013, the year of the GEC Combined Cycle Conversion, JEA's summer reserve margin is projected to be 7.3 percent. After the addition of the GEC Combined Cycle Conversion in 2013, JEA's projected summer reserve margin is projected to be only 13.9 percent and still below JEA's 15 percent criterion. Thus all of the capacity of the GEC Combined Cycle Conversion is needed in the first year of its operation. JEA plans to utilize seasonal purchases and additional generation as necessary to maintain the 15 percent reserve margin criterion.

JEA is, however, implementing a new very aggressive DSM portfolio. With all the projected DSM capacity reductions, JEA's reserve margin dips to 11.8 percent in 2013 without the GEC Combined Cycle Conversion, which is below JEA's 15 percent criterion. Thus even with all the projected capacity reductions from a new aggressive DSM portfolio, the GEC Combined Cycle Conversion is needed to maintain JEA's minimum 15 percent reserve margin criterion.

By providing approximately 207 MW of summer capacity, the GEC Combined Cycle Conversion will help to meet JEA's growing needs and contribute to the reliability and integrity of the JEA electric system. (Gilbert, Guyton-Baker, Rollins).

ISSUE 2: Is there a need for the proposed combined cycle conversion project at the Greenland Energy Center, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in section 403.519, Florida Statutes?

JEA: Yes. JEA evaluated several supply-side technologies, either as alternatives to the GEC Combined Cycle Conversion or as capacity resource options for installation following the proposed conversion. As part of that analysis, JEA evaluated renewable technologies, conventional technologies, and emerging technologies. As JEA's most cost-effective means of meeting JEA's growing needs, the GEC Combined Cycle Conversion will help JEA provide adequate electricity at a reasonable cost. The GEC Combined Cycle Conversion will convert the simple cycle combustion turbines to highly efficient generation. (Lawson, Rollins, Kushner)

ISSUE 3: Is there a need for the proposed combined cycle conversion project at the Greenland Energy Center, taking into account the need for fuel diversity and supply reliability, as this criterion is used in Section 403.519, Florida Statutes?

JEA: Yes. JEA's capacity resources consist of a diversified mix of generation ownership and purchase power, including fossil-fuel (natural gas, oil and coal) and renewable resources. Traditionally, JEA has had a relatively high reliance on coal and petroleum coke for its energy needs, although currently natural gas and oil fired capacity resources represent approximately 47 percent of JEA's existing generating capacity. By providing additional efficient natural gas generation, the GEC combined cycle conversion will help maintain JEA's diversified fuel mix insofar as it will offset additional coal resources that will be added to JEA's generation mix with the projected return of Florida Power & Light Company's purchase power portion of coal fired capacity from the St. Johns River Power Park.

There are several new natural gas storage and pipeline projects that should increase the supply of natural gas to the Southeast region. Moreover, the SeaCoast pipeline that will serve Greenland Energy Center will receive natural gas from both the Southern Natural Gas (SNG) and Florida Gas Transmission Company (FGT) systems. Greenland Energy Center will also utilize ultra low sulfur diesel for backup. For these reasons, the Greenland Energy Center should have a reliable fuel supply and the Greenland Energy Center will increase the fuel diversity of JEA's system. (Gilbert, Myers, Rollins)

ISSUE 4: Are there any renewable energy resources or conservation measures taken by or reasonably available to JEA which might mitigate the need for the proposed combined cycle conversion project at the Greenland Energy Center?

JEA: No. JEA offers a variety of conservation and DSM programs to their consumers. Additionally, JEA is implementing an aggressive new DSM portfolio which is projected to result in a summer demand reduction of 147.5 MW by 2013. The projected demand and energy savings associated with the new DSM portfolio will not eliminate the need for the GEC Combined Cycle Conversion for the summer of 2013. However, the new DSM portfolio will help mitigate the additional need for capacity due to the one year delay of the GEC Combined Cycle Conversion until June 1, 2013. The GEC Combined Cycle Conversion remains the most cost-effective alternative available to provide the additional capacity necessary for JEA's system including the new DSM portfolio. Moreover, even with the projected reduction in summer peak demand, JEA's reserve margin is projected to be below the 15 percent criterion by 2013 when the GEC Combined Cycle Conversion goes into service. As such there are no conservation measures taken by or reasonably available to JEA which would mitigate the need for the proposed GEC Combined Cycle Conversion.

JEA has utilized renewable energy sources and technologies, as well as conservation measures, to the extent reasonably available. JEA's generating mix already includes reasonably available renewable resources. In addition, JEA has issued several RFPs for renewable (including solar and wind energy) resources since 2004. Based on JEA's evaluation, only two of the bids from the RFP's were cost-effective. One was for a 9.6 MW landfill gas project which JEA entered into a contract for and the project went into commercial operation in December 2008. The other project was a proposed 13 MW yard waste project utilizing the City of Jacksonville's yard waste. The project negotiated with the City of Jacksonville for several years for the yard waste and never consummated a contract for the yard waste. As a result, JEA terminated negotiations in 2007. In 2008, JEA conducted an RFP specifically for solar and wind generation. Although none of the bids were cost-effective, JEA is negotiating with the lowest cost bidder for a 12.3 MW photovoltaic project. JEA is also actively evaluating a self build biomass project either as a stand alone unit or co-firing in Northside 1 or 2. In addition, JEA is also evaluating a competing stand alone 50 MW unsolicited proposal for a biomass project. However, JEA's ultimate decision whether or not to utilize the additional solar and biomass resources at the attendant higher cost will depend on the ability to reach acceptable contractual terms, as well as the resolution of numerous regulatory issues. Although JEA has

not made a final decision on the potential solar and biomass projects, they have been included in a scenario (the 12.3 MW solar photovoltaic project and the 35 MW self build stand alone biomass project) of the alternative resource plans examined in the economic analyses. Those analyses demonstrate that there would still be a need for the GEC Combined Cycle Conversion capacity and the GEC Combined Cycle Conversion would still be the most cost-effective alternative for meeting JEA's capacity needs even if JEA were to conduct both projects. As compared to the reference case, the modeling scenarios with the solar and biomass alternatives would increase total system costs, JEA will report on the status of the potential solar and biomass projects in its annual ten year site plan.
(Vento, Kushner, Worley)

ISSUE 5: Is the proposed GEC Combined Cycle Conversion the most cost-effective alternative available, as this criterion is used in Section 403.519, Florida Statutes?

JEA: Yes. The GEC Combined Cycle Conversion provides the most cost-effective solution to satisfy JEA's forecast capacity requirements. Although JEA, a municipal utility, is not subject to the Commission's "Bid Rule," JEA issued a competitive RFP for purchase power options in 2007, as well as numerous RFPs for renewable resources, including a 2007 RFP for renewable energy generation and a 2008 RFP for solar and wind. None of the bids received from these RFP's were cost-effective. Nevertheless, JEA is negotiating with the lowest cost solar bidder and is evaluating a non-solicited bid for biomass as well as self build biomass projects; however, these projects will not offset the need for the GEC Combined Cycle Conversion and are higher in cost than the GEC Combined Cycle Conversion..

JEA initially planned on a June 1, 2012 commercial operation date for the GEC Combined Cycle Conversion. Based on the results of production cost modeling of multiple economic scenarios, JEA identified the GEC Combined Cycle Conversion as the most cost-effective alternative to meet the JEA's capacity needs. JEA's evaluation included several sensitivity analyses utilizing different fuel costs and potential CO₂ regulatory costs based on estimates developed by the U.S. Department of Energy's Energy Information Agency. All of the analyses demonstrated that the proposed GEC Combined Cycle Conversion with an in-service date of 2012 is JEA's most cost-effective alternative to meet JEA's need for additional capacity.

Due to recent credit market developments, JEA delayed the commercial operation date of the GEC Combined Cycle Conversion until 2013. JEA evaluated potential impacts of higher financing costs with the commercial

operation date of the conversion delayed until June 1, 2013. The results of these analyses showed that GEC Combined Cycle Conversion would produce savings through 2027 of approximately \$19 million to approximately \$22 million over the next lowest cost alternative, as presented in JEA's supplemental testimony.

The analyses indicate that the GEC Combined Cycle Conversion is the most cost-effective alternative available to meet JEA's capacity needs whether the commercial operation date is June 1, 2012 or June 1, 2013.
(Rollins, Kushner)

ISSUE 6: **Based on the resolution of the foregoing issues, should the Commission grant JEA's petition to determine the need for the proposed combined cycle conversion project at the Greenland Energy Center?**

JEA: Yes. The Commission should grant the petition for determination of need for the GEC Combined Cycle Conversion because it is the most cost-effective option available to meet JEA's needs beginning in 2013. There are no cost-effective renewable energy resources or conservation/ demand-side measures available to offset the need. The GEC Combined Cycle Conversion will provide adequate electricity at a reasonable cost and it will contribute to the reliability and integrity of JEA's system. In addition, JEA will have utilized renewable energy sources and technologies as well as conservation measures, to the extent reasonably available. (All JEA witnesses)

ISSUE 7: **Should this docket be closed?**

JEA: Yes. This docket should be closed after expiration of the time for filing an appeal of the Commission's final order addressing the petition for determination of need.

G. **Stipulated Issues**

JEA is not a party to any stipulations at this time.

H. **Pending Motions**

JEA's Motion for Leave to File Supplemental Testimony filed on November 21, 2008.

I. **Requests for Confidentiality**

None.

J. Requirements of Order

JEA believes that this prehearing statement complies with all the requirements of the Order Establishing Procedure.

K. Objections to Qualifications

JEA has no objection to the qualifications of any expert witness in this proceeding.

Respectfully submitted this 29th day of December, 2008.

HOPPING GREEN & SAMS

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing has been served by electronic mail and U.S.

Mail to the following on this 29th day of December, 2008:

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