

## BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of AES Cedar Bay, Inc. )	DOCKET NO. 881472-EQ
and Seminole Kraft Corporation for )	
determination of need for the Cedar )	ORDER NO. 21491
Bay Cogeneration Project. )	
_____ )	ISSUED: 6-30-89

The following Commissioners participated in the disposition of this matter:

MICHAEL McK. WILSON, Chairman  
 THOMAS M. BEARD  
 BETTY EASLEY  
 GERALD L. GUNTER  
 JOHN T. HERNDON

ORDER GRANTING DETERMINATION OF NEED

BY THE COMMISSION:

On November 10, 1988, AES Cedar Bay, Inc. (AES) and Seminole Kraft Corporation (Seminole Kraft) filed a need determination application with the Department of Environmental Regulation (DER) and a petition for determination of need with this Commission pursuant to the provisions of the Florida Electrical Power Plant Siting Act (Siting Act), Sections 403.501-.517, Florida Statutes.

In its petition, AES has requested that it be allowed to build a 225 MW circulating fluidized bed coal qualifying facility (QF) located at an existing industrial site adjacent to and on the property of the Seminole Kraft paper mill in Jacksonville, Florida. All of the electricity produced by this QF will be sold to Florida Power and Light Company (FPL) under the terms of a negotiated agreement. On December 13, 1988, this agreement was submitted to the Commission for approval in Docket No. 881570-EQ.

On January 4, 1989, the Staff filed a motion to implead FPL as an indispensable party in this docket. This motion was denied by the prehearing officer on January 30, 1989, in Order No. 20671. The direct testimony of Gerald J. Gorman, Kerry G. Varkonda, Lawrence A. Stanley, and Dennis W. Bakke was filed on March 13, 1989. The direct testimony of Jeffrey V. Swain and Myron R. Rollins was filed on March 14, 1989 and March 15, 1989, respectively. The direct testimony of Juan E. Enjamio and Joseph C. Collier was filed on March 17, 1989 and March 20, 1989, respectively. All of these witnesses submitted testimony on behalf of AES and Seminole Kraft.

This docket was heard in conjunction with Docket No. 881570-EQ, Florida Power and Light's petition for approval of its cogeneration agreement with AES, on April 24 and 25, 1989 before the full Commission and was subsequently voted on at the agenda conference of June 6, 1989.

In evaluating a petition for determination of need, we are bound by the statutory requirements of Sections 403.507(1)(b) and Section 403.519, Florida Statutes, as well as our rules implementing those sections, Rules 25-22.080-.081, Florida Administrative Code. Section 403.519 was passed in 1980 as part of the Florida Energy Efficiency and Conservation Act

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(FEECA), Sections 366.80-.85, Florida Statutes, and was intended to remedy several problems which had arisen in the implementation of the Siting Act subsequent to its initial passage in 1973.

First, the section was intended to allow need determinations to be initiated at the Commission prior to the filing of a formal application with DER. Second, it codified court rulings that the "sole forum" for the determination of need was the Commission. Third, it lists specific items which "shall" be considered by the Commission in deciding the question of power plant need: "need for electric system reliability and integrity", "need for adequate electricity at a reasonable cost", "whether the proposed plant is the most cost-effective alternative available", "conservation measures . . . which might mitigate the need for the proposed plant" and "other matters within its jurisdiction which it deems relevant."

This language was intended to "flesh-out" the general language of Section 403.507(1)(b) which states, in part:

The Public Service Commission shall prepare a report as to the present and future need for the electrical generating capacity to be supplied by the proposed electrical power plant. The report may include the comments of the commission with respect to any matters within its jurisdiction.

#### Reliability and integrity

The load flow studies performed by FPL for this project indicate that the 225 MW of generation produced by AES when interconnected at Jacksonville Electric Authority's Eastport substation in 1993 can be integrated into the statewide transmission system. The line losses associated with the transmission of this power to FPL's load centers in south Florida will be approximately 14.5 MW or 6.4% of the output of the project at summer peak. This compares with line losses of approximately 47.2 MW or 7.6% of the total output of one of the St. John River Power Park units. In addition, the negotiated agreement between FPL and AES provides a remedy should AES's generation at its site in northeast Florida negatively impact southward transmission flows, or FPL's purchase of less expensive electricity. Based on these facts, we find that FPL's ratepayers are adequately protected from any potential adverse effects on system integrity and reliability resulting from purchases from AES.

#### Adequate electricity at a reasonable cost

Over the term of the negotiated agreement between FPL and AES, the net present value of the stream of revenues associated with the agreement is less than that of the standard offer contract based on the statewide avoided unit, a 1995 coal unit, and less than the net present value of the stream of revenues associated with the units identified in FPL's generation expansion plan as its own avoided units, 1994 combined cycle units.

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AES has negotiated a long-term contract for coal supply, coal transportation and coal waste disposal with Costain. Additionally, bark from the kraft mill will be available to supply a supplemental source of fuel approximately 5% of the time. Further, there are plentiful United States and international reserves of limestone which are acceptable for sulfur dioxide capture. AES intends to enter into a long-term contract for its purchase and has no reason to believe that such contract will not be easily obtained at a reasonable price. Thus we find that this project will provide adequate electricity to FPL and peninsular Florida at a reasonable cost.

#### Cost-effective alternative

The circulating fluidized bed boilers are the first to be constructed in Florida for the production of electricity. This project is a QF pursuant to our rules and AES has negotiated a contract at less than statewide avoided cost for the sale of firm capacity and energy to FPL which falls within the current subscription limit of 500 MW. That being the case, this Commission has already found the proposed QF to be the most cost-effective alternative available.

#### Conservation

In previous QF need determination cases, we have concluded that "cogeneration is a conservation measure." In re: Petition of Hillsborough County for determination of need for a solid waste-fired cogeneration power plant, 83 F.P.S.C. 10:104, 105 (1983); In re: Petition of Pinellas County for determination of need for a solid waste-fired cogeneration power plant, 83 F.P.S.C. 10:106, 107 (1983); In re: Petition by Broward County for determination of need for a solid waste-fired electrical power plant, 85 F.P.S.C. 5:67, 68 (1985); In re: Petition by Broward County for determination of need for a solid waste-fired electrical power plant, 86 F.P.S.C. 2:287, 288 (1986). We have rethought this position. Traditionally, conservation in the electric industry has been thought of in two ways: an increase in fuel efficiency and a reduction in demand. The first, increased fuel efficiency, is a net reduction in the amount of fuel used to provide the same amount of electricity. The second, a reduction in electric demand, often peak-hour demand, results in the deferral of additional plant construction. The legislative intent of FEECA, 366.80-.85, Florida Statutes, to reduce "the growth rates of electric consumption and weather-sensitive peak demand"; to increase "the overall efficiency and cost-effectiveness of electricity and natural gas production and use"; and to conserve "expensive resources, particularly petroleum fuels" reflects this understanding of conservation. Section 366.81, Florida Statutes.

However, as the testimony by Witness Bakke indicates, there is a recognition in the industry that cogeneration does not "conserve" fuel in the traditional sense, it merely utilizes fuel to "deliver a service at the least cost." In some instances the fuel efficiency of a cogeneration unit will be the factor that makes a cogeneration project a cost-effective means of producing power, but that is not necessarily the case. The price of the electricity produced by

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a cogeneration unit could be lower than of comparable noncogeneration units simply because the sales price of the steam produced by the QF and sold to the steam host is high and produces a great deal of profit. That being the case, conservation and other demand-side alternatives as envisioned by FEECA, are not germane to qualifying facility need determinations.

#### Associated facilities

Approximately 1/2 mile of 138 kV transmission line will be required to tie the proposed project into the electric grid at the Jacksonville Electric Authority Eastport substation.

#### Other jurisdictional matters

At hearing and in its brief, AES argued that the Commission should properly consider the following facts in reaching its decision in this need determination: displacement of oil currently used by the paper mill; significant reduction in the emission of pollutants (SO<sub>2</sub>, NO<sub>x</sub>, particulates, TRS) associated with the production of paper products at the paper mill; minimal land use impacts; creation and retention of jobs in the Jacksonville area; introduction into Florida of a "clean coal" technology without direct risk to ratepayers; and reduction of the thermal impact on the St. Johns River. Conversely, the Citizens Group stated at the hearing that the environmental impacts of the project were not all beneficial and questioned the size and type of plant which AES proposes to construct. To the extent that these matters are not discussed above, we find that they are outside the jurisdiction of this Commission as set forth in Sections 403.501-.517 and 403.519, Florida Statutes, and not properly considered in this proceeding.

#### Stipulation

We approve the following stipulation entered into by the parties to this docket:

1. That the 42 MW of electricity produced by the Seminole Kraft recovery boilers and used internally in the paper mill will replace existing capacity and represents no net change in generating capacity;
2. That the original equipment was installed prior to October 1, 1973; and that
3. These facts establish a prima facie need for this segment of the proposed AES Cedar Bay project.

Therefore, it is

ORDERED by the Florida Public Service Commission that the Petition of AES Cedar Bay, Inc. and Seminole Kraft Corporation for Determination of Need for the Cedar Bay Cogeneration Project is hereby granted. It is further

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ORDERED that this order constitutes the final report required by Section 403.507(1)(b), Florida Statutes, the report concluding that a need exists, within the meaning of Section 403.519, Florida Statutes, for the construction of the 225 MW generating facility proposed by AES Cedar Bay, Inc. and the 42 MW recovery boiler by Seminole Kraft Corporation. It is further

ORDERED that a copy of this order be furnished to the Department of Environmental Regulation, as required by Section 403.507(1)(b), Florida Statutes.

By ORDER of the Florida Public Service Commission  
this 30th day of JUNE, 1989.

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STEVE TRIBBLE, Director  
Division of Records and Reporting

( S E A L )

by: Kay Flynn  
Chief, Bureau of Records

SBr