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COMMISSION
CLERK

September 19, 2006

BY HAND DELIVERY

Blanca Bayó
Director, Office of the Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 060635 - EU
Petition to Determine Need for an Electrical Power Plant in Taylor County by
Florida Municipal Power Agency, JEA, Reedy Creek Improvement District and
City of Tallahassee

Dear Ms. Bayó:

On behalf of Florida Municipal Power Agency, JEA, Reedy Creek Improvement District
and City of Tallahassee, I have enclosed for filing the original and fifteen copies of the
following:

- Petition For Determination of Need For an Electrical Power Plant; *08610-06*
- Need for Power Application Volume A through Volume E; *08611-06, 08613-06, 08614-06, 08615-06, 08616-06*
- CMP • Pre-filed Direct Testimony of Paul Arsuaga;
- COM 5/1 • Pre-filed Direct Testimony of Theodore Breton;
- CTR • Pre-filed Direct Testimony of Gary Brinkworth;
- ECR • Pre-filed Direct Testimony of Steven Fetter;
- ECR • Pre-filed Direct Testimony of Don Gilbert;
- GCL 1 • Pre-filed Direct Testimony of Nicholas Guarriello;
- OPC 1 • Pre-filed Direct Testimony of James Heller;
- RCA • Pre-filed Direct Testimony of Paul Hoornaert;
- RCA • Pre-filed Direct Testimony of Chris Klausner;
- SCR • Pre-filed Direct Testimony of Bradley Kushner;
- SGA • Pre-filed Direct Testimony of Michael Lawson;
- SGA • Pre-filed Direct Testimony of William May;
- SEC 1 • Pre-filed Direct Testimony of Jim Myers;
- OTH • Pre-filed Direct Testimony of Peter Norfolk;
- Pre-filed Direct Testimony of Jonathan Nunes;
- Pre-filed Direct Testimony of Ryan Pletka;

08617-06 ALL TESTIMONIES

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FPSC BUREAU OF RECORDS

08610 SEP 19 06

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FPSC-COMMISSION CLERK

Ms. Blanca Bayó
September 19, 2006
Page 2

- Pre-filed Direct Testimony of Matthew Preston; and
- Pre-filed Direct Testimony of Myron Rollins

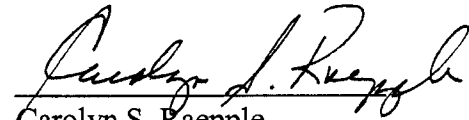
I also have enclosed a CD containing the Petition and Testimony in Word format.

Please stamp and return the enclosed extra copy of this filing. If you have any questions regarding this filing, please call either of us at 222-7500.

Very truly yours,

HOPPING GREEN & SAMS, PA.

By:


Carolyn S. Raeppe
Gary V. Perko

CSR/dwg
Enclosures

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**In re: Petition To Determine Need For
an Electrical Power Plant in Taylor County
by Florida Municipal Power Agency, JEA,
Reedy Creek Improvement District and
City of Tallahassee**

Docket No. 060635-EU

Dated: September 19, 2006

**PETITION FOR DETERMINATION OF NEED
FOR AN ELECTRICAL POWER PLANT**

Pursuant to Section 403.519, Florida Statutes, and Rules 25-22.080 and 25-22.081, Florida Administrative Code (“FAC”), Florida Municipal Power Agency (“FMPPA”), JEA, Reedy Creek Improvement District (“RCID”) and the City of Tallahassee (“Tallahassee”) (collectively, the “Participants”) respectfully petition the Florida Public Service Commission (“PSC” or the “Commission”) for an affirmative determination of need for the construction of a new nominal 765 MW (net) supercritical coal-fired power plant in Taylor County, Florida (the “Taylor Energy Center” or “TEC”). In support of this petition, the Participants state:

1. The Taylor Energy Center will be a pulverized coal electric generating power plant with a supercritical boiler design that incorporates state of the art emission controls.
2. The TEC is proposed to be located on approximately 3,000 acres southeast of Perry, Florida, in Taylor County. The site is bordered by U.S. Highway 27 on the north and the Fenholloway River on the west. The proposed in service date for the TEC is May 2012.
3. As authorized by Rule 25-22.080(1), F.A.C., the Participants have elected to commence this proceeding for determination of need for the TEC prior to the filing of a Site Certification Application (SCA) with the Florida Department of Environmental Protection

(DEP). The Participants will file an SCA with DEP under the Florida Electrical Power Plant Siting Act, Sections 403.501-403.518, Florida Statutes ("F.S."), in 2007.

4. Accompanying this Petition is a detailed five-volume Need for Power Application, with appendices, that sets forth the information required by Rule 25-22.081, FAC. That Need for Power Application, with appendices, is hereby incorporated by reference.

5. The Participants will file the pre-filed testimony of eighteen witnesses in support of this Petition and the Need for Power Application.

6. As demonstrated by this Petition, the Need for Power Application and the supporting testimony, TEC will improve electric system reliability and integrity, improve fuel diversity and supply reliability for the Participants and the state of Florida, provide the Participants with base-load generating capacity, provide adequate electricity at a reasonable cost, and serve as the most cost-effective alternative for providing the needed generation capacity to meet the electric power needs of the Participants. There are no reasonably available conservation or demand side management ("DSM") measures that would mitigate the need for TEC.

I. Introduction

7. The agency affected by this Petition is:

Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

8. The Petitioners names, addresses and telephone numbers are:

Florida Municipal Power Agency
8553 Commodity Circle
Orlando, Florida 32819-9002
407/355-7767

JEA
21 West Church Street
Jacksonville, Florida 32202
904/665-4837

Reedy Creek Improvement District
P. O. Box 10175
Lake Buena Vista, Florida 32830-0175
407/824-4026

City of Tallahassee
400 East Van Buren Street
Tallahassee, Florida 32301
850/891-3066

9. The names, addresses and telephone numbers of the Participants' representatives to receive communications regarding this docket are:

Gary V. Perko, Esq.
Carolyn S. Raeppe, Esq.
Hopping Green & Sams, P.A.
123 South Calhoun Street
Tallahassee, Florida 32301
(850) 222-7500
(850) 224-8551 (facsimile)

II. The Participants

10. FMPA, which will own 38.9 percent of TEC, is a joint action agency comprising 30 municipal electric utilities. FMPA's All-Requirements Project (ARP) consists of 15 of FMPA's 30 members. The FMPA ARP provides all the power requirements for its 15 members on a wholesale basis. FMPA is an "electric utility" as defined in Section 403.503(14) and is an "applicant," as defined in Section 403.503(4), for purposes of Section 403.519, Florida Statutes. As more fully described in the Need for Power Application:

- a. FMPA and its ARP members are "primarily affected utilities" within the meaning of Rule 25-22.081, FAC.
- b. ARP members, both with and without their own generating capacity, are required to purchase all their capacity and energy from the ARP with the exception of excluded resources that are the members' ownership share of Crystal River 3 and St. Lucie 2. ARP members with their own generating capacity are required to sell the electric capacity and energy of their generating resources to FMPA. In exchange for the sale of their electric

capacity and energy, the generating members receive capacity and energy (C&E) payments from ARP members.

- c. FMPA satisfies its 15 ARP members' requirements through jointly-owned and FMPA-owned generating resources, as well as member owned capacity and various power purchase agreements.
- d. The total summer generating capacity presently available to FMPA is approximately 1,753 MW (including 439 MW of purchase power). Most of FMPA's existing generation is fueled with natural gas or oil.
- e. FMPA is a summer peaking system, and expects significant growth during the forecast period. The firm summer peak demand is projected to increase from 1,467 MW in 2006 to 1,909 MW in 2024.
- f. ARP members' transmission lines are interconnected with transmission facilities owned by Florida Power & Light Company (FPL), Progress Energy Florida (PEF), Orlando Utilities Commission (OUC), JEA, Seminole Electric Cooperative, Florida Keys Electric Cooperative Association (FKEC), and Tampa Electric Company (TECO). Capacity and energy (C&E) resources for the ARP are transmitted to the ARP members utilizing the transmission systems of FPL, PEF, TECO, and OUC. C&E resources for the Cities of Jacksonville Beach, Green Cove Springs, Clewiston, Fort Pierce, Key West, Lake Worth, Starke, and Vero Beach are delivered by FPL's transmission system. C&E resources for the Cities of Ocala, Leesburg, Bushnell, Newberry, and Havana are delivered by the PEF transmission system. C&E resources for Kissimmee Utility Authority are delivered by the transmission

systems of PEF and OUC. C&E resources for the City of Fort Meade are delivered by the PEF and TECO transmission systems.

- g. The substantial interests of FMPA and its ARP Members will be affected by the Commission's decision on this Petition for Determination of Need. An affirmative determination of need by the Commission for the Taylor Energy Center is required to avoid adverse impacts on FMPA's system reliability, FMPA's cost of generating electricity, and the fuel diversity of FMPA's generation.

11. JEA, which will own 31.5 percent of TEC, is a retail supplier in Jacksonville, Florida, and parts of three (3) adjacent counties. JEA's approximately 390,000 customers make it the eighth largest municipally-owned electric utility in the United States in terms of number of customers. JEA's service area covers all of Duval County and portions of Clay and St. Johns County (approximately 900 square miles). As more fully described in the Need for Power Application:

- a. JEA is a "primarily affected utility" within the meaning of Rule 25-22.081, FAC.
- b. JEA serves its retail load with owned resources, jointly-owned resources, and power purchase agreements, summarized more fully in the Need for Power Application.
- c. The total summer net capability of JEA is approximately 3,473 MW. The total winter net capability of JEA is approximately 3,661 MW.

- d. JEA is projected to be a winter peaking system, and expects significant growth during the forecast period. The firm winter peak demand is projected to increase from 2,831 MW in 2006 to 4,630 MW in 2024.
- e. The JEA transmission system consists of 727 circuit-miles of bulk power transmission facilities operating at four voltage levels: 69 kV, 138 kV, 230 kV, and 500 kV. This transmission system provides JEA with (1) a first contingency import entitlement over the Florida interconnect to the Georgia Integrated Transmission System of 1,228 MW; (2) a 230 kV and 138 kV backbone around JEA's service territory; and (3) a 69 kV transmission system emanating from JEA's urban core load center to the northwest, northeast, east and southwest service areas.
- f. The substantial interests of JEA will be affected by the Commission's decision on this Petition for Determination of Need. An affirmative determination of need by the Commission for the Taylor Energy Center is required to avoid adverse impacts on JEA's system reliability and JEA's cost of generating electricity.

12. RCID, which will own 9.3 percent of TEC, is a public corporation of the State of Florida and is located in Orange and Osceola Counties, about 15 miles southwest of the City of Orlando. RCID encompasses approximately 25,000 acres. RCID's primary customer is the Walt Disney World Resort Complex, which represents approximately 85 percent of RCID's load. The remaining 15 percent is primarily commercial customers consisting of hotels and service businesses and approximately ten residential customers. As more fully described in the Need for Power Application:

- a. RCID is a “primarily affected utility” within the meaning of Rule 25-22.081, FAC.
- b. RCID owns, operates, and maintains facilities associated with the electric generation and distribution of power solely within RCID.
- c. RCID’s current net generating capacity totals 60 MW, which is primarily gas-fired. In addition to its own generating capacity, RCID purchases the remaining portion of its electric system requirements from other suppliers.
- d. RCID is a summer peaking system. RCID’s net summer peak demand is projected to grow from 191 MW in 2006 to 213 MW in 2025.
- e. RCID’s transmission system has four ties to the local electric transmission network operated at a nominal voltage of 69 kV. RCID’s distribution system is operated in a closed-loop configuration with 90 distribution feeders routed from power substations across a complex network.
- f. The substantial interests of RCID will be affected by the Commission’s decision on this Petition for Determination of Need. An affirmative determination of need by the Commission for the TEC is required to avoid adverse impacts on RCID’s system reliability, RCID’s cost of generating electricity and the fuel diversity of RCID’s generating capacity.

13. The City of Tallahassee, which will own 20.3 percent of TEC, presently supplies electric power and energy to approximately 108,000 customers in a service area consisting of approximately 221 square miles. As described more fully in the Need for Power Application:

- a. The City is a “primarily affected utility” within the meaning of Rule 25-22.081, FAC.

- b. The City serves its customer's electricity needs with City-owned generating facilities and purchase power agreements.
- c. Presently, the City's current generating facilities, which are primarily fired by natural gas and oil, have a total summer net capacity of 746 MW.
- d. The City is a summer peaking system, and expects consistent growth throughout the forecast period. The firm summer peak demand is projected to increase from 609 MW in 2006 to 793 MW in 2025.
- e. The City of Tallahassee's transmission facilities include approximately 185 circuit miles of transmission lines operating at voltages of 230 kV and 115 kV. The City is interconnected with PEF at five locations on its system and with Georgia Power Company (a subsidiary of Southern Company) at one location.
- f. The City of Tallahassee's substantial interests will be affected by the Commission's decision on this Petition for Determination of Need. An affirmative determination of need by the Commission for the TEC is required to avoid adverse impacts on the City's system reliability, the City's cost of generating electricity and the fuel diversity of the City's generating capacity.

III. The Proposed Taylor Energy Center

14. The TEC is proposed to be a 765 MW (net) supercritical pulverized coal unit capable of firing a blend of pulverized coal and up to 30 percent petroleum coke (petcoke). Pulverized coal units have the advantages of utilizing a proven technology with a very high reliability level, the ability to utilize large domestic coal reserves as well as international sources

of solid fuel, and being relatively easy to operate and maintain. The Participants are developing the proposed TEC to realize the benefits associated with the economies of scale inherent in constructing and operating such a large power plant. Since pulverized coal units can be sized very large, the economies of scale can result in low busbar costs.

15. The TEC will include one boiler, one steam turbine generator with efficient steam cycle, a cooling system, water and wastewater treatment systems, material handling systems, air quality control systems, electrical interconnections, and other balance-of-plant systems. TEC will consist of the following core technologies:

- a. 765 MW (net) supercritical coal fired boiler.
- b. Zero liquid discharge (ZLD) facility.
- c. Reverse air baghouse.
- d. Wet, forced oxidation flue gas desulfurization (FGD) system using limestone reagent.
- e. Wet electrostatic precipitator (WESP).
- f. Selective catalytic reduction (SCR) system.
- g. No. 2 oil fired auxiliary boiler and emergency generator.

Additional details of the TEC's design and operating parameters are contained in the Need for Power Application

16. TEC will have the best available control technologies for air quality control systems, including the following:

- SCR to limit nitrogen oxide (NO_x) emissions from the plant.
- A reverse air fabric filter baghouse to limit filterable PM₁₀ particulate emissions.
- A single-tower wet FGD absorption system to remove approximately 97 percent of sulfur dioxide (SO₂) from the flue gas stream.
- A WESP to collect particulate, hazardous air pollutants in particulate form, and acid mists.

Mercury (Hg) emissions will also be controlled appropriately, as determined through the certification process.

17. TEC will be capable of using a wide variety of coals, as well as a blend of coal and up to approximately 30 percent petroleum coke (petcoke). On an annual basis, the quantity of solid fuel used at TEC will be in the range of approximately 2.1 to 2.8 million tons, depending on the unit's annual capacity factor and the source of fuel. As described in the Need for Power Application, the solid fuel can be sourced from multiple locations with alternative transportation options, thus increasing the overall reliability of the fuel supply to TEC. Startup fuel for TEC will be ultra-low sulfur diesel (ULSD).

18. TEC's estimated total capital cost is \$1,713,399,000 (2012 dollars). This cost estimate is based on a multiple engineer, procure, and construct (EPC) approach, with multiple contracts for the turbine island, boiler island, back-end pollution control island, yard material handling, and other balance-of-plant contracts.

19. Construction of TEC will encompass an approximate 4-year period. Consequently, construction is anticipated to commence in 2008 to achieve the planned commercial operation date of May 2012.

IV. Participants' Need for the Taylor Energy Center

A. FMPA

20. FMPA uses a 15 percent reserve margin in the winter season and an 18 percent reserve margin in the summer season. As more fully described in the Need for Power Application, in the summer of 2011, FMPA's reserve margin is projected to decrease to 13.9 percent, or 59 MW below the required capacity, with an additional 230 MW is needed to maintain an 18 percent reserve margin by the summer season of 2012.

21. When TEC is operating under average ambient conditions, FMPA's share of the TEC output will be 297.8 MW at full load. TEC will provide generating capacity to satisfy FMPA's capacity shortfall.

B. JEA

22. JEA uses a minimum 15 percent reserve margin for both the summer and winter seasons.¹ As more fully described in the Need for Power Application, JEA's projections indicate that JEA's capacity will fall below its required 15 percent reserve margin during the winter of 2011/12. At that time, JEA's reserve margin is projected to fall to 13.0 percent or 67 MW short of the 15 percent required reserves. The deficit continues to increase in the winter of

¹ JEA plans to maintain the 15 percent reserve margin only for firm load obligations. Interruptible and curtailable load is not considered in the 15 percent reserve margin.

2012/13, when the margin is projected to be 9.7 percent or 182 MW short of the 15 percent required reserve margin.

23. When TEC is operating under average ambient conditions, JEA's share of the TEC output will be 241.1 MW without consideration of transmission losses, and 230.9 MW including transmission losses, at full load. TEC will provide generating capacity to satisfy JEA's capacity shortfall.

C. REEDY CREEK IMPROVEMENT DISTRICT

24. RCID uses a 15 percent reserve margin for both the summer and winter seasons. As more fully described in the Need for Power Application, RCID is expected to encounter a capacity shortfall in 2011, at which time approximately 134 MW of additional capacity will be required to maintain a 15 percent reserve margin. By 2025, RCID's need for additional capacity increases to approximately 185 MW.

25. When TEC is operating under average ambient conditions, RCID's share of the TEC output will be 71.2 MW without consideration of transmission losses, and 69.7 MW including transmission losses, at full load. TEC will provide some, but not all, of the additional generating capacity needed to satisfy RCID's capacity shortfall.

D. CITY OF TALLAHASSEE

26. The City uses a 17 percent reserve margin for the summer and winter seasons. As described more fully in the Need for Power Application, the City is expected to encounter a capacity shortfall in the summer of 2011, at which time approximately 22 MW of additional

capacity will be required. The need for additional summer capacity increases to approximately 294 MW by 2025.

27. When TEC is operating under average ambient conditions, the City's share of the TEC output will be 155.4 MW without consideration of transmission losses, and 152.1 MW including transmission losses, at full load. TEC will provide generating capacity to satisfy the City's capacity shortfall.

Strategic and Other Advantages

28. In addition to cost-effectively meeting the Participants' capacity needs, there were several strategic considerations and advantages associated with the TEC project. As more fully set forth in the Need for Power Application:

- a. TEC will provide an increase in fuel diversity for the Participants' systems and Florida as a whole. TEC will not only provide additional solid fuel capacity for the Participants and Florida, but it will also provide further fuel diversification through the capability to source coal and petcoke from numerous different regions which will help mitigate exposure to fuel price increases.
- b. Onsite storage capacity will exist at TEC for coal and petroleum coke inventory for up to approximately 90 days of operation, reducing the impact of temporary fuel supply disruptions that can occur in all fuel markets either due to disruptions at the supply source or disruptions in its transportation.

- c. Additional low cost, base load energy from TEC will help stabilize electric rates for consumers and businesses. Electric rate stability will be beneficial in long-term planning, and should also help facilitate more stable growth within the economy.
- d. The total cost savings and benefits of TEC are understated because the economic analyses of the TEC evaluated the economic benefits of the first 23 years of operation. The benefits of TEC's expected actual service life of 35 to 50 years or more are expected to be realized by the Participants.
- e. The use of a supercritical pulverized coal boiler, as a demonstrated technology, minimizes risk to the Participants' customers and allows the Participants to achieve economies of scale inherent in larger generating units. Moreover, demonstrated technology is generally more favored by financing institutions and bond investors.
- f. As a result of the planned pollution control measures to be implemented on TEC, the proposed TEC project is designed to have lower emissions of NO_x, SO₂, and Hg than other coal fired power plants currently in operation.
- g. TEC will provide geographic diversity because it will be constructed on a greenfield site. The greenfield site provides the Participants with additional base load generation without increasing the concentration of its generation resources at one location. This diversity should increase reliability and availability of generating resources, particularly in the event

a hurricane or other extreme condition causes forced outages in a localized area.

V. Supply Side Alternatives Analysis

29. As more fully presented in the Need for Power Application, the Participants considered numerous supply side alternative technologies, either as alternatives to TEC or as capacity resource options for installation following TEC, including renewable technologies, conventional technologies, emerging technologies, advanced technologies, energy storage technologies, and distributed generation technologies. Renewable technologies considered included solid biomass (direct-fired, co-firing, and integrated gasification combined cycle [IGCC]), biogas (anaerobic digestion and landfill gas), waste-to-energy (WTE) (mass burn and refuse derived fuel [RDF]), wind (onshore and offshore), solar (solar thermal and solar photovoltaic), geothermal, hydroelectric, and ocean energy (ocean thermal energy conversion, wave, and tidal). The conventional technologies considered include simple cycle combustion turbines, combined-cycle configurations, and circulating fluidized bed (CFB) units. The emerging technologies include an IGCC unit, a new simple cycle combustion turbine (GE LMS100), and nuclear generation. The advanced technologies considered include advanced combustion turbines, fuel cell, and coal. The energy storage technologies considered include pumped hydroelectric energy storage, battery storage, and compressed air energy storage. Distributed generation technologies considered include reciprocating engines and microturbines. Many of these alternatives were screened out based on their feasibility, levelized cost, and overall reliability to meet each Participant's capacity and energy needs.

30. The renewable technologies of co-fired biomass and anaerobic digestion were considered separately for each Participant.

- a. JEA could potentially co-fire biomass in its existing Northside Units 1 and 2. This technology was not evaluated by JEA as a supply-side alternative, however, because co-firing at the Northside units would not add any additional capacity to JEA's system, and therefore would not mitigate JEA's need for capacity. FMPA, the City of Tallahassee and RCID do not have solely-owned existing solid fuel fired units in their generating systems. Since it is not currently possible for these Participants to co-fire biomass in any of their existing units, biomass co-firing was not considered in their detailed economic analyses of supply-side alternatives.
- b. The levelized cost of the anaerobic digester is competitive with conventional technologies at a 90 percent capacity factor; however, the capacity of the digester considered is only 85 kW. Even if many of these facilities were available, they could not provide enough capacity to mitigate any Participant's need for capacity. Therefore, anaerobic digestion was not considered in the detailed economic analyses for FMPA, JEA, the City of Tallahassee, or RCID.

31. The conventional and emerging technologies evaluated for each of the participants included combined cycle, IGCC, CFB and, with the exception of RCID, simple cycle technologies. Nuclear alternatives were not considered in the economic evaluations by any of the Participants for a number of reasons. First, it is assumed that the nuclear alternatives would not be available for commercial operation for at least 15 years due to the time frame for project development, licensing, and construction. Thus, the first year that the nuclear alternative would be assumed to be available is 2021. Second, the size of a nuclear unit is such that it would

need to be primarily developed and managed by an entity significantly larger than the Participants, even as an aggregate. Therefore, the Participants would have no control over the schedule for the project. Finally, while the capital costs for the nuclear alternatives appear very attractive, they are based primarily on vendor estimates. No new domestic nuclear units have been started in more than 25 years. While it may be possible to achieve the estimated costs, they represent a tremendous reduction from the costs of the most recently constructed U.S. nuclear unit.

32. Advanced technologies were screened by development status and feasibility. The advanced combustion turbine, fuel cell, and coal technologies are still considered developmental stage technologies. Due to the early developmental stages of these technologies and the uncertainty relating to reliability and cost, these advanced technologies were not considered for further evaluation by any of the Participants.

33. Each of the identified energy storage technologies is considered commercially proven. However, each has a much higher average levelized cost than the conventional alternatives. In addition, because these technologies rely on storing energy during off-peak periods, they are limited to only peaking applications and, therefore, have lower availability than other conventional alternatives. As a result, no energy storage technologies were considered for further evaluation by any of the Participants.

34. The distributed generation technologies considered, reciprocating engines and microturbines, are typically used for small demand applications. Reciprocating engines are considered proven commercially, while microturbines are in early commercial deployment.

However, since these technologies have a significantly higher average cost than the conventional alternatives, neither was considered for further evaluation by any of the Participants.

35. On November 28, 2005, the Participants issued a Request for Power Supply Proposals (RFP) which is presented in Appendix A.1 of the Need for Power Application. The RFP served as an invitation for qualified companies to submit proposals for the supply of capacity and energy to meet a portion of the projected power requirements of the Participants beginning on June 1, 2012, and continuing over a period of at least 10 years. The RFP requested a minimum of 100 MW up to a maximum of 750 MW to be allocated among the Participants, and required that capacity and energy proposed be delivered into each Participant's system on a firm, non-recallable basis. Two bids were received, both from Southern Power Company (Southern). The first proposal was for a 797 MW supercritical pulverized coal unit to be constructed at the same site proposed for the Taylor Energy Center. The second proposal was for a natural gas fueled, 784 MW 2x1 501 G combined cycle unit. This unit was proposed to be constructed in St. Lucie County, Florida. Both proposals were for a 20-year term beginning June 1, 2012. R.W. Beck, Inc. (Beck), who was retained to evaluate the bids, prepared a busbar screening analysis for three alternatives - the two proposals that were submitted by Southern and the Participants' self build option (TEC). The busbar analysis was undertaken in order to project annual power costs (in \$/MWh) under a base set of assumptions as well as several sensitivity scenarios that reflected higher and lower than expected fuel prices, environmental, capital, and non-fuel operations and maintenance expenses. Beck determined that Southern's proposed coal plant ranged from 15 to 35 percent more expensive than TEC over a range of evaluation scenarios, and that Southern's gas-fired combined cycle plant ranged from 31 to 53 percent more expensive than TEC over the same range of evaluation scenarios. Based on Beck's evaluation,

the Participants notified Southern that the proposals were not economically competitive and would not be pursued further.

36. The Participants' RFP, together with their separate economic analyses presented in the Need for Power Application demonstrate the TEC is the most cost-effective supply side resource to meet the base load power supply needs of each of the Participants.

VI. The Participants' Analysis of Non-Generating Alternatives

37. FMPA, RCID, and the City of Tallahassee are not subject to the Florida Energy Efficiency and Conservation Act ("FEECA"). JEA is subject to FEECA and the Commission set JEA's conservation goals to zero during the 2004 Conservation Goals Hearing.

38. Nevertheless, the JEA, the City of Tallahassee, and members of FMPA offer a variety of conservation and DSM programs to their consumers. RCID and its primary customer, the Walt Disney World Resort Complex, also implement substantial DMS programs. Summaries of the Participants' conservation and DSM programs are presented in Section 7 of Volumes B, C, D and E of the Need for Power Application.

39. The impact of the Participants' existing conservation and DSM programs are reflected in their individual load forecasts as set forth in Section 3 of Volumes B, C, D and E of the Need for Power Application.

40. As more fully described in Section 7 of Volumes B, C, D and E of the Need for Power Application, of the four Participants, only the City of Tallahassee has available to it enough incremental, reasonably achievable and cost-effective conservation or DSM to meet its identified need for additional capacity. Considering the City of Tallahassee's available

conservation and DSM defers the City of Tallahassee's need for capacity until 2016.

Nevertheless, the installation of TEC in 2012 by the City of Tallahassee is the City's least cost alternative.

VII. Adverse Consequences If TEC Is Not Timely Built

41. Economic Consequences. If the commercial operation of TEC is delayed by one year to May 1, 2013, the Participants will not be able to realize the economic benefit of the low cost, base load energy from TEC. The cumulative present worth cost (CPWC) of the Participants' alternative plans with TEC coming on line in 2013 is approximately \$69.9 million higher than the base case plan with TEC in 2012. For each of the Participants, however, the CPWC of the plan with TEC delayed one year is still substantially lower than the lowest cost plan without TEC, as explained more fully in Section 9 of Volumes B, C D and E of the Need for Power Application.

42. Reliability Consequences.

- a. If TEC is delayed and no additional generating capacity is installed to meet the forecast capacity requirements of FMPA, JEA and the City of Tallahassee by 2012, these Participant's reserve margins will fall below their reserve criteria. Operation of these Participant's systems below their reserve margin criteria will increase the probability that these Participants will not be able to serve their retail customers and will expose these Participant's retail customers to potentially high purchase power costs.
- b. While RCID would be able to maintain its 15 percent reserve margin through its existing purchase power agreement with TECO after the

addition of a combined cycle in 2011, if TEC were delayed a year, RCID's continued heavy reliance on natural gas-fired generating units would increase the probability that RCID would not be able to satisfy its demand and energy requirements in the event of natural gas supply disruptions. RCID's customers would also likely be exposed to potentially high energy costs from emergency purchases if TEC is not available in the event of natural gas supply disruption.

- c. For all Participants, a delay in TEC would eliminate the geographic diversity to be realized with TEC being constructed on a greenfield site. The greenfield site provides the Participants with additional base load generation without increasing the concentration of their generation resources at existing locations.

43. Adverse Impact on the Participants' and the State's Fuel Diversity. As described more fully in Section 8 of Volumes B, C, D and E of the Need for Power Application, if TEC is not completed by 2012, the Participants and the State will not realize the fuel diversity, both in terms of fuel type and fuel source, offered by TEC. Any delay in TEC will result in the Participants and the State failing to have access to the low-cost baseload energy from TEC that will help the Participants and Florida reduce their dependence on any one fuel for their generating fleet.

44. Adverse Economic Impact on Taylor County. The construction of TEC will add up to approximately 1,500 construction positions through 2012. Once in operation, TEC will have an estimated staff of 149 employees with annual payroll of \$11.36 million in Taylor

County, Florida. There will be secondary and tertiary economic benefits in and around Taylor County with the addition of these positions. In addition, the Participants will make a contribution to the community of Taylor County in the amount of \$20 million in the initial year of construction, and an annual community contribution coinciding with commercial operation of TEC estimated to be \$2.5 million. All these significant economic benefits to Taylor County will be lost if TEC is not built as proposed.

VIII. Disputed Issues of Material Fact

45. At the time of this Petition, the Participants do not know whether there will be any disputed issues of material fact.

46. In any event, the Participants intend to prove in this proceeding:

- a. That TEC is needed to maintain electric system reliability and integrity and to provide adequate electricity at a reasonable cost,
- b. That TEC will provide for fuel diversity and supply reliability,
- c. That TEC is the most cost-effective alternative available for meeting the Participants' need for base load capacity in 2012, and
- d. That there is no reasonably available conservation, DSM or other non-generation alternative that would mitigate the need for TEC.

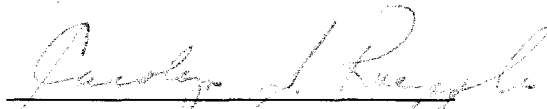
IX. Statutes and Rules That Warrant Requested Relief

47. The Participants are entitled to the determination of need for TEC requested in this Petition pursuant to §403.519, Florida Statutes, and Rule 25-22.080, Florida Administrative Code.

STATEMENT OF RELIEF REQUESTED

WHEREFORE, based upon the foregoing and the more detailed information in the Need for Power Application and pre-filed testimony to be submitted, the Participants request that the Commission grant a favorable determination of need for TEC within the time limitations set forth in Rule 25-22.080, FAC.

Respectfully submitted this 19th day of September, 2006.



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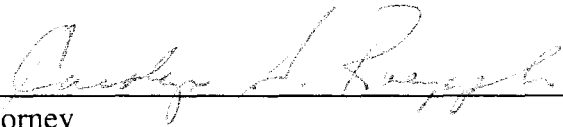
Attorneys for Florida Municipal Power Agency,
JEA, Reedy Creek Improvement District, and
the City of Tallahassee

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Petition for Determination of Need for An Electrical Power Plant was served upon the following by hand delivery (*) or U.S. Mail on this 19th day of September, 2006:

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