BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of AES Cedar Bay, Inc. and Seminole Kraft Corporation for determination of need for the Cedar Bay Cogeneration Project.	DOCKET NO.	881472-EQ
	ORDER NO.	21061
	ISSUED:	4-17-89

Pursuant to Notice, a Prehearing Conference was held on April 13, 1989, in Tallahassee, Florida, before Chairman Michael McK. Wilson, Prehearing Officer.

APPEARANCES:

FREDERICK M. BRYANT, Esquire, and SUE MICHAELS, Esquire, Moore, Williams, Bryant, Peebles and Gautier, P. A., P. O. Box 1169, Tallahassee, Florida 32302
On behalf of AES Cedar Bay, Inc. and Seminole Kraft Corporation.

P. G. PARA, JAMES L. HARRISON, Esquire and EDWARD L. TANNEN, Esquire, Office of the General Counsel, 1300 City Hall, Jacksonville, Florida 32202
On behalf of the Jacksonville Electric Authority

SUZANNE BROWNLESS, Esquire, Florida Public Service Commission, Division of Legal Services, 101 East Gaines Street, Tallahassee, Florida 32399-0863
On behalf of the Commission Staff.

PRENTICE P. PRUITT, Esquire, Florida Public Service Commission, General Counsel, 101 East Gaines Street, Tallahassee, Florida 32399-0863
Counsel to the Commissioners.

PREHEARING ORDER

Background

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 need determination petition with this Commission pursuant to the provisions of the Florida Electrical Power Plant Siting Act (Siting Act), Sections 403.501-.517, Florida Statutes.

In the 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 contract. On December 13, 1988, this negotiated contract was submitted to the Commission for approval in Docket No. 881570-EQ. This docket is being heard in conjunction with the hearing in this proceeding. Thus, no the Commission has not yet taken any action on this contract.

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 are testifying on behalf of AES and Seminole Kraft.

Use of Prefiled Testimony

All testimony which has been prefiled in this case will be inserted into the record as though read after the witness has taken the stand and affirmed the correctness of the testimony and exhibits, unless there is a sustainable objection. All testimony remains subject to appropriate objections. Each witness will have the opportunity to orally summarize his testimony at the time he or she takes the stand.

Use of Depositions and Interrogatories

If any party desires to use any portion of a deposition or an interrogatory, at the time the party seeks to introduce that deposition or a portion thereof, the request will be subject to proper objections and the appropriate evidentiary rules will govern. The parties will be free to utilize any exhibits requested at the time of the depositions subject to the same conditions.

Order of Witnesses

	Witness	Subject Matter	Issues
Direct			
1.	Dennis W. Bakke	Description of AES, AES Cedar Bay, and other AES facilities; the energy, environmental and economic benefits of AES Cedar Bay Project.	1, 2, 4, 7, 8, 9, 10, 11, 12, 14
2.	Joseph C. Collier	Negotiated contract with FPL.	1, 2, 3, 4, 7, 8, 11, 14
3.	Lawrence A. Stanley	Seminole Kraft Corporation; mill operations and facilities; DER consent order; economic benefits of the project.	1, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14

	Witness	Subject Matter	Issues
Direct			
4.	Gerald J. Gorman	Financial viability of the project, AES, and Seminole Kraft/Stone Container Corporation.	1, 9, 14
5.	Kerry G. Varkonda	Proposed plant's facilities; integration of plant with paper mill.	1, 3, 4, 5, 7, 8, 9, 10, 11, 14
6.	Juan E. Enjamio	Effect of project on statewide electric system.	1
7.	Myron R. Rollins	Need for the project; compliance with the need criteria of statute and Commission rule; compliance with cogeneration pricing rule.	1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 14
8.	Jeffrey V. Swain	Plant site; sale of steam; coal contracts; QF status; need for QF power; negotiated contract terms.	1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14

EXHIBIT LIST

Exhibit Number	Witness	Description
101	Bakke	(DWB-1) AES' corporate values
102	Bakke	(DWB-2) AES' board of directors
103	Bakke	(DWB-3) Historical summary of AES' generating capacity
104	Bakke	(DWB-4) AES plant locations
105	Bakke	(DWB-5) AES cogeneration projects completed, under construction, or under development
106	Bakke	(DWB-6) The Wall Street Journal's tombstones for five major AES cogeneration projects

Exhibit Number	Witness	Description
107	Stanley	(LAS-1) Location of existing Seminole Kraft mill facilities and new facilities
108	Stanley	(LAS-2) Location of existing Seminole Kraft mill facilities and new facilities
109	Stanley	(LAS-3) Flow diagram of new facilities
110	Varkonda	(KGV-1) Typical flow chart for CFB boiler system
111	Varkonda	(KGV-2) Fluidized bed units in operation
112	Varkonda	(KGV-3) History of AES plant operations
113	Varkonda	(KGV-4) Schedule of AES Cedar Bay project
114	Enjamio	(JEE-1) Load flows for 1992 with and without AES Cedar Bay project
115	Rollins	(MRR-1) Capacity needs forecasted in FCG 1986 and 1989 APH studies
116	Rollins	(MRR-2) Comparison of total winter capacity in Peninsular Florida with coincident winter firm peak demand - 1986 APH
117	Rollins	(MRR-3) Comparison of total winter capacity in Peninsular Florida with coincident winter firm peak demand as presented in 1989 APH 20-year plan

Exhibit Number	Witness	Description
118	Rollins	(MRR-4) Oil backout assumptions
119	Rollins	(MRR-5) Feasible generating alternatives evaluated in the FCG 1986 APH studies
120	Rollins	(MRR-6) Feasible generating alternatives evaluated in the 1989 APH studies
121	Rollins	(MRR-7) Screening curves from the 1986 APH studies with cost for capacity and energy from Cedar Bay project plotted for comparison
122	Rollins	(MRR-8) Screening curves from the 1989 APH studies with cost for capacity and energy from Cedar Bay project plotted for comparison
123	Swain	(JVS-1) Location of proposed Cedar Bay project
124	Swain	(JVS-2) Location of proposed Cedar Bay project
125	Swain	(JVS-3) Potential sources of limestone for AES Cedar Bay
126	Swain	(JVS-4) Interconnection and wheeling agreements with JEA
127	Swain	(JVS-5) Letter from JEA regarding effect of proposed project on JEA's system reliability and integrity

Exhibit Number	Witness	Description
201	Enjamio	Deposition Exhibit 1
202	Enjamio	Deposition Exhibit 2
203	Collier	Deposition Exhibit 1
204	Bakke	November 9, 1988 agreement between FPL and AES
205	Swain	Supplemental response to Staff Interrogatory No. 3
206	Swain	Supplemental response to Staff Production of Document Request No. 7
207	Swain	Deposition Exhibit 4
208	Swain	Deposition Exhibit 5
209	Stipulate	FPL's generation expansion planning document, submitted in 1989 APH on September 30, 1988
210	Stipulate	Response to Staff Interrogatory No. 15, Docket No. 870197-EI, Non-firm docket
211	Stipulate	FPL's base case generation expansion plan in Docket No. 870197-EI, Non-firm docket
212	Swain Rollins	Third Supplemental Response to Intergatories 21 and 22

PARTIES' STATEMENT OF BASIC POSITION

AES: The Florida Public Service Commission ("PSC") should make a positive determination of need on the petition by AES Cedar Bay, Inc. ("AES") and Seminole Kraft Corporation ("Seminole Kraft") (collectively, the "Petitioners" or the "Applicants") for the construction of the Cedar Bay Cogeneration Project (the Project) which consists of a 225 MW cogeneration power plant producing electricity for sale to Florida Power & Light Company ("FPL") and a 42 MW power plant for internal paper mill consumption.

AES has complied with the requirements of Rule 25-17.083, Florida Administrative Code, and PSC Order 17480 by signing a negotiated contract with FPL on May 6, 1988. The pricing under the negotiated contract is less than the standard offer established by PSC Order 17480 and thus is of greater benefit to FPL's ratepayers than the standard offer. As of March 13, 1989, contracts totalling 427.5 MW (including this project) have been signed, of which only 20.2 MW have received Commission approval. Thus, the amount subscribed plus the output from the Cedar Bay Cogeneration Project (225 MW) is still less than the 500 MW subscription limit prescribed in PSC Order 17480. Compliance with these criteria alone should be sufficient for a determination of need under the Florida Electric Power Plant Siting Act, Sections 403.501 through 403.517, Florida Statutes (1987), and Section 403.519, Florida Statutes (1987). Although compliance with the five Section 403.519 criteria has not been required in previous PSC Need Orders for cogenerators, the Project also complies with these statutory criteria.

Further, as stated in the Order Denying Impleader in this docket (Order No. 20671 at 2), previous Commission orders have found that "qualifying facilities, by their very nature 'will increase electrical system reliability and integrity and will maintain the supply of adequate electricity at a reasonable cost'"; "that when congenerators are paid pursuant to, or at a cost less than, that of the currently approved standard offer contract, their qualifying facility is 'the most cost effective alternative available."; and "a qualifying facility is found to be a conservation measure 'because it may mitigate the need for additional construction by electric utilities.'" Thus, previous Commission precedent has been that QFs inherently meet the first four criteria set forth in Section 403.519. However, in an abundance of caution, the Applicants will address their compliance with the statutory criteria under Factual Issues below.

STAFF: AES has provided sufficient information for the Commission to evaluate its request in accord with the Rules 25-22.080-.081, Florida Administrative Code and Sections 403.501-.517, and 403.519, Florida Statutes.

STATEMENT OF ISSUES AND POSITIONS

Reliability and Integrity

ISSUE 1: What is the impact of the proposed unit on the electric system reliability and integrity of FPL and peninsular Florida?

POSITIONS

AES: As stated in the Order Denying Impleader in this docket (Order No. 20671 at 2), the Commission has found that QFs, "by their very nature 'will increase electrical system reliability and integrity and will maintain the supply of adequate electricity at a reasonable cost.'" The Applicants note that PSC Order No. 17480 set a subscription limit of 500 MW for the standard offer. As of March 13, 1989, contracts have been signed for 427.5 MW (including the 225 MW Cedar Bay Cogeneration Project) with only 20.2 MW approved by the PSC under Order No. 17480; thus, the Project is within the subscription limit.

Further, this Project will enhance Florida's fuel diversity through the displacement of Seminole Kraft's oil-fired boilers with fluidized-bed coal boilers. Th[illegible] will have a corresponding positive impact on electric system reliability and integrity. Electric system reliability and integrity will also be increased by the Project's impact on the reduction of statewide oil consumption, its use of coal which insulates ratepayers from the potential volatility in fuel prices and assures an uninterrupted supply of power, its 32-year contract term, and its use of independently operating circulating fluidized bed ("CFB") boilers which easily burn both coal and bark.

Studies by both Florida Power & Light Co. ("FPL") and the Jacksonville Electric Authority ("JEA") (as presented in the prefiled testimony of Jeffrey V. Swain and Juan E. Enjamio) indicate that the Project can be safely and reliably integrated into the State's transmission system.

STAFF: Based on the load flow studies performed by FPL, the addition of 225 MW of capacity at AES' proposed site will increase the loading on the north-south 500 kv transmission corridor to significant levels at peak hours.

ISSUE 2: Does FPL or peninsular Florida exhibit a need for additional capacity in 1993?

POSITIONS:

AES: Agree with PSC Staff. In addition, Generation Expansion Planning Studies conducted by the Florida Electric Power Coordinating Group, Inc., for the 1986 and 1989 Annual Planning Hearings ("APH") indicate that capacity additions are required in the State in 1993 and 1992, respectively.

STAFF: This project is a qualifying facility pursuant to our rules and AES has negotiated a contract for the sale of firm capacity and energy which falls within the current subscription limit of 500 MW. Because of these facts, the Commission has already approved the need for this power.

ISSUE 3: Are there any adverse consequences to FPL or peninsular Florida if the proposed plant is not added in 1993?

POSITIONS

AES: There will be adverse consequences to FPL if the plant is not added in 1993 because the payments from FPL are below FPL's avoided cost. Further, the Cedar Bay Cogeneration Project is included in FPL's power supply plans and if the Project is not added, FPL will have to adjust their plans with possible adverse cost implications to FPL's ratepayers.

There will also be serious consequences to one of the Applicants, Seminole Kraft, because it is under a Department of Environmental Regulation ("DER") Consent Order and is subject to DER rules to demonstrate compliance with the total reduced sulfur (odor) emission limiting standards. In order to comply with the DER Consent Order and rules, the new kraft recovery boiler must be on-line by November, 1992. Failure to comply with the schedule and terms of the Consent Order or rules can result in fines of up to $10,000 per day for Seminole Kraft.

STAFF: No.

Adequate electricity at a reasonable cost

ISSUE 4: Will the proposed unit provide adequate electricity to FPL and the peninsula at a reasonable cost?

POSITIONS

AES: Agree with PSC Staff. As stated in PSC Order No. 20671 at 2, QFs, "by their very nature 'will increase electrical system reliability and integrity and will maintain the supply of adequate electricity at a reasonable cost.'" Again, the Applicants note that the Project will satisfy a significant portion of the additional generation requirements for peninsular Florida. Further, payments under the AES contract are below the standard offer and thus are more favorable to FPL's ratepayers than the standard offer.

STAFF: The net present value of the stream of revenues associated with the negotiated contract between AES and FPL have been demonstrated to be less than that of the standard offer contract (COG-2) and FPL's own avoided costs over the life of the contract.

ISSUE 5: Have adequate assurances been provided to assure that AES will have sufficient fuel at a reasonable cost to operate the proposed unit at agreed upon capacity factors for the term of the contract?

POSITIONS

AES: Agree with PSC Staff. Circulating fluidized bed ("CFB") boilers have the inherent flexibility to burn a range of fuels. In addition, coal supply in both the United States and international markets is plentiful.

STAFF: AES is currently negotiating a long-term contract for coal supply,coal transportation and coal waste disposal. Additionally, bark from the kraft mill will be available to provide a supplemental source of fuel.

ISSUE 6: Have adequate assurances been provided to assure that sufficient quantities of limestone at a reasonable cost are available to operate the proposed unit at agreed upon capacity factors for the term of the contract?

POSITIONS

AES: Agree with PSC Staff. There are plentiful reserves of limestone in both the United States and international markets.

STAFF: AES intends to negotiate a long term contract for the provision of limestone for the project.

ISSUE 7: Does the proposed project provide for adequate fuel diversity for FPL and peninsular Florida?

POSITIONS

AES: Agree with PSC Staff. The Project's CFB boiler (a clean coal technology) provides further protection against future acid rain legislation.

STAFF: Yes. These units are projected to burn coal and bark in a 95% to 5% ratio.

Cost-Effective Alternative

ISSUE 8: Is the type, timing and size of the proposed project reasonably consistent with the capacity needs of FPL and peninsular Florida?

POSITIONS

AES: Agree with PSC Staff. In addition, the Prefiled Testimony and Exhibits of Myron R. Rollins indicate that the costs under the Power Sales Contract for the Cedar Bay Cogeneration Project are less than costs for available alternatives. Mr. Rollins' testimony further indicates that the timing and size of the Project are consistent with peninsular Florida's requirements.

STAFF: The circulating fluidized bed boilers are the first to be constructed in Florida for the production of electricity. This project is a qualifying facility pursuant to our rules and AES has negotiated a contract for the sale of firm capacity and energy to FPL which falls within the current subscription limit of 500 MW. Because of these facts, the size, type and timing issues have previously been approved by the Commission.

ISSUE 9: Has AES provided sufficient information on the design and engineering characteristics of the proposed project to enable the Commission to evaluate the proposal?

POSITIONS

AES: Agree with PSC Staff.

STAFF: Yes.

ISSUE 10: Has AES provided sufficient information on the siting of its proposed project to enable the Commission to evaluate its proposal?

POSITIONS

AES: Agree with PSC Staff.

STAFF: Yes.

ISSUE 11: Is the proposed project the most cost-effective alternative available to FPL? AES? peninsular Florida?

POSITIONS

AES: Agree with PSC Staff. Further, as stated in Order No. 20671 in this docket at 2, in previous need determination cases the Commission has found that "when cogenerators are paid pursuant to, or at a cost less than, that of the currently approved standard offer contract, their qualifying facility is 'the most cost effective alternative available." Further, as stated in Order No. 11611, In re: Petition of Florida Crushed Stone Company for Determination of Need for a Coal-Fired Cogeneration Electrical Power Plant, at 4, "we view cogeneration as a cost effective conservation measure."

The Power Sales Contract with FPL is priced below the standard offer and is therefore cost effective. Further, the exhibits filed with the Prefiled Testimony of Myron R. Rollins compare the Project's cost with the feasible generation alternatives evaluated in the FCG 1986 and 1989 APH. The Project's costs are less than the costs for the alternatives and the Project is therefore the most cost-effective alternative available.

STAFF: This project is a qualifying facility pursuant to our rules and AES has negotiated a contract for the sale of firm capacity and energy which falls within the current subscription limit of 500 MW. Because of these facts, this Commission has already found the proposed QF to be cost-effective.

Conservation

ISSUE 12: Are there any conservation or other nongenerating alternatives reasonably available to FPL or AES which might mitigate the need for the proposed project?

POSITIONS

AES: Agree with PSC Staff. In addition, Order No. 20671 at 2 stated, "construction of a qualified facility is found to be a conservation measure 'because it may mitigate the need for additional construction by electric utilities.'" Order No. 11611 (Florida Crushed Stone) at 4 held that this statutory criterion was satisfied "because we believe cogeneration to be a cost effective conservation measure." The Applicants note that cogeneration such as that utilized in this Project is a conservation measure because the Project consumes less fuel to provide the same amount of process steam and electricity than it would to provide them separately.

STAFF: Conservation and other demand side alternatives are not germaine to qualifying facility need determinations.

Associated Facilities

ISSUE 13: What transmission facilities are required to tie the proposed project into the electric grid?

POSITIONS

AES: Agree with PSC Staff.

STAFF: Approximately 1/2 mile of 138 kv transmission line will be required to tie the proposed project into the electric grid at JEA's Eastport substation.

Other Matters

ISSUE 14: Are there other matters within the Commission's jurisdiction that it should consider in the determination of the need for the project?

POSITIONS

AES: Yes. Other matters the PSC should consider in determining the need for the Project include the following:

a) Cogeneration of steam electricity results in higher thermal efficiencies and thus conserves fuel.

b) Significant reduction in total reduced sulfur ("TRS") emissions resulting from the Project will improve the odor situation in Jacksonville.

c) The Project will allow Seminole Kraft to comply with a DER Consent Order and DER Rules requiring it to demonstrate compliance with the TRS emission limiting standards in order to avoid significant fines.

d) Existing oil-fired boilers will be shut down and replaced with a modern plant incorporating advanced pollution control equipment, thus reducing other pollutants (SO2, NOx, particulate, etc.)

e) Land use impacts will be minimal because the Project will be built on an existing industrial site.

f) The Project achieves fuel efficiency in that it meets FERC standards for certification as a QF and uses less fuel than if the electricity and steam were separately produced.

g) The Project contributes to the goals of reducing oil consumption contained in the Florida Energy Efficiency and Conservation Act, Sections 366.80-366.85, Florida Statutes (1987).

h) The Project will benefit Jacksonville's economy by creating many new jobs, contributing millions of dollars in taxes, and creating many "indirect" jobs.

i) The Project will enhance the viability of the Seminole Kraft paper mill and help protect the 500 existing jobs with a positive impact on local purchases.

j) The Project has an effective heat rate for electrical production of approximately 8,200 Btu/kWh which is significantly better than can be obtained in any other coal burning technology and which implies lower air and thermal emissions than can be achieved through the separate production of electricity and steam.

k) The Project wil provide Florida with the State's first large scale circulating fluidized bed ("CFB") unit (one of the leading clean coal technologies) without direct risk to ratepayers.

l) The Project will utilize CFB boilers which limit SO2 and NOx emissions and thus offer protection against potential future acid rain legislation. CFB boilers have demonstrated a high level of reliability.

m) The thermal impact on the St. Johns River will be reduced because the paper mill's once-through cooling system will be replaced by cooling towers.

n) The turnkey engineering and construction contract includes performance guarantees and FPL will review the Project's design and operation, will have approval rights on the selection of an architect/engineering firm, and will review the operation and maintenance program.

STAFF: No. The items discussed by AES are by and large not within the jurisdiction of this Commission.

Legal

ISSUE 15: Based on the resolution of the above factual issues should AES petition for determination of need be granted?

POSITIONS

AES: Yes. Based on the resolution of the above factual issues, the Petition for Determination of Need filed by AES and Seminole Kraft should be granted.

STAFF: No position at this time.

STIPULATED ISSUES

The parties to this docket have stipulated 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. The original equipment was installed prior to October 1, 1973. These facts establish a prima facie need for this segment of the proposed AES Cedar Bay Project.

MOTIONS

There are no outstanding motions.

REQUIREMENTS

All applicable procedural rules and orders have been complied with.

Based on the above, it is

ORDERED by the Florida Public Service Commission that these proceedings shall be governed by this order unless modified by the Commission.

By ORDER of Chairman Michael McK. Wilson, as Prehearing Officer, this 17th day of APRIL, 1989.

MICHAEL MCK. WILSON, Chairman
and Prehearing Officer

(S E A L)

SBr