### BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Joint petition for determination of need for proposed Stanton Energy Center Combined Cycle Unit A by Orlando Utilities Commission, Kissimmee Utility Authority, Florida Municipal Power Agency, and Southern Company-Florida, LLC.

DOCKET NO. 010142-EM ORDER NO. PSC-01-1103-FOF-EM ISSUED: May 14, 2001

The following Commissioners participated in the disposition of this matter:

E. LEON JACOBS, JR., Chairman
BRAULIO L. BAEZ
MICHAEL A. PALECKI

#### APPEARANCES:

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On behalf of Orlando Utilities Commission, Kissimmee Utility Authority, and Florida Municipal Power Agency.

THOMAS B. TART, ESQUIRE, Orlando Utilities Commission, 500 South Orange Avenue, Orlando, Florida 32802. On behalf of Orlando Utilities Commission.

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On behalf of the Commission Staff.

DOCUMENT NUMBER-DATE

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# FINAL ORDER GRANTING JOINT PETITION TO DETERMINE NEED FOR ELECTRICAL POWER PLANT

#### BY THE COMMISSION:

#### I. CASE BACKGROUND

Pursuant to Section 403.519, Florida Statutes, and Rule 25-22.081, Florida Administrative Code, Orlando Utilities Commission ("OUC"), Kissimmee Utility Authority ("KUA"), Florida Municipal Power Agency ("FMPA"), and Southern Company-Florida LLC ("Southern-FL"), (collectively, "Joint Petitioners") filed a joint petition on January 31, 2001, for determination of need for an electrical power plant to be located at the Curtis H. Stanton Energy Center in Orange County, Florida. The proposed electrical power plant is subject to the Florida Electrical Power Plant Siting Act. Pursuant to Section 403.519, Florida Statutes, this Commission is the sole forum for the determination of need for an electrical power plant subject to the Florida Electrical Power Plant Siting Act.

As proposed, Stanton Energy Center Combined Cycle Unit A ("Stanton A") will be constructed by Southern-FL, a wholly owned subsidiary of Southern Power Company, which is a subsidiary of Southern Company. Stanton A will be a natural gas-fired, combined cycle power plant with 633 megawatts (MW) of net generating capacity and an expected commercial operation date of October 1, 2003. The project will utilize two General Electric 7FA combustion turbines, two heat recovery steam generators, and a steam turbine. Stanton A will have approximately 1.5 days of backup fuel in the form of No. 2 distillate oil.

No person intervened in this docket. On April 23, 2001, we conducted an administrative hearing on the joint petition. Our findings and conclusion are set forth below.

#### II. STANDARD OF REVIEW

Section 403.519, Florida Statutes, sets forth the matters that this Commission must consider in determining the need for an electrical power plant. The statute states, in pertinent part:

In making its determination, the commission shall take into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, and whether the proposed plant is the most cost-effective alternative available. The commission shall also expressly consider the conservation measures taken by or reasonably available to the applicant or its member which might mitigate the need for the proposed plant and other matters within its jurisdiction which it deems relevant.

# III. FINDINGS

A. Joint Petitioners as Proper Applicants for Determination of Need

OUC, as part of the government of the City of Orlando and as an entity engaged in the generation, transmission, and distribution of electric power for consumption by retail customers in Florida, is an "electric utility" as defined by Section 403.503(13), Florida Statutes, and thus, is an "applicant" as defined by Section 403.503(4), Florida Statutes. Therefore, we find that OUC is a proper applicant for a determination of need pursuant to Section 403.519, Florida Statutes.

KUA, as part of the government of the City of Kissimmee and as an entity engaged in the generation, transmission, and distribution of electric power for consumption by retail customers in Florida, is an "electric utility" within the meaning of Section 403.503(13), Florida Statutes, and, thus, is an "applicant" as defined by Section 403.503(4), Florida Statutes. Therefore, we find that KUA is a proper applicant for a determination of need pursuant to Section 403.519, Florida Statutes.

FMPA, as a joint agency formed pursuant to the Florida Interlocal Cooperation Act of 1969, Section 163.01, Florida Statutes, and exercising powers under the Joint Power Act, Chapter 361, part II, Florida Statutes, is an "electric utility" within the meaning of Section 403.503(13), Florida Statutes, and, thus, is an "applicant" as defined by Section 403.503(4), Florida Statutes. Therefore, we find that FMPA is a proper applicant for a

determination of need pursuant to Section 403.519, Florida Statutes.

Further, we find that Southern-FL, as a joint-owner and operator of the proposed electrical power plant, the entire capacity of which is committed to OUC, KUA, and FMPA pursuant to purchased power agreements for a minimum term of ten years, is an appropriate joint applicant pursuant to the Commission's decisions and the Florida Supreme Court's decision in Nassau Power Corp. v. Deason, 641 So.2d 396 (Fla. 1994).

# B. Commitment of Stanton A to Retail Customers

We find that the output of the proposed Stanton Unit A is fully committed for use by Florida retail electric customers in compliance with the Florida Supreme Court's decision in Tampa Electric Co.; Florida Power Corp.; and Florida Power & Light Co., v. Garcia, et al., as the Florida Public Service Commission; Utilities Commission, City of New Smyrna Beach; and Duke Energy New Smyrna Beach Power Co., Ltd., L.L.P., 767 So.2d 428 (Fla. 2000) (revised) (reh'g denied) (cert. denied). The proposed Stanton Unit A will be fully committed to helping OUC, KUA, and FMPA meet their obligations to provide reliable electric service to ratepayers at a reasonable cost.

Stanton A will be a joint development project whereby Southern-FL will own 65 percent of the unit (411 MW), OUC will own 28 percent (177 MW), KUA will own 3.5 percent (22 MW), and FMPA will own 3.5 percent (22 MW). Under individual power purchase agreements ("PPAs"), Southern-FL will sell all of its ownership share of the capacity from Stanton A to OUC, KUA, and FMPA for an initial term of 10 years, with OUC purchasing 80 percent (329 MW), KUA purchasing 10 percent (41 MW), and FMPA purchasing 10 percent (41 MW). Each PPA provides for four automatic five-year extensions of this initial 10-year term, but provides each purchasing utility the option to terminate the agreement at the end of the initial 10year term or at the end of any of the five-year term extensions. Stated differently, OUC, KUA, and FMPA have unilateral options to purchase all of Stanton A's capacity for the estimated 30-year useful life of the unit. OUC, KUA, and FMPA are not precluded from making wholesale sales from their respective ownership shares,

inside and outside the state, when it is in the best interests of these utility's retail ratepayers.

C. Need for Electric System Reliability and Integrity

OUC

We find that Stanton A is needed when taking into account OUC's need for electric system reliability and integrity. OUC utilizes a 15 percent minimum reserve margin criteria. To meet its minimum reserve margin criteria, OUC has a reliability need for capacity beginning in October 2003. The addition of Stanton A, as part of OUC's overall expansion plan, will improve OUC's reliability, resulting in a reserve margin of 18.3 percent in the summer of 2004. Further, the addition of Stanton A will enhance reliability for Peninsular Florida.

We find that the load forecast used by OUC to determine the need for the capacity from Stanton A is reasonable. OUC's sales forecast is developed from structured regression models used for forecasting both monthly electricity sales and customers. A set of regression models are used to forecast hourly demand. We find that OUC's load forecast is based on appropriate forecast models and assumptions. In addition, we find that OUC's projected sales and demand forecasts are reasonable.

We note that the integration of Stanton A into OUC's system will require upgrades to the existing Stanton Energy Center substation. Upgrades to existing offsite circuit breakers will also be required. These upgrades will further enhance OUC's system reliability and integrity.

OUC will be the agent for providing fuel and managing natural gas transportation for the joint project. OUC has signed a contract for firm transportation with Florida Gas Transmission Company ("FGT") to provide 80-85 percent of the normal volumes required for Stanton A. The FGT pipeline is approximately 2.5 miles south of the Stanton Energy Center and intersects OUC's railroad and transmission corridor. A lateral to the site, on existing right-of-way, will be required to connect Stanton A with the FGT pipeline. OUC is continuing negotiation with Gulfstream Natural Gas System, L.L.C., which is seeking to construct a trans-

gulf pipeline, for the remainder of the fuel requirements for Stanton A.

#### KUA

We find that Stanton A is needed when taking into account KUA's need for electric system reliability and integrity. KUA utilizes a 15 percent minimum reserve margin criteria. To meet its minimum reserve margin criteria, KUA has a reliability need of 11 MW in the summer of 2004, and this need is expected to grow. The addition of Stanton A, will provide approximately 63 MW of capacity to KUA. KUA and OUC have agreed that OUC will purchase a portion of KUA's excess entitlements from Stanton A from 2004 through 2006. OUC will initially purchase 40 MW of capacity from KUA then phase down to 10 MW. The addition of Stanton A will improve KUA's reliability, resulting in a reserve margin of 17.8 percent in the summer of 2004, exceeding KUA's minimum reserve margin requirement of 15 percent.

We find that the load forecast used by KUA to determine the need for the capacity from Stanton A is reasonable. KUA prepares detailed long-term customer, energy consumption, and demand forecasts using a number of techniques including econometrics. We find that KUA's load forecast is based on appropriate forecast models and assumptions. In addition, we find that KUA's projected sales and demand forecasts are reasonable.

#### **FMPA**

We find that Stanton A is needed when taking into account FMPA's need for electric system reliability and integrity. FMPA utilizes an 18 percent minimum summer reserve margin, and a 15 percent minimum winter reserve margin criteria. The addition of Stanton A is expected to improve the reliability of FMPA's system. Even with the addition of its approximately 63 MW share of Stanton A, FMPA's reserve margin for the summer of 2004 is projected to be 13.1 percent, with FMPA needing an additional 50 megawatts in the summer of 2004 to achieve its 18% summer reserve margin. The addition of other capacity resources beyond this period is projected allow FMPA to achieve its minimum reserve margin.

We find that the load forecast used by FMPA to determine the need for the capacity from Stanton A is reasonable. FMPA utilizes several techniques in developing its load forecast including econometric modeling, and aggregate econometric modeling of system requirements. We find that FMPA's load forecast is based on appropriate forecast models and assumptions. In addition, we find that FMPA's projected sales and demand forecasts are reasonable.

# D. Need for Adequate Electricity at a Reasonable Cost

As discussed above, Stanton A will allow OUC to meet its 15 percent minimum reserve margin criteria, KUA to meet its 15 percent reserve margin criteria, and FMPA to improve its system reliability. In doing so, Stanton A is expected to provide power at a reasonable cost, as it was selected as the most cost-effective alternative available.

OUC, on behalf of itself, KUA, and FMPA, issued Requests for Proposals ("RFPs") in May 2000 for (1) Power Supply Proposals and (2) Joint Development Proposals. The Power Supply RFP sought proposals to supply up to 750 MW of capacity and energy to OUC, KUA, and FMPA. The Joint Development RFP sought proposals for joint ownership of projects utilizing sites available at Stanton Energy Center and/or KUA's Cane Island site. The responses from both RFPs were evaluated and ranked on a levelized cost per megawatt-hour basis. In addition, Black & Veatch provided cost estimates for a self-build combined cycle unit. Evaluations of the from both RFPs and the self-build responses alternative demonstrated that the joint development proposal from Southern-FL, i.e., the proposed Stanton A, was the most cost-effective alternative, as further discussed below.

The Southern-FL proposal was evaluated further against a number of self-build alternatives on an individual system basis for OUC, KUA, and FMPA. These evaluations showed Stanton A to be the most cost-effective alternative.

Based on the foregoing, we find that Stanton A is needed when taking into account OUC, KUA, and FMPA's needs for adequate electricity at a reasonable cost.

#### E. Cost-Effectiveness

Because OUC, KUA, and FMPA are not investor-owned utilities, they are not subject to this Commission's "bidding rule" contained in Rule 25-22.082, Florida Administrative Code. However, as discussed above, OUC, on behalf of itself, KUA, and FMPA, issued two RFPs as part of its efforts to acquire the most cost-effective resources available.

As stated above, the responses from both RFPs were evaluated and ranked on a levelized cost per megawatt-hour basis. In addition, Black & Veatch provided cost estimates for a self-build combined cycle unit. Evaluations of the responses from both RFPs and the self-build alternative demonstrated that the joint development proposal from Southern-FL, i.e., the proposed Stanton A, was the most cost-effective alternative.

The Southern-FL proposal was evaluated further against a number of self-build alternatives on an individual system basis for OUC, KUA, and FMPA. These evaluations provided the revenue requirements associated with various generation expansion plans. OUC's expansion plan including Stanton A is projected to result in approximately \$6.6 million in cumulative present worth savings over the next best self-build alternative. KUA's expansion plan including Stanton A is projected to result in approximately \$1.62 million in cumulative present worth savings over the next best self-build alternative. FMPA's expansion plan including Stanton A is projected to result in approximately \$38.7 million in cumulative present worth savings over the next best self-build alternative. Thus, these evaluations showed Stanton A to be the most costeffective alternative for each utility.

Stanton A was evaluated under various sensitivities to fuel prices and load forecasts. These sensitivity analyses further demonstrate that Stanton A is the most cost-effective alternative available.

We find that the fuel price forecasts used in the joint petitioners' cost-effectiveness evaluation are reasonable. The joint petitioners used a base case fuel price forecast for natural gas, crude oil, petroleum coke, and coal. The projections from the Department of Energy's "2001 Annual Energy Outlook" were

incorporated into the analysis. We also find that the economic criteria used in the cost-effectiveness evaluation are reasonable. A general inflation rate of 2.5 percent was used as the escalation rate for O&M and capital costs.

Based on the foregoing, we find that Stanton A is the most cost-effective alternative available to meet the needs of OUC, KUA, and FMPA.

# F. Conservation Measures

<u>OUC</u>

We find that there are no additional conservation measures taken by or reasonably available to OUC which might mitigate the need for the proposed power plant. OUC is subject to this Commission's jurisdiction under the Florida Energy Efficiency and Conservation Act ("FEECA"), which is codified at Sections 366.80-366.825 and 403.519, Florida Statutes. Pursuant to FEECA, this Commission adopts and periodically reviews energy conservation goals for OUC and other jurisdictional utilities. In our most recent goal-setting proceeding for OUC, we found that no demandside management ("DSM") measures were cost-effective for OUC and established OUC's numeric conservation goals at zero for the period 2001 through 2010. See, Order No. PSC-00-0587-FOF-EG, issued March 2000, in Docket No. 990722-EG. Nevertheless. in this proceeding OUC evaluated in detail the most cost-effective demandside management measures from FPL's 2000 Demand-Side Management None of the potential measures passed the rate impact measure test using base case and high fuel price sensitivities. OUC, however, offers its customers the following conservation programs: Residential Energy Survey, Residential Heat Residential Weatherization. Low Income Home Energy Fixup, Educational Outreach, and Commercial Energy Survey.

# <u>KUA</u>

We find that there are no additional conservation measures taken by or reasonably available to KUA which might mitigate the need for the proposed power plant. Although, KUA is not subject to our jurisdiction under FEECA, KUA evaluated in detail the most cost-effective DSM measures from FPL's 2000 Demand-Side Management

Plan. Three of these measures are already offered by KUA. None of the next most cost-effective FPL conservation measures passed the rate impact measure test using base case and high fuel price sensitivities. KUA offers the following conservation programs to its customers: Residential Load Management, Residential and Energy Audit, Fix up program, High pressure sodium street lighting/private area lighting conversion, and Elimination of electric strip heating.

## **FMPA**

We find there are no additional conservation measures taken by or reasonably available to FMPA which might mitigate the need for the proposed power plant. Although FMPA is not subject to our jurisdiction under FEECA, FMPA evaluated in detail the most costeffective demand-side management measures from FPL's 2000 Demand-Side Management Plan. None of the potential measures passed the rate impact measure test using base case and high fuel price sensitivities. However, FMPA's members offer the following conservation programs to customers: Residential Energy Audits, High-Pressure Sodium Outdoor Lighting Conservation, Assistance for Commercial/Industrial Audits, Commercial Time-of-Use, Natural Gas Promotion, Fix-Up Program for the Elderly and Handicapped, and Residential Load Management.

# IV. CONCLUSION

Upon consideration of the evidence adduced at hearing and in light of the criteria set forth in Section 403.519, Florida Statutes, we grant the joint petition for a determination of need for Stanton A. This order constitutes our final agency action and report as required by Section 403.507(2)(a)2, Florida Statutes, and as provided for in Section 403.519, Florida Statutes.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the joint petition for determination of need by Orlando Utilities Commission, Kissimmee Utility Authority, Florida Municipal Power Agency, and Southern Company-Florida LLC for Stanton Energy Center Combined Cycle Unit A is granted. It is further

ORDERED that this docket shall be closed.

By ORDER of the Florida Public Service Commission this  $\underline{14th}$  day of  $\underline{May}$ ,  $\underline{2001}$ .

BLANCA S. BAYÓ, Director Division of Records and Reporting

By:

Kay Flynn, Chief Bureau of Records

(SEAL)

WCK

# NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Director, Division of Records and Reporting, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Director,

Division of Records and reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.