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MEMORANDUM

DATE: October 23, 2007

TO: Northeast Florida Regional Planning Council

THRU: Planning and Growth Management Policy Committee

FROM: Ameera Sayeed, Senior Regional Planner

RE: Review of JEA Ten Year Power Plant Site Plan 2007-2016

Introduction

Each year every electric utility in the State of Florida produces a ten year site plan that includes an estimate of future electric power generating needs. The purpose of the ten year site plan is to disclose the general location of proposed power plant sites and facilitate coordinated planning efforts. Pursuant to Section 186, Florida Statutes Council staff reviewed the most recent ten year site plan prepared by the Jacksonville Electric Authority (JEA). The purpose of this report is to summarize JEA's plans for future power generation and provide comments for transmittal to the FPSC.

STATUTORY AUTHORITY

Section 186.801, Florida Statutes, requires that all major generating electric utilities in Florida submit a *Ten-Year Site Plan* to the Florida Public Service Commission (Commission) for review. Each *Ten-Year Site Plan* contains projections of the utility's electric power needs for the next ten years and the general location of proposed power plant sites and major transmission facilities. In accordance with the statute, the Commission performs a preliminary study of each *Ten-Year Site Plan* and must determine whether it is "suitable" or "unsuitable." In conducting its review, the Commission considers the views of appropriate local and state agencies. The Northeast Florida Regional Council reviews electric utility Ten Year Site Plans within the region and submits comments to the Commission for review. The Commission forwards the *Ten-Year Site Plan* review, upon completion, to the Florida Department of Environmental Protection (DEP) for use in subsequent power plant siting proceedings.

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To fulfill the requirements of Section 186.801, Florida Statutes, the Commission has adopted Rules 25-22.070 through 25-22.072, Florida Administrative Code. Electric utilities must file an annual *Ten-Year Site Plan* by April 1. Utilities whose existing generating capacity is below 250 megawatts (MW) are exempt from this requirement unless the utility plans to build a new unit larger than 75 MW within the ten-year planning period. The *Ten-Year Site Plan* review contained herein also fulfills an additional statutory requirement. Section 377.703(e), Florida Statutes, requires the Commission to analyze and provide natural gas and electricity forecasts to the DEP.

PURPOSE

The intent of the *Ten-Year Site Plans* is to give state, regional, and local agencies advance notice of proposed power plants and transmission facilities. However, the *Ten-Year Site Plans* are not a binding plan of action on electric utilities. As such, the Commission's classification of a *Ten-Year Site Plan* as suitable or unsuitable has no binding effect on the utility. Such a classification does not constitute a finding or determination in docketed matters before the Commission. The Commission may address any concerns raised by a utility's *Ten-Year Site Plan* at a public hearing. Because the *Ten-Year Site Plans* are planning documents containing tentative data, they may not contain sufficient information to allow regional planning councils, water management districts, and other review agencies to evaluate site-specific issues within their jurisdictions. Each utility is responsible for providing detailed data, based on in-depth environmental assessments, during Power Plant Siting Act or Transmission Line Siting Act certification proceedings.

Summary of the Plan

The evaluation has revealed that JEA included in their ten year plan the necessary analysis to determine the current plan. Existing JEA's electric supply resources, forecasts of customer energy requirements and peak demands, forecasts of fuel process and availability, and an analysis of alternative for resources which would meet the JEA's future capacity and energy needs were reported in the ten year plan. The JEA forecasts accounted for the system peak demand growth and energy consumption resource plan, in addition to cost considerations, environmental and land use considerations were amply factored into the ten year plan.

JEA consists of three separate entities: The JEA Electric system, the St. Johns River Power Park and the Robert W. Scherer system. The JEA Electric System consists of generating facilities located on three plant sites within the City; the J. Dillon Kennedy

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Generating Station, the Northside Generating Station and the Brandy Branch generating station. These are two dual fired plants, meaning petroleum and coke or coal burning. The St. Johns River Power Park is jointly owned by JEA (80 percent and FP&L (20 percent). These are coal fired units. Although JEA is the majority owner of SJRPP both owners are entitled to 50 percent of the output of SJRPP. The Robert Scherer Unit 4 is a coal fired generating unit with a net output of 846 MW located in Monroe County, Georgia. JEA has a 23.6 percent ownership interest in Unit 4 and proportionate ownership interest in associated common facilities and coal stock pile.

JEA also pursues purchasing power from Southern Company which is also coal powered and will provide capacity and energy per contract through May 31, 2010. Progress Energy Ventures and JEA entered into a power purchase and sale agreement in October 2006 and will go through the 2009/10 winter season. The Energy Authority (TEA) is generally able to acquire capacity when any of the JEA's members such as JEA require additional resources. Cogeneration facilities reduce the demand from JEA's facilities and JEA has customers having Qualifying Facilities located with the JEA service area/territory. Four of these "cogenerators" are Anheiser Busch, Baptist Hospital, Ring Power Landfill and St. Vincent's Hospital.

JEA continues to establish a Clean Power Capacity goal of 7.5 percent clean power capacity by 2015. To support these goals the JEA has solar photovoltaic panels on high schools and other community buildings. JEA also has the Solar Incentive Program to promote solar energy. Other measures taken by JEA include the Residential Net Metering Policy to encourage the use of customer sited solar photovoltaic systems. JEA also has programs that offer indoor and outdoor lighting services to help in designing efficient light systems and retrofits.

The JEA fuel price forecast for St. Johns River Power Park is based on petroleum coke and includes limestone and diesel fuel components. Scherer is based on coal using a blend of 80 percent coke and 20 percent coal. The Brandy Branch facility uses ultra low sulfur diesel as backup fuel. These fuels projection were developed from 2006 to the year 2030. Regression analysis techniques were used along with SAS and Excel to forecast peak demand. The Net Energy Load (NEL) forecast is to increase at an average growth of 2 percent during 2007 through 2016. NEL forecast increases from 14,315 GWh in 2007 to 17,511 GWh in 2016.

JEA is proceeding with the installation of an additional combustion turbine at the Kennedy Generation Station and is scheduled for operating by 2008. JEA is also proceeding in conjunction with other entities to construct and operate a solid fuel fired plant at a site in Taylor County, Florida

Staff Evaluation

Council supports the JEA and the State of Florida efforts to continue to develop new programs to: 1) reduce the reliance on coal and oil as future energy sources; 2) increase conservation activities to offset the need to construct new power plants; and 3) increase the reliance of clean alternative energy systems to produce electricity.

Recommendation

Staff recommends that the Committee and Council approve the draft report and authorize its transmittal to the Florida Public Service Commission.