HOPPING GREEN SAMS & SMITH

PROFESSIONAL ASSOCIATION

ATTORNEYS AND COUNSELORS

123 SOUTH CALHOUN STREET

POST OFFICE BOX 6526

TALLAHASSEE, FLORIDA 32314

(850) 222-7500

FAX (850) 224-8551

FAX (850) 425-3415

www.hgss.com

Writer's Direct Dial No. (850) 425-2313

November 15, 2000

ORIGINAL

ERIC T. OLSEN
GARY V. PERKO
MICHAEL P. PETROVICH
DAVID L. POWELL
JOHN K. POWELL
WILLIAM D. PRESTON
CAROLYN S. RAEPPLE
DOUGLAS S. ROBERTS
D. KENT SAFRIET
GARY P. SAMS
TIMOTHY G. SCHOENWALDER
ROBERT P. SMITH
DAN R. STENGLE
CHERYL G. STUART
W. STEVE SYKES

OF COUNSEL ELIZABETH C. BOWMAN

Blanca Bayó Director, Records and Reporting Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399

Re: JEA Petition to Determine Need for Electrical Power Plant

Dear Ms. Bayó:

JAMES S. ALVES

BRIAN H. BIBEAU

RALPH A. DEMEO

JODY L. FINKLEA WILLIAM H. GREEN

WADE L. HOPPING

LEIGH H. KELLETT

GARY K. HUNTER, JR.

ROBERT A. MANNING FRANK E. MATTHEWS

RICHARD D. MELSON

SHANNON L. NOVEY

ANGELA R. MORRISON

JONATHAN T. JOHNSON

ROCHELLE A. BIRNBAUM RICHARD S. BRIGHTMAN

PETER C. CUNNINGHAM

KEVIN B. COVINGTON

Enclosed for filing on behalf of JEA are the original and fifteen copies of its Petition to Determine Need for Electrical Power Plant, together notebooks containing its "Need for Power Application."

Also enclosed is a diskette with a zip file of the application.

If you have any questions regarding this filing, please call.

Very truly yours,

Rice O. M

Richard D. Melson

RDM/mee Enclosures

cc: Mr. Elias

Mr. Floyd

DOCUMENT NUMBER-DATE

14752 NOV 158

FPSC-RECORDS/REPORTING

RECEIVED & FILED

FPSC-BUREAU OF RECORDS

In Re: Petition of JEA to Determine Need
For Proposed Electrical Power Plant in
Duval County, Florida, Consisting of the
Conversion of Two of the
Brandy Branch Combustion Turbines
Currently Under Construction to a
Combined Cycle Unit

ORIGINAL

Docket No. Dol 703 - E

Docket No. Dol 703 - E

Filed: November 15, 2000

PETITION TO DETERMINE NEED FOR ELECTRICAL POWER PLANT

Comes now Petitioner JEA, by and through its undersigned attorneys, and petitions the FLORIDA PUBLIC SERVICE COMMISSION ("Commission"), pursuant to Section 403.519, Fla.Stat., and Rule 25-22.081, Florida Administrative Code, to determine that there is need for the proposed electrical power plant described herein and to file its report and order making that determination with the Department of Environmental Protection ("DEP") pursuant to Section 403.507 (2)(a), Fla.Stat. In support thereof, JEA states as follows:

1. JEA's full name and business address is:

JEA 21 West Church Street Jacksonville, Florida 32202

2. The name and address of JEA's representatives to receive communications regarding this docket are:

> Richard D. Melson Douglas S. Roberts Hopping Green Sams & Smith, P.A. P.O. Box 6526 Tallahassee, FL 32314

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DOCUMENT NUMBER-DATE

14752 NOV 158

with copies to:

Loree French
Assistant General Counsel
City of Jacksonville Office of General Counsel
117 W. Duval Street
Suite 480
Jacksonville, Florida 32202

and:

Charles Bond Manager, Capacity Planning JEA 21 West Church Street, T-11 Jacksonville, Florida 32202

- 3. JEA is a body corporate and politic created by the laws of the State of Florida and legally existing and engaged in the generation, transmission and distribution of electric power and is a valid applicant under the Florida Electrical Power Plant Siting Act, Sections 403.501-403.518, Fla.Stat.
- 4. JEA's Brandy Branch Generating Station is located near the City of Baldwin in Duval County, Florida. Baldwin is west of Jacksonville on Highway 301 a short distance north of Interstate 10. The plant site is a short distance north of Highway 90 east of Baldwin. The plant currently consists of three natural gas/oil simple cycle combustion turbine electric generating units which are currently under construction. These combustion turbines are General Electric's advanced class models, rated at 173 MW ISO each. The combustion turbines are dual fuel capable and will be operated with natural gas as the primary fuel and No. 2 as the backup fuel. These units were delivered to the Brandy Branch site in late 1999 and early 2000. Construction began in late 1999 and Units 1 and 2 should be in operation in May 2001, and Unit 3 in December 2001.

- 5. In order to increase its electric power generating capability, JEA is proposing to convert two of the Brandy Branch simple cycle units into a combined cycle unit. The Brandy Branch project was designed with future expansion in mind, namely adding a fourth combustion turbine or adding a steam turbine unit to the site. The expansion will occur in the northwest quadrant of the current plant, adjacent to the existing combustion turbines. Adequate space exists for the addition of this equipment.
- 6. This conversion will be accomplished by adding to two of the three combustion turbines, two heat recovery steam generators (HRSGs), and one steam turbine generator. This means one HRSG will be added to each of the two combustion turbines and the steam turbine generator will be shared by the two HRSGs. The conversion will create a 2 x 1 combined cycle with one simple cycle combustion turbine remaining. The ISO rating of the steam turbine is assumed to be 173 MW. The total capacity of the Brandy Branch power plant, including the simple cycle and the combined cycle unit after the conversion into combined cycle, will be 692 MW.
- 7. With conversion to combined cycle, Brandy Branch is subject to the Florida Electrical Power Plant Siting Act, Sections 403.501 to 403.518, Fla.Stat. Pursuant to the Act, and to Commission Rules 25-22.080 through 25-22.081, Florida Administrative Code, promulgated pursuant thereto, the Commission has jurisdiction to determine the need for the proposed electrical power plant, applying the standards set forth in Section 403.519, Florida Statutes.
- 8. As authorized by Rule 25-22.080(1), Florida Administrative Code, JEA has elected to commence this proceeding for determination of need prior to filing the Site

- Certification Application with the DEP, for the conversion of two of the Brandy Branch combustion turbine units to a combined cycle unit.
- 9. Rule 25-22.081, Florida Administrative Code, establishes the information required by the Commission to support this Petition. This information is included in the Need for Power Application Brandy Branch Combined Cycle Conversion ("Need for Power Application") which is attached to this Petition.
- 10. As demonstrated in the Need for Power Application, the conversion to combined cycle is needed for JEA electric system reliability and integrity in 2004 when its reserves would dip below the 15 percent margin without the conversion of Brandy Branch to combined cycle.
- 11. As demonstrated in the Need for Power Application, the conversion of Brandy Branch to combined cycle is the most cost-effective alternative available to JEA. The combined cycle unit will provide adequate electricity at a reasonable cost to JEA and Peninsular Florida.
- 12. As demonstrated in the Need for Power Application, conservation measures were evaluated, but none were found to be cost-effective when compared to the low cost of the Brandy Branch conversion.
- 13. The foregoing information demonstrates that the Brandy Branch conversion to combined cycle merits an affirmative determination of need from the Commission pursuant to Section 403.519, Fla.Stat.

WHEREFORE, JEA respectfully requests that:

- (1) Pursuant to Rule 25-22.080(2), Florida Administrative Code, the Commission set a date for a hearing on this Petition, not more than ninety (90) days after the date of the filing of this Petition;
- (2) The Commission give notice of the commencement of the proceeding as required by Rule 25-22.080(3), Florida Adminstrative Code;
- (3) The Commission submit a preliminary statement of issues to DEP pursuant to Section 403.507(1), Fla.Stat., within 60 days after distribution of the Site Certification Application; and
- (4) The Commission determine that there is need for the conversion of Brandy Branch
 Units 1 and 2 to a combined cycle unit, and file its report, including an order making
 such determination, with the DEP pursuant to Section 403.507(2)(a)2., Fla.Stat.

RESPECTFULLY SUBMITTED this 15th day of November, 2000.

HOPPING GREEN SAMS & SMITH, P.A.

By: Pre O re

Richard D. Melson Florida Bar No. 201243 Douglas S. Roberts Florida Bar No. 559466 P.O. Box 6526 Tallahassee, Florida 32314 (850) 222-7500

and

Loree French
Assistant General Counsel
City of Jacksonville Office of General Counsel
117 W. Duval Street, Suite 480
Jacksonville, Florida 32202