BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Joint Petition to determine need for electric power plant to be located in Okeechobee County by Florida Power & Light Company and Cypress Energy Partners, Limited Partnership.	DOCKET NO. 920520-EQ ORDER NO. PSC-92-1355-FOF-EQ ISSUED: 11/23/92

The following Commissioners participated in the disposition of this matter:

J. TERRY DEASON
BETTY EASLEY

ORDER DENYING DETERMINATION OF NEED

BY THE COMMISSION:

On May 22, 1992, Florida Power and Light Company (FPL) and Cypress Energy Partners (Cypress) filed a joint petition for a determination of need for two 400 MW class pulverized coal power plants and associated facilities to be located in Okeechobee County, Florida. The associated facilities would include transmission lines, an off-site access road, and an off-site rail access spur.

The following entities filed petitions to intervene in this proceeding: Springs Power Partners, L.P. (Springs); Legal Environmental Assistance Foundation, Inc./Deborah B. Evans (LEAF/Evans); Florida Gas Transmission Company (FGT); Panda Energy Corporation (Panda); Ark Energy, Inc./CSW Development-I, Inc. (Ark/CSW); Okeechobee County (Okeechobee); Nassau Power Corporation (Nassau); Florida Department of Environmental Regulation (DER); and Florida Municipal Power Agency (FMPA). Springs, FGT, and Panda withdrew their petitions to intervene. Each of the other petitioners were granted leave to intervene in this proceeding. A hearing was held on August 19 through 28, 1992.

The substantive aspects of this proceeding are governed by Section 403.519, Florida Statutes. The procedural aspects of the case are governed by the provisions of Chapter 120, Florida Statutes, and Chapter 25-22, Florida Administrative Code.

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SUMMARY OF DECISION

We have determined that FPL has a need for an additional 800 to 900 MW of electric generating capacity in the 1998-1999 timeframe. We have evaluated the Cypress pulverized coal project and find it to be a well engineered, well thought out, mature project. It is not, however, the most cost-effective alternative available. The shortcoming of this high capital cost coal plant is that if the difference between coal prices and gas prices does not significantly widen as predicted by FPL, the ratepayers of FPL will be burdened with the plant's high capital cost but will see no benefit over less costly options. We find that given the uncertainty of present fuel prices, capital costs, and current market trends, the Cypress pulverized coal plant is not the most cost-effective alternative available to meet FPL's 1998-1999 need.

We therefore deny the joint petition for determination of need filed in this docket by Florida Power and Light Company and Cypress Energy Partners.

I. RECONSIDERATION OF PREHEARING RULINGS

Prior to the evidentiary portion of the hearing in this docket we considered Nassau's August 14, 1992, Motion For Reconsideration of the prehearing officer's decision denying Nassau Power's Motion to Consolidate and Bifurcate. We also considered Ark Energy/CSW Development-I's August 7, 1992, Motion For Reconsideration of the prehearing officer's denial of their Motion to Consolidate and Motion For Alteration of Time Limits. The motions merely reargue the parties' previous motions rather than assert some matter which was overlooked, or not considered, which might have caused a different result. Nevertheless, we considered the merits of the motions on a de novo basis and conclude that they are without merit for several reasons. First of all, non-utilities are not included in the statutory definition of an "applicant" who may file for a need determination. See Section 403.503, Florida Statutes. Secondly, we believe the statutory exclusion of non-utilities as applicants recognizes the utility's planning and evaluation process and envisions either approval or denial of the utility's selection of its generation alternatives. No competitive selection is required since we are called on to approve or deny the choice of a single applicant, the utility, rather than select from a number of competing applicants.

Since the purpose of this proceeding is to determine whether need exists for the Cypress project, it is unnecessary to consolidate Ark's and Nassau's need petitions into this proceeding. Likewise, it is unnecessary to bifurcate these proceedings into separate need and comparative evaluation components. Therefore, the motions for reconsideration filed by Ark and Nassau are both denied. Conditional issues 45 through 71 in the Prehearing Order, which relate specifically to the projects proposed by Ark and Nassau are hereby stricken since they are not relevant, necessary, or material to a determination of whether need exists for the Cypress project.

II. STANDING TO INTERVENE

Cypress and FPL have argued that because the substantial interests of Ark/CSW, Nassau Power, and LEAF are not adversely affected by this proceeding, they are not entitled to intervene.

We believe that the record herein reflects that the substantial interests of each could be adversely affected by this proceeding, and we find that each is entitled to intervene in this docket.

We have recognized that it is incumbent upon competing alternatives to come forward at a need determination to demonstrate that the applicant's project is not the most cost-effective alternative. See Order No. PSC-92-0830-PCO-EQ. There is a limited need for additional capacity and energy in the state of Florida. If a need for the Cypress project was determined by this Commission, Nassau and Ark/CSW would not be able to construct their proposed projects to fill FPL's capacity and energy needs in 1998-1999. We believe that Nassau and Ark/CSW have established that their substantial interests are adversely affected by this proceeding.

With regard to the intervention of LEAF, Section 403.519, Florida Statutes, provides that we shall expressly consider the conservation measures taken by or reasonably available to the applicant which might mitigate the need for the proposed plant. For this purpose, we have allowed the participation of environmental intervenors with members in the service territory of the applicant utility. See Order No. 24986, issued August 28, 1991, in Docket No. 910382-EM, wherein this Commission afforded intervenor status to the Sierra Club, Inc., a non-profit corporation with members throughout the state, some of whom were customers of the utility. We find that LEAF has established that its substantial interests are adversely affected by this proceeding.

III. NEED FOR CAPACITY 1998-1999

We believe that FPL has demonstrated a need for approximately 400-500 MW of new capacity in both 1998 and 1999. However, we do not believe the Cypress project is the most strategically cost-effective alternative available to meet that need.

In order to determine whether it needs more capacity and energy to maintain system reliability, FPL uses a dual reliability criteria consisting of a minimum 15% summer peak reserve margin and a maximum 0.1 days per year system loss of load probability (LOLP). (Tr. 222) These reliability criteria have been presented to us in previous need determination proceedings and we find them to be reasonable for planning purposes. FPL witness Waters testified that FPL needs capacity in 1998 and 1999 to meet FPL's LOLP criterion. (Tr. 235) If no capacity is added to FPL's system

starting in the 1998-1999 timeframe, FPL's system LOLP will be approximately 0.3 days/year in 1998 and 0.6 days/year in 1999 (Ex. 6).

The April 1991 load forecast used by FPL to determine capacity need does not reflect Seminole Electric Cooperative's (SEC) proposal to remove 440 MW of partial requirements service from FPL's system starting in 1999. FPL's 1992 load forecast does reflect SEC's potential removed load. FPL is unsure whether it will lose SEC's load or just change the contractual arrangement under which FPL provides partial requirements service to SEC. (Tr. 244) FPL witness Waters testified that "it's not a foregone conclusion" that the load will be removed from FPL's system. (Tr. 244) Witness Waters also testified that if SEC's partial requirements load is removed, FPL's reserve margin will increase, but its system LOLP will not improve much. Removal of 440 MW of load from FPL's system reduces FPL's capacity requirements by 440 MW and, therefore, increases the reserve margin. However, SEC's capacity requirement from FPL has only a 10% load factor, which means that SEC does not always use the full 440 MW available from FPL. As a result, FPL's LOLP does not significantly change even if SEC's 440 MW of demand is removed from its system. (Tr. 343-4) We therefore find that the load forecast used by FPL to determine its need in 1998-1999 was reasonably accurate for planning purposes.

FPL's reliability criteria of 0.1 days/year LOLP will be violated starting in 1998 if capacity is not added in 1998 and 1999. (Tr. 223) FPL witness Waters testified that Florida Electric Power Coordinating Group's 1992 Peninsular Florida Generation Expansion Study identified a statewide need for an additional 840 MW in 1998 and 630 MW in 1999. (Tr. 230-1) As Florida's largest electric utility, FPL shares a sizeable portion of the state's need for capacity. FPL's proposed addition of approximately 800-900 MW in the 1998-1999 time will contribute to the state's identified need and, therefore, contribute to the reliability and integrity of the electric system of FPL and the state of Florida's electric grid. We believe that there may be adverse consequences to FPL and its customers if 800-900 MW of capacity is not added to FPL's system in the 1998-1999 timeframe.

Section 403.519, Florida Statutes, requires the Commission to consider conservation measures taken by or reasonably available to the applicant when deciding whether the proposed plant is needed. It does not require a comparison of Cypress with every conceivable conservation option. The statute requires the utility to show that it has examined conservation measures taken, or reasonably available to it, which might mitigate the need for the proposed

plant. We note that we regularly review FPL's conservation plans and programs, and are thus familiar with FPL's conservation efforts.

LEAF's assertion that additional conservation and demand side management (DSM) could offset the need for additional capacity is not substantiated. However, we believe that conservation has a large role to play in the future of this state and that this Commission and Florida's electric utilities have an obligation to explore cost-effective conservation measures. At the same time, Florida's utilities have an obligation to provide reliable service to all customers. Here new capacity is needed to insure reliability of service to FPL's customers. We are not convinced by the evidence presented herein, that conservation measures can defer FPL's need for 800-900 MW of capacity in 1998-1999. While it is conceivable that additional cost-effective conservation can be implemented by FPL, we are not persuaded that over 800 MW of additional high load factor conservation can be in place in time to cost-effectively defer FPL's need in 1998-1999. Further, we find that, subject to the rate impact measure screening test, FPL has adequately considered cost-effective non-generation alternatives, and has reasonably compared demand side and supply side options.

LEAF witness Plunkett proposed numerous programs to increase the amount of conservation on FPL's system. We cannot accept Mr. Plunkett's assertion that these programs would defer FPL's 1998-1999 need for the following reasons:

1. Mr. Plunkett's proposals do not appear to be cost-effective.

   FPL witness Hawk testified that if Mr. Plunkett's recommended proposals were feasible, they would significantly increase the cost of electricity to FPL's customers. (Tr. 1922) LEAF's proposals would cost FPL's ratepayers over $1.4 billion more than FPL's least cost generation alternative. (Ex. 54)

2. Mr. Plunkett's proposals appear to have understated true costs and overstated potential benefits.

   FPL witness Wile testified that cost estimates of LEAF's proposed DSM were understated and benefits overstated. When these exaggerations are corrected, many DSM programs are no longer cost-effective. Mr. Plunkett himself stated that his proposed 426 MW demand reduction due to DSM is actually a "rough estimate". (Tr. 886-7) Mr. Wile stated that "rational consumer behavior reflects more accurate information than the engineering estimates upon which much of Mr. Plunkett's analysis was based." (Tr. 1827)

3. Mr. Plunkett's comparison of FPL's conservation efforts to those of several "leading utilities" in the northeast is misleading.

FPL witness Hawk testified that FPL's conservation efforts were primarily focused on residential customers in the past because they contributed the highest level to FPL's system peak and represent the largest segment of FPL's sales. (Tr. 1887-8) Among LEAF's "leading utilities", commercial and industrial customers represent the largest segment of energy sales. Consequently, these utilities' efforts have favored commercial and industrial customers. Mr. Hawk noted FPL's experience in assessing DSM programs, contending that most of LEAF's "leading utilities" did not pursue DSM until 1987. (Tr. 1890) Thus, FPL's projected DSM plans are based on actual results, while LEAF's northeastern utilities efforts are primarily based on forecasts. (Tr. 1891)

LEAF correctly states that FPL did not consider the impact of recently approved conservation programs such as the Revised HELP program and three commercial/industrial programs. However we had approved none of these programs when FPL's power planning process was performed. Nonetheless, these programs would not significantly impact FPL's need for approximately 800-900 MW in the 1998-1999 timeframe. On balance, we find that FPL has adequately considered reasonably available conservation and non-generation alternatives which could mitigate all or part of its need for new capacity.

IV. PROJECT SPECIFIC CRITERIA

DER has suggested that we issue a general determination of need rather than a project and fuel specific determination for Cypress only. Section 403.519, Florida Statutes requires that we take into account whether the proposed plant is the most cost-effective alternative available. Since Section 403.519, Florida Statutes is project specific, we believe that our need determination must also be project specific. Thus, we have directed our review specifically to the FPL/Cypress project, and will not issue a general determination of need. Instead, we have based our decision on plant-specific criteria.

We have thoroughly evaluated the Cypress pulverized coal project and find it to be a well engineered, well thought out, mature project.

We find that FPL reasonably considered the costs of environmental compliance with the 1990 amendments to the Clean Air Act when it evaluated the Cypress project and that FPL adequately and fairly addressed cost factors relating to the sale of combustion by-products from the proposed Cypress project. We believe that such costs (or savings) are a risk to the developers and were properly reflected in Cypress' proposal.

We find that the joint petition to determine need for the Cypress pulverized coal units is not premature. The dates contained in the milestone schedule for the project (Ex. 12) are reasonable for planning purposes. With a 41 month construction schedule for a pulverized coal plant, the timing of the Cypress petition in 1992 was reasonable considering the amount of time necessary for site certification.

We find that Cypress has a mature project proposal. Cypress provided FPL with sufficient data for FPL to execute a reasonable evaluation for the purposes of these proceedings. Cypress is proposing distillate oil as starting fuel and coal delivered by rail as the primary fuel. The project site includes on-site rail, coal yard(s), coal handling facilities, and a landfill disposal area. (Ex. 11 page 4.1) We find that there is an abundant supply of domestic coal and adequate existing railroad transportation to service the project needs over its life. (Tr. 391, 508-512, 520-521, 522)

We find that the Cypress pulverized coal units would contribute to fuel diversity for FPL's system and for peninsular Florida. The Cypress coal-fueled plant would reduce FPL's and peninsular Florida's dependence on foreign oil and would generally reduce fuel price volatility. However, a combined cycle unit would also diversify FPL's supply side resources if it were capable of burning gasified coal. Our evaluation of the project's fuel diversity includes consideration of utility promotion of the use of renewable energy resources, demand-side management and end-use efficiency, to the extent they are cost-effective based on the ratepayer impact measure screening test.

We find the dual firing capability of the proposed Cypress project offers the customers protection against outages due to extended fuel supply interruptions.

We find that FPL and Cypress have provided project information including the site, design, and engineering characteristics of the two 416 MW pulverized coal units, which is sufficient to enable us to adequately evaluate the proposal. The associated facilities requested for the Cypress project are reasonable with the exception

of a railroad access spur. The approved associated facilities include two 500 KV transmission lines and associated terminal equipment and a 1.7 mile plant access road. While we do not believe that a 30 mile rail spur giving dual railway access to the plant is needed or essential to the project, and we deny approval to the rail spur, we do not consider this an impediment to our finding the proposed plant anything but well-engineered.

FPL's contract with Cypress contains adequate assurances in the form of economic incentives and disincentives that the Cypress facility will operate reliably for the life of the contract. In addition we find that the Cypress contract contains adequate assurances, in the form of economic incentives and penalties, that its facility will be completed and available to meet FPL's projected need. We also find that FPL's contract with Cypress provides adequate assurances that the Cypress facility will be made available to FPL in a way that will allow FPL to minimize its total system operating costs and meet its peak system demands. Finally, with regard to FPL's contract with Cypress, we find that it contains adequate security, in the form of economic penalties, to protect FPL's customers in the event Cypress does not perform its contract as anticipated.

We find that the pulverized coal unit being proposed by FPL and Cypress would contribute to the provision of adequate electricity to FPL and the state of Florida, but, while it is well engineered, and would meet FPL's capacity needs, is not the most cost-effective alternative available to FPL. There are alternatives available to FPL that are more cost-effective.

V. COST EFFECTIVENESS

A pulverized coal plant, like the proposed Cypress plant, has a high initial capital cost because the physical plant required to burn pulverized coal is expensive. Thereafter, for the life of the project, the pulverized coal plant takes advantage of historically lower fuel prices than plants that burn gas or oil.

The initial capital cost of a combined cycle plant is lower than the cost of a pulverized coal plant. The physical plant itself is simply less expensive. Although the combined cycle plant typically burns gas or oil, which have historically been more expensive than coal, the combined cycle plant has the advantage of fuel flexibility. If gas or oil prices become prohibitive, a coal gasification unit can be added and the combined cycle plant can burn coal gas.

Thus a combined cycle plant, capable of adding coal gasification at a future date, offers a strategic cost-effective advantage over a capital-intensive pulverized coal plant. The less expensive combined cycle plant can burn gas unless gas prices escalate enough to justify the capital expenditure required to convert the unit to burn coal.[1]

Therefore, we must consider fuel price forecasts in order to determine cost-effectiveness. If gas and oil prices remain close to coal prices, the less capital intensive combined-cycle plant is more cost-effective. If gas and oil prices escalate significantly but coal prices do not, the pulverized coal plant would be more cost-effective. The pulverized coal plant makes sense only if we are convinced that the difference between the price of coal and natural gas will continue to widen for the life of the project. We cannot draw that conclusion from this record.

FPL's base case fuel forecast, used to justify the Cypress project, shows oil and gas prices consistently rising to several times the price of coal. However, Composite Exhibit 48, which shows historic fuel cost comparisons, does not support FPL's forecast. For the Cypress project to show a savings, natural gas prices must significantly and consistently diverge from coal prices.

Exhibit 31 is a sensitivity analysis which was referred to throughout the hearing as staff's "acid test". This sensitivity analysis assumes a constant natural gas/coal price differential over thirty years. The following table compares the estimated costs to the customer for the Cypress, Ark/CSW, and Nassau proposals using a DRI fuel forecast (Ex. 9) and staff's "acid test" based on FPL's coal price forecast. (Ex. 31) We believe that this information demonstrates the cost-effectiveness of a combined cycle plant if fuel prices continue on the same trend as they have over the past five years.

The Ark/CSW and Nassau values in Exhibit Nos. 9 and 31 are estimates of actual fuel costs and are not derived from their power sales proposals. The prices contained in the power sales proposals submitted by Ark/CSW and Nassau would have reflected a more

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[1]This is what staff refers to as "fuel-capital cost flexibility", a term of convenience used throughout staff's recommendation whose concept we have accepted in past orders, (see Order No. PSC-92-0002-FOF-EI, issued March 2, 1992 in Docket No. 910883-EI, and Order No. 23080, issued June 15, 1990, in Docket No. 890974-EI) and which we now accept in this Order.

substantial savings over Cypress than that shown in the analysis below. We are uncomfortable however with a simple direct comparison of contract prices since Ark/CSW and Nassau, having full knowledge of the Cypress prices, simply duplicated the Cypress contract and plugged in lower prices.[2] Nonetheless even under the more favorable cost vs. price analysis, the Cypress project is not the most cost-effective alternative of those of record in this docket:

Year 2010 Cumulative Present Worth of Customer Costs
in 1992 dollars

	DRI Fuel Forecast STAFF EXHIBIT 9		Constant Coal-Natural Gas Differential STAFF EXHIBIT 31	
	¢/KWH	Million 1992 $	¢/KWH	Million 1992 $
Cypress	2.40	1,849	2.46	1,901
Ark/CSW	2.26	1,742	1.89	1,456
Nassau	2.22	1,788	1.84	1,485

Three forecasts of natural gas prices are contained in the record herein. In addition to FPL's fuel forecast of oil and natural gas prices (Ex. 3), there is a 1991 DRI forecast (Ex. 55, Ex. 8) and a forecast presented by Mr. Phipps. (Ex. 46) These three forecasts indicate that oil and natural gas prices will tend to increase relative to coal but they do not agree by how much.

We believe that FPL's base fuel forecast is high and does not reflect current market trends. FPL's primary reliance on its base fuel forecast appears to have created a bias against gas-fired alternatives. As a result, all gas-fired options were eliminated from FPL's selection process at an early stage. We believe this was a mistake.

We have been concerned for some time now with fuel price forecasts that project increasingly divergent prices between coal and natural gas or oil. Actual price comparisons do not support these forecasts. In Order No. PSC-92-0002-FOF-EI, issued March 2,

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[2]We note however, that if FPL signed the contracts tendered by Ark/CSW or Nassau, and this Commission approved the contracts, Ark/CSW and Nassau would be bound by contract prices which are significantly lower than the Cypress contract prices.

1992, in Docket No. 910883-EI, determining the need for Tampa Electric Company's Polk County IGCC unit[3] we expressed our concern with fuel price forecasts this way:

> We are concerned, that TECO's forecast favors the use of coal over oil or natural gas over the long term for projects with similar costs. An extremely low natural gas price forecast favors an expansion plan which contains just combustion turbine and combined cycles. A low natural gas price forecast does not favor an expansion plan that includes the DOE IGCC project.
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> The type of new generating unit chosen is not necessarily driven by fuel cost per se; rather, it is the difference in cost among competing fuels. TECO's fuel forecast projects a widening cost differential between coal and natural gas or oil, when in fact for many years the cost differential between the cost of coal and the cost of natural gas and oil has remained relatively constant. In the future, TECO should pay close attention to this differential, and must be ready to substantiate continued reliance upon fuel price forecasts that have not accurately predicted the relationship between the price of coal and the price of natural gas and oil.

The chart below compares the historical (1987-1991) difference (in equivalent price per barrel of 1% sulfur oil) between natural gas and coal prices to the prices predicted in FPL's base case forecast. The sustained divergence between gas and coal prices predicted in FPL's forecast is not borne out by the historical figures:

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[3]In Order No. PSC-92-0002-FOF-EI, issued March 2, 1992, we found the IGCC unit to be the most cost-effective alternative for TECO because of the U.S. Department of Energy grant to demonstrate hot gas clean-up technology...."[i]n this proceeding the determinative issue is whether it is cost-effective for TECO and TECO's ratepayers to incur the higher capital cost of an IGCC unit to enable use of lower cost coal fuel. That appears to be the case here, because the DOE grant significantly lowers the total capital cost of the project."

$/EQUIVALENT BARREL

	Year	Natural Gas $/BBL	JEA Coal $/BBL	Difference $/BBL
(1)	1987	20.03	10.17	9.85
	1988	14.15	9.85	4.29
	1989	16.37	10.97	5.40
	1990	15.89	10.81	5.09
	1991	13.53	10.33	3.50
(2)	1991	14.05	11.70	2.35
	1992	18.69	11.38	7.31
	1993	22.19	11.82	10.36
	1994	25.68	12.33	13.35
	1995	28.80	12.97	15.83
	1996	31.60	13.73	17.86
	1997	35.22	14.24	20.98
	1998	38.27	14.94	23.33
	1999	40.75	15.26	25.49
	2000	43.68	15.89	27.78
	2001	53.40	16.59	36.81
	2002	56.20	17.16	39.03
	2003	60.27	17.42	42.85
	2004	64.65	18.12	46.54
	2005	69.17	18.88	50.29
	2006	74.00	19.64	54.36
	2007	79.02	20.85	58.17
	2008	84.36	21.74	62.62
	2009	89.89	22.70	67.20
	2010	95.74	23.65	72.09
	2011	101.85	25.37	76.48
	2012	108.46	26.45	82.01
	2013	115.39	27.72	87.67
	2014	122.82	28.99	93.84

Notes:

(1) Mid Year historical 1987-1991 calculated from EXHIBIT 48 per following conversion formula:

$/Equivalent Barrel = $/MMBtu x 6.3574 MMBtu/Barrel average per EXHIBIT 6

(2) 1991-2017 calculated from EXHIBIT 6 per following conversion formula:

$/Equivalent Barrel = $/MMBtu x 6.3574 MMBtu/Barrel

No witness offered a convincing explanation as to why there will be a major divergence between coal and natural gas prices when this has not occurred in the past. While we cannot conclude that a divergence will not occur, we do conclude that it is uncertain whether a divergence of this magnitude will occur. This leads to the question of what generating unit addition can best strategically cope with the uncertainty.

Until history takes it course the accuracy of FPL's forecast will remain unknown. Whether or not the forecast proves accurate, FPL in selecting the Cypress pulverized coal project has not followed a course which would allow for its forecast's inherent uncertainty. If the forecast proves wrong, FPL's ratepayers will be stuck with the high capital cost of a pulverized coal plant when savings could have been attained with a combined cycle plant.

A better strategy for FPL and its ratepayers is to build a lower capital cost oil/natural gas combined cycle unit that is convertible to coal should it become apparent that the oil/natural gas versus coal fuel price differential is widening on a sustained basis.

We thus find that given present fuel prices, capital costs and current market trends, the Cypress pulverized coal plant is not the most cost-effective alternative available to meet FPL's 1998-1999 need.

VI. ENVIRONMENTAL ISSUES

Both DER and LEAF suggested issues relating to the environmental impact of the FPL/Cypress proposal, which we will deal with herein.

With regard to this need determination proceeding we find that the viability and feasibility of the Cypress project is not adversely affected by the environmental characteristics of the proposed technology and site location.

In August of 1992 the Site Certification Application for Cypress was considered complete by DER. (Tr. 595, Ex. 15) Additionally, two other coal fired plants located in the vicinity of Lake Okeechobee, Indiantown Cogeneration project and OUC's Stanton Unit 2, have recently received certification by the Siting Board. During the Siting process each of these projects were required to incorporate additional mercury emission controls. (Tr. 573, 574) Cypress understands that there may be additional requirements to control the mercury emissions and is willing to

assume such risks. The cost of acquiring additional emission control is a burden carried by Cypress and does not affect the power sales agreement. (Tr. 1650, 1651) Similarly, any costs to comply with environmental aspects addressing endangered species, wetlands, natural surroundings degradation and other considerations will be borne by Cypress. (Id.) DER is not committed to the type of control equipment used, as long as it achieves the desired results. (Tr. 574-576) DER's Mr. Oven testified that mercury and other heavy metals from utility plants are not regulated with specific emission limitations. The limits are currently set on a case-by-case review based on the unique characteristics of most sites and plants. He also testified that power plants are generally designed and built such that they are not a threat to public health. (Tr. 581-583)

Further, we do not believe it prudent to base our determination of need for a power plant on guesswork as to the action or inaction of the Siting Board.

We have denied need for the Cypress project primarily because it is not the most cost-effective alternative available. There are other factors which lend support to our denial of need, but which are not dispositive. The record reflects that Hamilton S. Oven, Jr., Professional Engineer and Administrator with the Florida Department of Environmental Regulation, testified that DER "would favor a gas-fired plant as being less environmentally disruptive than a coal-fired plant." While this was not a dispositive factor to our decision herein, we have given due consideration to the preference of our fellow administrative agency. We respect the expertise, specialized knowledge, and legislative authority of DER in environmental matters, and we take heed of their preference in this matter.

The record also reflects that combined cycle and IGCC type power plants are more thermally efficient than a pulverized coal unit with scrubber. The Cypress units would have a net plant heat rate of approximately 9,965 Btu/kWh while Nassau (Tr. 1308) indicates a heat rate of 7,240 Btu/kWh for their proposed combined cycle QF. While this factor provides a small measure of support to our decision to deny the Cypress need petition, we would emphasize that it is by no means dispositive, or even a significant factor.

Generally, we believe that we should not consider the costs and benefits associated with environmental externalities when evaluating cost-effectiveness in need determination proceedings. This is because the statutory scheme envisions the bifurcation of environmental issues (which are considered by the DER) and regulatory issues (which are considered by the Commission). The

Florida Public Service Commission has neither the expertise, the personnel, nor a statutory directive to consider such environmental issues. These matters, traditionally and statutorily, have been considered by the Florida Department of Environmental Regulation and not the Florida Public Service Commission.

In this docket, the record is far too incomplete for us to consider environmental externalities, even if we decided to do so. In both the Martin and Lauderdale need determination proceedings, we decided that we "should not seek to expand need determination proceedings to cover environmental and natural resources issues." (Order No. 23079, 1.20; Order No. 23080, 1.22) We choose in this docket to continue to follow our previous policy.

VII. FPL'S EVALUATION PROCESS

When a utility identifies a need for additional capacity, it should seek out all potential alternatives in order to meet that need in the most cost-effective manner possible. In the past we have not required utilities subject to our jurisdiction to pursue any specific method of evaluating alternatives available to meet that defined need. Instead, we have reviewed the utility's evaluation process after the fact, at the need determination proceeding.

In this case we find that FPL's selection process was less than optimal. FPL did not ensure that all interested parties had an equal opportunity to submit capacity proposals, but instead considered one project left over from a 1989 request for proposals (RFP) and 14 unsolicited proposed projects. As a result, FPL did not adequately consider all potential purchased power options.

This has resulted in a lack of closure in the need determination process. When a utility does not employ a fair, noticed procedure such as bidding to select the most cost-effective project, we must look to outside sources to determine whether the proposed plant is the most cost-effective alternative. Cogenerators and independent power producers provide alternatives

which may (or may not) be more cost-effective.[4] Competing providers who believe that their project is more cost-effective may participate in the need hearing, and may attempt to demonstrate that the applicant for need cannot provide the utility with power at the lowest cost.

We will not second-guess utilities in their project selection when a demonstrably fair selection procedure has been employed. In such instances, other competing providers who have had ample opportunity to participate in the procedure, but failed to do so, will not be considered in our cost-effectiveness analysis. But where as here, a fair mechanism such as bidding was not employed by the utility, this Commission may consider other proposed projects in determining cost-effectiveness, whether or not they were previously presented to FPL. In this docket we have considered the proposed combined cycle projects submitted by Ark/CSW and Nassau in making our cost-effectiveness analysis.

In this Order we have determined that FPL has a need for 800 to 900 MW of additional capacity in the 1998-1999 timeframe. While we generally choose not to dictate the methodology employed by a utility to select between competing generation alternatives to fill a need for capacity and energy, in this case we suggest that the utility employ a selection procedure such as bidding, that will result in closure of the process. As long as FPL employs a selection procedure that does not give a clear point of entry to the universe of non-utility generators, is not noticed, and is not demonstrably objective and fair to all participants, there will be no closure to the need determination process. Any non-utility generator, having seen the price in FPL's next need petition, will be able to intervene in the need proceeding and put a better price on the table. If need is then denied because the proposed plant is not the most cost-effective alternative available, the process could repeat itself ad infinitum, with the need never being filled,

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[4]We note that we may consider a Qualifying Facility (QF) to be a statutorily preferable alternative to an Independent Power Producer. Section 403.519, Florida Statutes, specifies the matters to be taken into account by the Commission in making its determination of need. Although these criteria give no preference to QF projects, Section 403.519 also provides that the Commission shall consider other matters within its jurisdiction which it deems relevant.

Section 366.81, Florida Statutes, provides that the Commission should encourage cogeneration. Thus, this is a matter within the Commission's jurisdiction which may be considered in a need determination proceeding. Of course, this is only one of many factors the Commission may consider in making its determination of need. It should not be dispositive except in close cases.

and with more cost-effective alternatives presented at each successive need determination proceeding. FPL needs 800 to 900 MW of additional capacity in the 1998-1999 timeframe. It will be difficult for FPL to fill this need in a timely fashion without employing a fair selection procedure with demonstrable integrity, which has been properly noticed and provides a clear point of entry to the universe of competing providers.

We specifically reject suggestions made by Ark/CSW and Nassau that would give their projects priority over others. Intervention in this docket gives these parties no greater standing with regard to meeting FPL's need than any other QF or IPP. In this proceeding we will not dictate the methodology to be employed by FPL to choose a project to fill its need, so long as it employs a fair and open selection procedure which results in closure. While bidding is one such procedure, it is up to FPL to select the procedure it will employ. We do not intend by this Order to require bidding, or to preclude FPL from considering any option to fill its 1998-1999 need.

VIII. PROPOSED FINDINGS OF FACT

We have made specific rulings on all proposed findings of fact submitted by the parties. Specific rulings on Nassau's proposed findings of fact are attached hereto as Attachment 1. Specific rulings on the proposed findings of fact submitted by LEAF and Evans are attached hereto as Attachment 2.

It is therefore,

ORDERED that the joint petition for determination of need filed by Florida Power and Light Company and Cypress Energy Partners on May 22, 1992, is hereby denied. It is further

ORDERED that all findings of fact and conclusions of law contained herein are hereby approved. It is further

ORDERED that this docket shall be closed.

By ORDER of the Florida Public Service Commission, this 23rd day of November, 1992.

STEVE TRIBBLE, Director
Division of Records and Reporting

(S E A L)

MAP:bmi

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), 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 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 or sewer 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 Civil Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

ATTACHMENT 1

SPECIFIC RULINGS ON NASSAU'S PROPOSED FINDINGS OF FACT

PERMITTING RISK (Issue 1)

1. Different generating technologies have associated with them different degrees of permitting risk - that is, the risk that environmental agencies may refuse to authorize construction or operation of a proposed generating unit due to adverse impacts on the environment associated with that unit. (Tr. 1523, l. 22-25; Tr. 1524, l. 1-23)

We accept and incorporate this finding.

2. Annually, the proposed Cypress unit would emit .38 tons of mercury on average, with a maximum emission rate of 1.95 tons; 9,746 tons of SO_2; 75,210 pounds per hour of solid wastes from its cooling water; 41,000 pounds per hour of ash; 26,180 pounds per hour of scrubber wastes. (Tr. 574, l. 10-13; Ex. 47, vol. 1, Table 3.4-1, p. 3.4-3; Ex. 47, vol. 1, Table 3.7-1, p. 3.7-2)

We accept and incorporate all portions of this finding except solid wastes for cooling water. Table 3.7-1 indicates 6,250 pounds per hour of water and wastewater treatment solids.

3. Agencies associate existing mercury contamination with dangerous levels of mercury in fish in the Everglades and with the decline of the Florida panther, an endangered species. (Tr. 582, l. 23-25; Tr. 583, l. 1-5; Tr. 587, l. 4-9)

We accept and incorporate this finding.

4. Nassau Power's gas-fired Okeechobee project would emit virtually no mercury, no SO_2, and would produce no solid wastes. (Tr. 1375, l. 15; Tr. 1524, l. 14-18; Tr. 1525, l. 23)

We reject this finding for SO2 and solid wastes because the record at page 1524, lines 8-9, states "emit far smaller quantities of SO2," and at lines 17-18 speaks to "scrubber by-products."

5. The Florida Department of Environmental Regulation intervened in this proceeding to describe the differences in the impacts of coal-fired and gas-fired generating units and to state its preference for a gas-fired alternative. (Tr. 569, l. 7-25; Tr. 570, l. 1; Tr. 622, l. 22-25; Tr. 623, l. 1-3)

We reject this finding because it is not reflective of the statement made by Mr. Donelan in reply to Commissioner Deason concerning the purpose of Mr. Oven's testimony.

6. Nassau Power's Okeechobee gas-fired project presents fewer adverse impacts on the environment and carries a correspondingly lower permitting risk than does the proposed Cypress pulverized coal project. (Tr. 1523, l. 22-25; Tr. 1524, l. 1-23)

We reject this finding because it is overly broad. The above finding is based on the testimony of Nassau's witness. DER's witness Oven at page 620, lines 14-16, stated that it was possible that a gas-fired facility could not obtain certification.

NEED FOR UNIT; ADVERSE CONSEQUENCES (Issues 8 and 9)

7. Nassau Power's Okeechobee project would have dispatch price and in-service dates identical to those of the proposed Cypress project. (Tr. 1391, l. 22-25; Tr. 1392, l. 1-22; Tr. 1394, l. 15-19)

We accept this finding insofar as the in-service dates are concerned. We reject this finding on dispatch price because pages 1391 and 1392 speak to the dispatchability at a minimum of 40% for Nassau as opposed to a minimum of 25% for Cypress.

8. Nassau Power's project is located very near the site of the proposed Cypress project and close to FPL's load center. It would impose impacts on FPL's transmission grid similar to those of the Cypress project. (Tr. 1323, l. 5-8; Tr. 1376, l. 20-21)

We accept and incorporate this finding.

9. The range of Nassau Power's proposed committed capacity, 425-460 MW, overlaps the range of 395-437 MW established for the Cypress units. (Tr. 1377, l. 17-19; Tr. 1394, l. 20-25)

We accept and incorporate this finding.

10. Nassau Power has proposed to accept the same energy price proposed by FPL for Cypress and to discount the capacity payments contained in the proposed Cypress contract. (Tr. 1390, l. 8-16)

We accept and incorporate this finding.

11. Either Nassau Power or Cypress would be dispatched by FPL at capacity factors of 80-85%, under economic dispatch, based on their economical energy costs. (Tr. 327, l. 7-12; Tr. 1324, l. 6-19; Tr. 1323, l. 10-18)

We accept this finding that Cypress would be dispatched at 80-85% and reject this finding that Nassau would be dispatched at 80-85% because page 327, lines 7-12, speak only to Cypress.

12. Nassau Power's requirement of a minimum 40% capacity factor to meet the needs of its cogeneration unit's thermal application would not materially increase costs to ratepayers as compared to Cypress' contractual floor of minimum 25% capacity factor. (Tr. 1324, l. 6-19)

We reject this finding because page 1324, lines 6-19, speaks to production costing, not costs to ratepayers.

13. Nassau Power proposes alternative project scopes of a single 435 MW unit or of two such units phased in a year apart. (Tr. 1375, l. 5-13)

We accept and incorporate this finding.

14. Nassau Power's proposed project incorporates provisions for 30 days' supply of back-up fuel. (Tr. 1387, l. 20-23)

We accept and incorporate this finding.

15. Nassau Power's single 435 MW project can be satisfactorily interconnected to FPL's transmission system at 240 KV if two circuits are used. (Tr. 1387, l. 1-19; Tr. 2204, l. 1-8)

We accept and incorporate this finding.

16. Nassau Power's alternative two unit project can be satisfactorily interconnected to FPL's transmission system at 240 kV if three circuits are used. (Tr. 1387, l. 1-19; Tr. 2204, l. 1-8)

We accept and incorporate this finding.

17. Nassau Power has obtained two letters of intent from suppliers of natural gas willing to contract for 15 years at prices which are subject to either fixed escalation rates or escalation clauses tied to indices independent of changes in the market price of natural gas. (Tr. 1401, l. 2-14; Ex. 39 (PNC-13, 14))

We accept this finding as to term and reject this finding as to escalation rates. The escalation rates on both letters are redacted.

18. Nassau Power will completely pay off its debt associated with constructing the project over the 15 year period of its initial long-term fuel contracts. Following the payoff, Nassau Power will experience a dramatic increase in cash flow that would enable it to absorb significant increases in fuel costs during the later years of its power purchase contract. (Tr. 1384, l. 15-24; Tr. 1462, l. 3-6)

We accept and incorporate this finding.

19. Nassau Power's affiliated company has the ability to supply gas to Nassau Power's project from its own gas holdings and gas acquisition program. (Tr. 1385, l. 16-21)

We reject this finding. Witness Cantner at page 1459, line 1-13, stated he did not know whether Falcon Seaboard had sufficient reserves to furnish gas for this project.

20. Combined cycle units are technically capable of adding coal gasification facilities and burning gas derived from coal. (Tr. 2233, l. 18-23)

We accept and incorporate this finding.

21. Adequate supplies of gas are available for the Nassau Power project. (Tr. 1548, l. 14-18)

We reject this finding. The witness, at page 1548, stated "although there are adequate natural gas reserves available for higher level of consumption in the U.S." He said nothing about transportation or Nassau.

22. The Nassau Power project is feasible, permittable and can be developed in an environmentally sound manner at the proposed site. (Tr. 1523, l. 12-21; Ex. 45)

We reject this finding because it was not supported by the preponderance of evidence in this proceeding.

23. Nassau Power holds an option to buy the 150 Okeechobee site from the City of Okeechobee. (Tr. 1426, l. 10-13)

We accept and incorporate this finding.

24. Nassau Power has applied to receive firm service from FGT. (Tr. 1383, l. 12-16; Tr. 1402, l. 14-19; Ex. 39 (PNC-8, 16))

We accept and incorporate this finding.

25. Service from FGT could be provided by expansion of capacity or by reallocation of presently planned capacity. (Tr. 1425, l. 1-12)

We accept and incorporate this finding.

26. Efforts are underway to develop a competitive alternative to FGT that would be capable of serving Nassau Power. (Tr. 1401, l. 18-25; Tr. 1402, l. 1-12; Ex. 39 (PNC-15))

We accept and incorporate this finding.

27. The effect of Nassau Power's discount on its proposed two unit configuration would be to save ratepayers $266 million (net present value) compared to the price of Cypress, assuming each would operate at the level required to receive full capacity payments. If Nassau Power's alternative configuration of a single 435 MW unit is built, it would save ratepayers $140 million (net present value)

as compared to the corresponding cost of a Cypress unit. (Tr. 1326, l. 13-21; Ex. 38 (JAR-3,4))

We accept the finding in part if the qualification stated at page 1341, lines 6-9, is included.

28. Nassau Power's Okeechobee project costs less than the Cypress alternative when measured on a cents/kwh basis. (Tr. 2214, l. 2-11)

We accept and incorporate this finding.

29. FPL's quantification of FPL's cost of its own combined cycle facility (Ex. 19) omitted the cost of expensive Selective Catalytic NO_x Reduction (SCR) technology. (Tr. 2208, l. 4-22)

We accept and incorporate this finding.

30. FPL's quantification of its own cost of constructing a combined cycle unit (Ex. 19) included provisions for only 36 hours' (1&1/2 days') supply of back-up fuel. (Tr. 2208, l. 12-22)

We accept and incorporate this finding.

31. FPL's quantification of the total cost to ratepayers of FPL's own combined cycle unit included assumptions of fuel costs with which FPL disagrees as being too low. (Tr. 2205, l. 12-25)

We accept and incorporate this finding with the qualification that the fuel cost assumptions used were those of the Commission Staff.

32. The Nassau Power advanced design combined cycle Okeechobee project underlying Nassau Power's proposed contract includes SCR technology and 30 days' supply of back-up fuel storage. (Tr. 1300, l. 16-19; Tr. 1387, l. 20-23)

We accept and incorporate this finding.

33. Expressed on the basis of cents per kilowatt hour (net present value), the total cost to ratepayers of Nassau Power's proposed contract payments for the Nassau Power Okeechobee project <u>with</u> SCR

and 30 days' back-up fuel would be less than the quantified cost to ratepayers of the FPL combined cycle unit that fails to include the cost of SCR and provides three days of back-up fuel, and that includes fuel costs lower than FPL's assumptions. (Tr. 2214, l. 2-11)

We accept and incorporate this finding.

34. When non-price factors are considered, Nassau Power's Okeechobee project is FPL's most cost-effective alternative available. (Tr. 1374, l. 7-25; Tr. 1375, l. 1-25; Tr. 1376, l. 1-12.)

We reject this finding because we cannot find that a project is "most cost-effective" when only considering "non-cost factors."

EVALUATION PROCESS (Issues 19 and 20)

35. In 1989, FPL issued a Request for Proposals (RFP) that attracted submissions from 34 interested providers. (Tr. 2054, l. 1-5)

We accept and incorporate this finding as long as the transcript page reference is changed to page 2055.

36. In November 1989 FPL told Southern it would not entertain additional capacity proposals while its RFP was pending. (Tr. 2057, l. 1-23)

We reject this finding because the question was "different capacity proposal," not "additional."

37. In January 1990 Southern proposed a bricks-and-mortar sale of Scherer 4 completely outside of the ongoing RFP process. (Tr. 2057, l. 24-25; Tr. 2058, l. 1-6)

We accept and incorporate this finding.

38. FPL decided that it wanted to buy Scherer 4 from Southern outside the RFP process before it negotiated with any of the 34 RFP participants. (Tr. 2060, l. 7-25; Tr. 2061, l. 1)

We reject this finding because the witness stated at page 2059, lines 12-19, "the results of that, go back to the Scherer proceeding, ... the Company, in its evaluation, found that the UPS proposal that was made by the Southern Company was by far and away the best proposal made to the Company. And the brick-and-mortar proposal that then the Company undertook to pursue and continue to pursue with the Southern Company, we found to be even better than the winning proposal."

39. FPL applied its evaluation criteria to the RFP submissions at the same time it was actively negotiating the purchase of Scherer 4 outside the RFP process. (Tr. 2058, l. 23-25; Tr. 2059, l. 1-11)

We accept and incorporate this finding.

40. After ranking the RFP submissions, FPL withheld the results of its completed evaluations from the 34 participants for 5 to 6 weeks while it pursued its desired purchase of Scherer 4 from Southern. (Tr. 2061, l. 10-25; Tr. 2062, l. 1-25; Tr. 2063, l. 1-5)

We accept and incorporate this finding.

41. The acquisition of Scherer 4 was not an outgrowth of the 1989 RFP. (Tr. 2064, l. 2-6)

We reject this finding because during the evaluation of the UPS proposal the purchase option was being studied. See our response to Finding of Fact Number 38 above.

42. FPL did not solicit capacity proposals to meet its 1998-1999 need. (Tr. 128, l. 25; Tr. 129, l. 1-2)

We reject this finding. At pages 128 and 129, the witness answered that "there was not an RFP issued during that timeframe."

43. FPL regarded its prior testimony in planning dockets at the Commission as information concerning its system that was available to interested capacity providers. (Tr. 2219, l. 10-25; Tr. 2220, l. 1-2)

We accept and incorporate this finding.

44. FPL received and evaluated 14 unsolicited proposals, including five gas-fired projects, plus the Cypress proposal. (Tr. 66, l. 13-16)

We accept in part, and reject in part, this finding because the transcript reference does not speak to "five gas-fired projects".

45. In its evaluation, FPL first applied an initial screening comprised of an avoided cost test and a pass/fail financial viability test to the 15 proposals. In the application of these tests, if a developer's fuel cost assumptions differed from FPL's, FPL substituted its own. (Tr. 99, l. 24-25; Tr. 100, l. 1-6; Tr. 101, l. 14-21))

We accept this finding in part, with the following clarification. The witness stated "Yes, in those cases, the financial viability test was done with both the developer's proposed prices and, where we detected a mismatch, we would substitute(d) our own forecast of fuel prices to get a different perspective on it."

46. The initial viability screening was similar to FPL's Exhibit 55 (Document 3), in which witness Waters assumed that Nassau Power's cost of natural gas would be equivalent to FPL's official base case forecast of future gas prices. (Tr. 2147, l. 16-19)

We reject this finding because the testimony cited has nothing to do with the initial viability screening.

47. Nine of the fifteen proposals failed FPL's initial avoided cost/viability screening. (Tr. 99, l. 16-19; Tr. 102, l. 1-7)

We accept and incorporate this finding.

48. By the time FPL applied environmental considerations to its evaluation, all six remaining proposals were coal-based projects. (Tr. 102, l. 21-25)

We accept and incorporate this finding.

49. FPL did not carry its 1991 generation expansion plan to completion because it regarded Cypress as cheaper than either the pulverized coal unit or the combined cycle unit it had identified as its alternative in its 1991 analyses. (Tr. 324, l. 8-14)

We reject this finding because the witness spoke of "planning assumptions," not the "1991 generation expansion plan".

50. In its evaluation of Cypress and the unsolicited proposals it received, FPL did not consider thermal efficiency as a basis or criterion for evaluations. (Tr. 73, l. 1-14)

We reject this finding as not relating to the transcript citation.

51. In its evaluation of Cypress and the unsolicited proposals it received, FPL did not consider the promotion of cogeneration as a basis for evaluation. (Tr. 73, l. 1-14)

We reject this finding as not relating to the transcript citation.

52. The 1991 evaluation was not a formal process; there was not an RFP issued. (Tr. 128, l. 25; Tr. 129, l. 1-2)

We accept and incorporate this finding.

53. Of the 15 projects FPL evaluated, 5 were gas-fired projects. (Tr. 99, l. 21-23)

We accept and incorporate this finding.

54. None of the five gas-fired projects passed the initial screening. (Tr. 102, l. 1-10)

We accept and incorporate this finding.

55. Consideration of Nassau Power's Okeechobee alternative will not erode developers' reliance on FPL's capacity selection methodology. (Tr. 128, l. 25; Tr. 129, l. 1-2; Tr. 2059, l. 1-11; Tr. 2221, l. 1-3)

We reject this finding because none of the testimony cited speaks to "developers reliance on FPL's capacity selection" or consideration of Nassau.

EFFICIENT GENERATION (Issue 26)

56. Nassau Power's advanced combined cycle design produces a heat rate of 7240 Btu/kwh, which is 27% lower than the heat rate of the proposed Cypress project. (Tr. 1307, l. 24-25; Tr. 1308, l. 1-3)

We accept in part this finding in that the heat rate is 7240 Btu/kwh.

57. In order to generate the same number of kilowatt hours produced by one Nassau Power unit at a level that would secure full capacity payments, Cypress would have to consume additional energy beyond that consumed by Nassau Power equivalent to 300,000 tons of coal per year or approximately 9 million tons of coal more energy to generate the same number of kilowatt hours over the life of the contract. (Tr. 1330, l. 1-10)

We accept and incorporate this finding.

PROMOTION OF COGENERATION (Issue 27)

58. Nassau Power's first 435 MW unit would be a cogeneration facility; a Qualifying Facility under PURPA regulations. (Tr. 1381, l. 24-25; Tr. 1382, l. 1-6)

We accept and incorporate this finding.

59. Cypress 832 MW project is not cogeneration, but is an independent power producer. [Ex. 11, p. 1-1]

We accept and incorporate this finding.

60. The Cypress contract is designed to consume FPL's additional need in 1998 and 1999 in its entirety. [Ex. 11, p. 1-1]

We accept this finding in part, if the words "in its entirety" are eliminated.

ATTACHMENT 2

SPECIFIC RULINGS ON LEGAL ENVIRONMENTAL ASSISTANCE FOUNDATION, INC. AND DEBORAH B. EVANS' PROPOSED FINDINGS OF FACT

ISSUE 1: RISK AND STRATEGIC CONCERNS

1. CEPL's has not finalized arrangements for start-up power from Glades Electric Cooperative. [T-408, L 13-19]

We accept and incorporate this finding.

2. Start-up power from Glades Electric Cooperative will require a 69 kV transmission line from Ft. Bassinger to the site, across the Kissimmee River and state highways. [T-422; T-482, L 23 to T-484, L 15; Ex. 47]

We reject this finding as unsupported by the greater weight of the evidence, with the exception that the transmission line will cross state highways. Cypress witness Ott testified that he was not sure whether the transmission line would cross the Kissimmee River. (Tr. 483, ll. 12-24) In addition, page 422 of the transcript does not discuss this subject at all.

3. CEPL has not researched title for, or applied for authorization for, the 69 kV transmission line. [T-409, L 17-22; T-1635, L 6-9]

We reject this finding as an argument rather than a finding of fact. Page 409 of the transcript does not discuss this subject at all. At page 1635, Cypress witness Day stated only that CEP's site certification did not contain "an associated facility of the Cypress-to-Fort Bassinger transmission line."

4. Under FPL's strategic criteria, CEP fares worse than combined cycle units and IGCC units. [T-229, L 15-20]

We reject this finding as an argument rather than a finding of fact.

5. FPL's strategic criteria are: protection of the environment; conservation of natural resources; customer retention/choice; economic risk to consumer; fuel flexibility; flexibility to respond

to changes in demand growth; operational flexibility; financial integrity of FPL; and regulatory uncertainty. [T-227, L 16 to T-229, L 13]

We accept and incorporate this finding with the clarification that these criteria are applied in a qualitative manner, rather than quantitative.

6. DSM and conservation are superior to CEP under FPL's strategic criteria. [T-854, L 8 to T-859, L 2; Ex. 6 (SSW-1), Petition Ex. 1, pages 74-77; T-2153, L 16 to T-2156, L 22]

We reject this finding as an argument rather than a finding of fact.

ISSUE 2: (CLEAN AIR ACT COSTS)

7. FPL did not evaluate all of the costs of Clean Air Act compliance in the CEP Petition. [T-801-803]

We accept and incorporate this finding with the clarification that FPL did consider the costs of SO_2. (Tr. 268, ll. 4-8) FPL also believed that, at the time it evaluated the proposals, the Clean Air Act amendments were in a "state of flux" and FPL was "not sure what regulations would come out and exactly what they would stipulate." (Tr. 81, ll. 8-12)

8. FPL's contract with CEPL requires renegotiation if Clean Air Act compliance costs from laws or rules enacted subsequent to the contract. [T-278, L 4-7; T-2153, L 6-8; Ex. 6 (SSW-2)]

We reject this finding as an argument rather than a finding of fact. FPL witness Waters stated that "Cypress maintains the responsibility to react to future legislation" and "[Cypress] would have to absorb costs for additional requirements beyond what we've allowed them in the contract for SO2, for example." (Tr. 278 ll. 5-12)

9. Further CAA regulations will affect CEP and other supply side options. [T-82, L 13-21]

We accept and incorporate this finding with the clarification that FPL witness Sim testified to his belief that further regulations

would "affect virtually any plant that would be built to fulfill a utility's capacity needs." (Tr. 82, ll. 18-21)

ISSUE 4: (ADEQUACY OF FORECAST)

10. In FPL's planning process it is critical to know how much cost-effective DSM is available before making a decision on a supply-side option. [T-242, L 23-25]

We accept and incorporate this finding.

11. FPL finished its 1992 load forecast in March-April 1992. [T-246, L 10-12]

We accept and incorporate this finding.

12. The Petition is based on FPL's 1991 load forecast. [T-217, L 20-24; T-245, L 12-22]

We accept and incorporate this finding.

13. FPL's 1991 load forecast included about 422 MW of incremental demand reductions from 1990-1999, based upon PSC Order 23560. [T-218, L 1-6]

We accept and incorporate this finding with the clarification that FPL's projection of 422 MW of demand reductions was based on its Demand Side Management Plan for the 90's, which was approved by the Commission in Order No. 23560 in Docket No. 900091-EG.

14. In FPL's 1991 planning process, DSM was rolled into the most likely load forecast, and that load forecast then served as the basis for new supply-side options. [T-242-243 & T-245]

We accept and incorporate this finding with the clarification that FPL considers it "critical to know how much cost-effective demand-side management was available before making a decision on a supply-side option." (Tr. 242, l. 23 to Tr. 243, l. 1). See proposed Finding of Fact Number 10.

15. FPL projected 1,058 MW of savings from ten conservation programs approved in Docket No. 900091-EG and 75 MW in savings from the six R & D projects authorized in the docket. [T-218 to T-219]

We reject this finding as unsupported by the greater weight of the evidence. FPL's conservation programs are projected to reduce demand by 422 MW between 1990 and 1999. (Tr. 218, ll. 1-3) Additionally, FPL witness Waters testified that "by 1999, FPL expects to have over 1,000 MW of demand reduction capability from load control programs." (Tr. 219, ll. 19-21) This transcript cite does not discuss exactly what is asserted in this proposed finding of fact.

16. The six R & D programs were: Residential Thermal Energy Storage Research Project, C/I Cold Air Distribution System Research Project; C/I Central Chiller System Research Project; C/I Heat Pipe Research Project; and C/I Water Heating Heat Pump Research Project. [T-213, L 6-10; Ex. 6 SSW-1, Petition, Ex.1 Table IV.C.1 (pages 64-65)]

We accept and incorporate this finding with the clarification that only five programs are listed in this finding of fact, and they are included among the six R & D programs listed in Exhibit 7 (FPL Petition for Need), pp. 64-5.

17. Of the six R & D programs, only the C/I Water Heating Heat Pump is depicted on Ex. 52. [Ex. 52]

We accept and incorporate this finding with the clarification that "of the six R&D programs" refers to the R & D programs listed in proposed Finding of Fact Number 16.

18. FPL treated its PSC-approved load management programs as supply-side resources in the 1991 planning process. [T-213; Ex. 6 SSW-1, Petition, Ex. 1, page 63]

We reject this finding as an argument rather than a finding of fact.

19. FPL's projected 75 MW of savings from R & D programs did not include the savings from the Revised HELP program. [T-213, L 6-10; Ex. 6 SSW-1, Petition, Ex. 1, Table IV.C.1 (Pages 64-65)]

We accept and incorporate this finding with the clarification that page 213, lines 6-10, does not address the above proposed finding of fact.

20. After FPL's 1991 load forecast, it filed conservation programs which accounted for the 75 MW of projected savings from the R & D programs. [T-260, L 4-24; T-261, L 7-22]

We accept and incorporate this finding.

21. The DSM plan used in the 1991 IRP Forecast, on which the need for CEP is premised, was developed in 1989, and was revised in June, 1990; the DSM savings projections are over two years old. [T-1946]

We accept and ircorporate this finding with the clarification that a major revision to FPL's demand side plan occurred in June of 1990. (Tr. 1946, ll. 24-5)

22. Cost-effective DSM programs were submitted to the PSC after the 1991 IRP, including the revised HELP program and three additional programs. [T-2021]

We accept and incorporate this finding.

23. The HELP program is not reflected in the most likely load forecast. [T-257; T-1932]

We accept and incorporate this finding.

24. FPL is also evaluating additional new cost-effective efforts that were not reflected in the DSM plan on which the IRP process was based. [T-2021]

We accept and incorporate this finding.

25. Although the projected MW savings from the HELP program were available in October 1991, (Hawk, T-1934), the approximately 95 MW of savings anticipated by 1999 was not reflected in the analysis of need. (T-1935)

We accept and incorporate this finding with the clarification that FPL's HELP program was not approved by the Commission until October 28, 1991, long after FPL's 1991 power planning study was completed.

26. FPL's HELP participation rate is ahead of FPL's projections. [T-1943-1944]

We accept and incorporate this finding.

27. Exhibit 52 reflects FPL's most recent estimate of projected savings from DSM programs by 1999 and is supplemental to projections in the need Petition. [T-1938]

We reject this finding as an argument rather than a finding of fact. Exhibit 52 is an August 1992 forecast of potential savings from FPL's concept programs which have not been implemented or approved by the Commission. This document was supplied by FPL pursuant to a document request; in no way can it be considered "supplemental to projections in the need Petition."

28. FPL projects savings of 84 MW (77 MW at the meter) from a new energy efficient commercial/industrial lighting program. [T-1941; Ex. 52]

We accept and incorporate with two clarifications: (1) the referenced 84 MW savings is not found in either given cite of the record; and (2) the referenced 77 MW savings at the meter is cumulative savings from 1990 to 1999.

29. FPL projects savings from programs which are not included in FPL's DSM plan and forecast of need--i.e., Ex. 52 #2, #10 & #14--but are estimated to provide an additional 28 MW (25.523 at the meter). [T-1939-1940; Ex. 52]

We accept and incorporate this finding with the clarification that Exhibit 52 forecasts potential savings from FPL's concept programs which have not been implemented or approved by the Commission. See proposed Finding of Fact Number 27.

30. Over 200 MW of DSM savings not included in the analysis supporting the CEP Petition has been identified by FPL. [Ex. 52]

We reject this finding as unsupported by the greater weight of the evidence. The cumulative savings from FPL's concept programs are forecasted to be only 194.8 MW. [Ex. 52]

31. FPL projects that over 22 MW of additional DSM savings will occur by 1998 as a result of programs covered by new program petitions for air cooled chillers, high efficiency split/package DX air conditioning, and efficiency motors [the last of which, with a projected savings of .679 MW, is noted in Exhibit 52, No. 14] which were not considered in the need assessment for CEP. [T-1879 to T-1880]

We reject this finding as unsupported by the greater weight of the evidence. The above proposed finding of fact is not discussed at the given transcript cite.

32. Seminole Electric Cooperative has notified FPL of its intent to eliminate 440 MW of FPL capacity in 1999. [T-244, L 4-18; T-343, L 6-15]

We accept and incorporate this finding with two clarifications: (1) Seminole receives capacity from FPL under a partial requirements service contract, so the 440 MW is considered a load to FPL's system; (2) FPL witness Waters testified that "it's not a foregone conclusion that load will be gone from FPL's system." (Tr. 244, ll. 16-18)

33. FPL's loss of Seminole Electric Cooperative's load would reduce FPL's need for 1999 capacity. [T-344, L 9-17]

We accept and incorporate this finding.

ISSUE 5: (TIMING OF NEED)

34. Additional DSM available would permit FPL to maintain the reserve margin it anticipates without adding any new supply in 1998. [T-879-880]

We reject this finding as an argument rather than a finding of fact.

35. FPL could have a new IRP, reflecting the additional cost-effective DSM that is available, to the PSC within six months. [T-943; T-946; T-2012]

We accept and incorporate this finding.

36. The acquisition of additional DSM resources could economically delay the need for CEP. [T-731]

We reject this finding as an argument rather than a finding of fact.

37. FPL projects over 200 MW of DSM savings by 1999 which were not included in its analysis of need for CEP. [Ex. 52]

We reject this finding as unsupported by the greater weight of the evidence. This proposed finding of fact is repetitive of proposed finding Number 30.

38. Additional DSM would allow FPL to maintain its reserve margin without adding new supply in 1998. [T-879-880]

We reject this finding as an argument rather than a finding of fact. This proposed finding of fact is repetitive of proposed finding Number 34.

ISSUE 6: (TIMING OF PETITION)

39. The Petition is not based upon an up-to-date IRP; FPL omitted a wide range of economical conservation options, including three C/I programs which FPL recently filed for PSC approval. [T-741]

We reject this finding as an argument rather than a finding of fact with the exception that FPL's IRP omitted three C/I conservation programs which the Commission recently approved.

40. FPL's annual planning process runs roughly from January, when work on assumptions is begun, through September/October, when a final plan is developed. [T-243]

We accept and incorporate this finding.

41. All of FPL's 1991 planning assumptions were updated in FPL's 1992 planning study. [T-230, L 11-15]

We reject this finding as unsupported by the greater weight of the evidence. At page 230, lines 11-15, FPL witness Waters stated that FPL's 1991 planning assumptions were updated in the January through April 1992 time period, and that "a planning study is currently underway using these new assumptions."

42. FPL's 1992 resource planning study will be ready in September or October 1992. [T-253]

We accept and incorporate this finding.

43. FPL's 1992 resource planning study uses a new EPRI computer program - the Electric Generation Expansion Analysis System (EGEAS). [T-255, L 5-25]

We accept and incorporate this finding.

44. FPL's EGEAS analysis is more comprehensive and thorough than FPL's 1991 planning methods. [T-250, L 9-16; T-255, L 14]

We accept and incorporate this finding.

45. FPL's EGEAS analysis allows FPL to "optimize" demand-side and supply-side programs together. [T-250, L 10-16; T-254, L 3 to T-255, L 5-14]

We accept and incorporate this finding.

46. A smaller project might be a better buy for FPL customers on a per unit basis. [T-72, L 5-6]

We reject this finding as an argument rather than a finding of fact. The discussion at page 72 is about FPL's project proposal selection process, in which six projects made the final stage of analysis. FPL witness Sim testified that:

> "The final adjustment was to remove and 'size advantage' that might exist. . . This analysis allowed FPL to see if a larger project's greater total system savings might primarily be due to its greater size. A smaller project might be a better 'buy' for FPL's customers on a 'per unit' basis." (Tr. 72, ll. 1-6) (emphasis added)

ISSUE 9: NO ADVERSE CONSEQUENCES

47. FPL can use its Martin site to meet FPL's projected 1998-1999 need using combined cycle units, or perhaps pulverized coal. [T-237, L 14-16; T-268, L 19 to T-269, L 11]

We reject this finding as unsupported by the greater weight of the evidence, with the exception that FPL can use its Martin site to meet its 1998-1999 need using only combined cycle units. FPL witness Waters testified that the lead time required to permit and build a pulverized coal "from scratch" might be too long to meet the identified need. (Tr. 268, l. 25 to Tr. 269, l. 11)

48. A supply option smaller than CEP, along with increased DSM might be a better buy for FPL. [T-83, L 1-5]

We accept and incorporate this finding with the clarification that FPL witness Sim stated that such a scenario is "theoretically" possible but FPL was not aware of such a combination that would be more cost-effective than Cypress. (Tr. 83, ll. 1-7)

ISSUE 17: CONSERVATION

49. Existing Florida building codes are not optimal for energy efficiency. [T-1974, L 6 to T-1975, L 10; T-1902, L 14-18]

We accept and incorporate this finding with the clarification that FPL witness Hawk stated that the building codes are "adequate but not optimal" (Tr. 1974, ll. 8-9), and that "there's always room for improvement." (Tr. 1975, l. 4)

50. FPL has not evaluated building code compliance, nor has FPL reviewed any analysis of compliance with building codes within its service area. [T-1990, L 8-12]

We reject this finding as an argument rather than a finding of fact. At page 1990, ll. 8-12, FPL witness Hawk affirmatively

answered the following question: "Not to belabor the point, but you have already stated that the building codes aren't optimal and you have no data on the level of compliance with those codes, is that correct?"

51. FPL has failed to develop a number of cost-effective DSM programs based upon its reliance on existing building codes. [T-1875, L 20-24; T-1876, L 3-6; T-1896, L 3-5]

We reject this finding as unsupported by the greater weight of the evidence. The subject of this proposed finding is not found at any of the above transcript cites.

52. FPL's window treatment program is one existing conservation program that may exceed the building code. [T-1974, L 2-5]

We accept and incorporate this finding.

53. In addition to the DSM reflected in FPL's current IRP, the company could acquire 361 MW of additional DSM by 1998 (426 MW by 1999) and thereby save an additional 3,200 gigawatt hours of generation, which is roughly equivalent to the annual output of one of the CEP units. [T-878, L 5-8; T-879 1-8; T-847, L 19 to T-848, L-6; Ex. 22 (JJP-12)] (revised).

We reject this finding as an argument rather than a finding of fact.

54. The additional DSM savings available could be achieved by FPL beginning in 1993--a "substantial percentage" in 1993, with any shortfall obtained in 1994 and 1995. [T-943, L 8 to T-945, L 23]

We reject this finding as an argument rather than a finding of fact.

55. Additional DSM savings can be achieved if FPL adopts a market-based, comprehensive approach to DSM planning and acquisition. [T-847]

We reject this finding as an argument rather than a finding of fact.

56. If FPL increased participation in its Commercial/Industrial Lighting program to 20% of eligible customers in 1993, a reasonable level for an aggressive program, it would yield 141 MW of savings by 1999. [T-850, L 7-21; T-853-854]

We reject this finding as an argument rather than a finding of fact.

57. If FPL initiates a cost-effective new construction program for residential customers comparable to the Title 24 programs offered by California utilities, which should save at least 10% of new home usage, yielding another 67 MW of demand savings to FPL. [T-850-854]

We reject this finding as an argument rather than a finding of fact.

58. That there is a substantial amount of DSM reasonably available to mitigate the need for FPL's proposed plant is demonstrated by two things: (1) the company's economic screening is biased against energy saving DSM, thereby limiting its acquisition; and (2) the company's inadequate DSM acquisition strategies, including omissions of conservation market sectors, end uses and measures, as well as weak and piecemeal program designs that limit participation and energy savings. [T-876-877]

We reject this finding as an argument rather than a finding of fact.

59. FPL's participation rates for its Commercial/Industrial programs, excepting Load Management, range from less than 1% to 2%, and FPL projects the same percentages through 1999. [Ex. 20, JJP-11]

We accept and incorporate this finding with the clarification that this information was taken from FPL's Demand Side Management Plan for the 90's.

60. Refrigeration is the second largest contributor to summer peak residential load, but FPL does not have a conservation program for that end use. [T-1976; E. 51 (NGH-1), (NGH-6)]

We accept and incorporate this finding.

61. FPL's Sarasota office, opened in June 1991, uses thermal energy storage, high efficiency indirect interior ambient lighting, exterior overhangs and sun louvers to reduce solar heat gain, advanced direct digital control energy management system and a standby generator to demonstrate cost-effective energy efficient C/I systems. [T-1996-1997; Ex. 53]

We accept and incorporate this finding.

62. FPL's Sarasota office design reduces the cooling peak load by 74 kw and cuts the interior lighting requirements (up to 30% or an office's energy consumption) by 45%-63% (from 2 to 3 watts per square foot to 1.1), saving over $10,000 in cooling costs and $28,000 in lighting costs. [Ex. 53]

We accept and incorporate this finding.

63. FPL does not have C/I customer conservation programs for all of the efficiency measures used in its Sarasota office. [Ex. 52; Ex. 6 (SSW1)]

We accept and incorporate this finding.

64. FPL does not have approved programs, but projects savings, from many end-uses: residential lighting, room air conditioners and other appliances, C/I water heating, industrial process efficiency improvements, efficient motors, some C/I lighting measures, HVAC controls, and second refrigerators. [T-1915, L 6 to T-1918, L 7; Ex. 52, Ex. 53]

We accept and incorporate this finding.

65. FPL did not perform an analysis of the rate or bill impacts of JJP-12 (revised). [T-2026, L 1-4; Ex. 22]

We accept and incorporate this finding with the clarification that revised exhibit JJP-12 was not available to FPL until the hearing.

ISSUE 22: (ADEQUACY OF FPL'S DSM EFFORTS TO MITIGATE NEED)

65. After the DSM plan on which the need for CEP is based was included in the FPL planning process, FPL submitted for Commission

approval a revised HELP program and three additional C/I programs that are cost-effective. [T-2021]

We accept and incorporate this finding.

66. The DSM plan on which the need for CEP is based was filed in February 1990, revised in June 1990 and approved by the PSC in October 1990. [T-2023]

We accept and incorporate this finding with the clarification that the need for CEP was based on a power planning study, only part of which included a DSM plan.

67. FPL's 1991 peak reduction as a percentage of capacity is less than Florida Power Corp, Tampa Electric Co., and Gulf Power Corp. and FPL's average rates (cents/kWh) are higher. [Ex. 51, NGH-2]

We accept and incorporate this finding.

68. FPL did not submit an analysis of the composite system impacts or the deferral or avoidance of new supply-side resources of all of its approved conservation programs (as of May 22, 1992) in this docket. [Petition, pp. 11-12, Pet. Ex. 1 pp. 14-17 and pp.62-65; T-1934, L 10-T to T-1935, L 12; T-1879, L 24 to T-1880, L 2; T-2023]

We reject this finding as being vague. We are unable to understand the meaning of this proposed finding.

69. FPL eliminated its appliance efficiency programs in the mid-1980's due to the adoption of new appliance efficiency standards. [T-1903, L 11-23]

We accept and incorporate this finding with the clarification that the new efficiency standards were adopted by state and federal authorities. (Tr. 1902, 11. 21-23)

70. Existing appliance standards are not optimal for energy efficiency. [T-1976, L 22-25; T-1978, L 4-10]

We accept and incorporate this finding with the clarification that the above transcript cites refer to the opinion of FPL witness Hawk and to the SRC Phase I conservation study.

71. The recent Florida Energy Office Phase 1 DSM Potential Study recommends that "Florida utilities be encouraged to develop and implement appliance efficiency standards". [T-1978, L 4-10]

We accept and incorporate this finding.

72. FPL's failure to develop and implement cost-effective appliance efficiency programs is unreasonable since programs were deleted based upon non-optimal standards.

We reject this finding as an argument rather than a finding of fact.

73. FPL's reliance upon the building code to preclude development of additional cost-effective DSM programs is unreasonable since the codes are not optimal and FPL has no information on actual code compliance. [T-1990; T-850; T-732-735]

We reject this finding as an argument rather than a finding of fact.

74. FPL has no program for residential new construction to encourage energy efficient building. [T-850]

We reject this finding as an argument rather than a finding of fact.

75. FPL has not reasonably implemented all conservation measures included in its approved conservation plan or reasonably considered conservation measures that might mitigate the need for CEP. [T-732 to T-735, L 6; Ex. 52; Ex. 53]

We reject this finding as an argument rather than a finding of fact.

76. FPL's alleged need for CEP capacity did not account for all conservation programs which FPL forecasts will provide capacity deferral benefits by 1998. [Ex. 52; T-1938, L 1; T-1941, L 23; T-1980, L 9-17]

We accept and incorporate this finding with the clarification that the programs cited above are FPL's concept programs which are under study, and have not been implemented or approved by us.

77. Individual DSM programs are evaluated under the RIM test, but FPL's aggregate DSM plan was not. [T-1953-1954]

We accept and incorporate this finding.

78. In evaluating programs for its current DSM plan, if a program failed the RIM test, FPL stopped its analysis. [T-1956]

We accept and incorporate this finding.

79. FPL considers DSM "cost-effective" only if it passes the RIM test. [T-1970]

We reject this finding as an argument rather than a finding of fact. At page 1970, FPL witness Hawk simply states that, unless he stated differently, the phrase "cost-effective" meant cost effective under the RIM test.

80. FPL uses the RIM test to pre-screen potential conservation programs. [T-1956, L 6-11]

We accept and incorporate this finding. This proposed finding of fact is repetitive of proposed finding Number 78.

81. FPL's solar water heating program is the only instance of a program that failed the RIM test; but is included in FPL's conservation plan because of the PSC directive to help the solar industry. [T-1957, L 3-11]

We accept and incorporate this finding.

82. FPL doesn't have a residential refrigeration program primarily because of lost revenue concerns. [T-1976]

We accept and incorporate this finding with the clarification that, in addition to lost revenue concerns, FPL witness Hawk testified that "appliance standards that are now part of the National Appliance Energy Conservation Act address this are very handily." (Tr. 1976, ll. 16-21)

83. FPL does not have conservation programs for all of the measures employed at its Sarasota office. [T-1997]

We accept and incorporate this finding. This proposed finding of fact is repetitive of proposed finding Number 63.

84. FPL has rejected HVAC controls as an efficiency measure because savings benefits are difficult to quantify. [T-1998]

We reject this finding as unsupported by the greater weight of the evidence. At page 1998, FPL witness Hawk testified that although FPL has explored HVAC controls as an efficiency measure, he's not exploring them at this time; he never stated that he has rejected the measure.

85. FPL's Petition was based upon FPL's DSM plans approved in PSC Order 23560. [T-218, L 1-5]

We accept and incorporate this finding.

86. The conservation programs alleged in the Petition were not evaluated against CEP as an avoided unit. [T-1954, L 5 to T-1955, L 8; T-1973, L 21-25; T-1981, L 15-25; T-258, L 16 to T-259, L 13]

We accept and incorporate this finding.

87. The conservation programs alleged in the Petition were evaluated against a mix of avoided units with in-service dates from 1992-1996. [T-258, L 16 to T-259, L 4]

We accept and incorporate this finding.

88. The QF/IPP supply side options to CEP that FPL considered were evaluated against a 907 MW IGCC with an in-service date of 1998. [T-78, L 17-19]

We accept and incorporate this finding.

89. The proposed CEP is a baseload plant. [T-1971, L 10-13]

We reject this finding as an argument rather than a finding of fact. The subject of this proposed finding is not found at the above transcript cite.

90. FPL's conservation programs are primarily targeted toward peak demand reduction rather than per capita energy consumption. [T-2004, L 4-11; T-1874, L 20-22; T-1877, L 19-20]

We reject this finding as an argument rather than a finding of fact.

91. There are several deficiencies in FPL's DSM planning that preclude full implementation of DSM resources: (1) FPL's economic screening of DSM is biased against conservation; (2) its DSM plan omits market segments, end-uses and measures that would provide cost-effective savings; and (3) its DSM program designs are too weak to overcome the market barriers to customer investment in cost-effective efficiency measures. [T-732-734; T-796-797]

We reject this finding as an argument rather than a finding of fact.

92. FPL overemphasizes peak demand savings, and its DSM program participation goals show that its planning is not sufficiently ambitious. [T-797]

We reject this finding as an argument rather than a finding of fact.

93. FPL's program participation figures show that conservation efforts are not ambitious: in the C/I Load Control program the market penetration is 100% and, by contrast, in 1991 the water-cooled chiller program will not even reach 1% of eligible customers, and the C/I Efficient Lighting and Residential Water Heating programs will have reached only 2% of their target markets. [T-844-845; Ex. 20 (JJP-11)]

We reject this finding as an argument rather than a finding of fact.

94. The piecemeal nature of FPL's DSM program plans reduce DSM savings and raise delivery costs unnecessarily. [T-734; T-838-840]

We reject this finding as an argument rather than a finding of fact.

95. To maximize DSM benefits, a utility DSM portfolio must be comprehensive in terms of the customer audiences/market segments targeted, the end-uses and technologies treated, and the types of assistance provided (technical and financial). [T-751]

We reject this finding as an argument rather than a finding of fact.

96. FPL's DSM portfolio is not comprehensive because it leaves untapped important DSM market segments, end-uses, and DSM measures. [T-812-813]

We reject this finding as an argument rather than a finding of fact.

97. FPL's untapped DSM market segments, end-uses and measures offer cost-effective energy and peak savings that could delay the need for new capacity and reduce costs to ratepayers. [T-813]

We reject this finding as an argument rather than a finding of fact.

98. DSM market segments missing from FPL's DSM plans include residential new construction, residential appliance purchases, and C/I renovation/remodeling -- especially important segments because failure to address them results in lost opportunities to capture energy savings cost-effectively. [T-813-814]

We reject this finding as an argument rather than a finding of fact.

99. Although FPL offers a few programs that address some lost opportunity market segments, with the possible exception of the residential HVAC program, they are poorly designed and are unlikely to gain the DSM savings the market segments offer. [T-815; 818-820]

We reject this finding as an argument rather than a finding of fact.

100. FPL's DSM programs fail to offer efficiency measures for the following end-uses: residential lighting through direct installation, catalogue sales, and point-of-sale rebates; room air conditioners and other appliances; C/I water heating; motors; refrigeration and cooking equipment; and industrial process efficiency improvements. [T-824-825]

We agree and incorporate this finding with the clarification that the proposed finding of fact refers to existing programs. Some of the above end-uses are the subject of R & D programs.

101. FPL's DSM programs fail to offer measures that can provide substantial savings, including: low-cost water heating measures; several C/I lighting measures; HVAC controls; second refrigerator removal; and C/I thermal integrity retrofit. [T-825-826; Ex. 52]

We reject this finding as unsupported by the greater weight of the evidence. Nothing in the record indicates that the above mentioned program provides substantial savings. Furthermore, many of the programs are currently being researched by FPL for potential future implementation. [Ex. 52]

102. FPL's program delivery strategies are inadequate to capture all cost-effective savings due to insufficient incentives, insufficient direct installation mechanisms, and fragmented treatment of market segments. [T-829]

We reject this finding as an argument rather than a finding of fact.

103. FPL's conservation planning excluded a wide range of DSM resource alternatives which could provide a reliable, efficient and cost-effective means to serve FPL's customers. [T-729]

We reject this finding as an argument rather than a finding of fact.

104. To maximize DSM benefits, a utility DSM portfolio must be comprehensive in terms of the customer audiences/market segments targeted, the end-uses and technologies treated, and the types of assistance provided (technical and financial). [T-751]

We reject this finding as an argument rather than a finding of fact.

105. FPL's untapped DSM market segments, end-uses and measures offer cost-effective energy and peak savings that could delay the need for new capacity and reduce costs to ratepayers. [T-813]

We reject this finding as an argument rather than a finding of fact.

106. DSM market segments missing from FPL's DSM plans include residential new construction, residential appliance purchases, and C/I renovation/remodeling -- especially important segments because failure to address them results in lost opportunities to capture energy savings cost-effectively. [T-813-814]

We reject this finding as an argument rather than a finding of fact. This proposed finding is an exact duplicate of proposed finding Number 98.

107. Although FPL offers a few programs that address some lost opportunity market segments, with the possible exception of the residential HVAC program, they are poorly designed and are unlikely to gain the DSM savings the market segments offer. [T-815; 818-820]

We reject this finding as an argument rather than a finding of fact. This proposed finding is an exact duplicate of proposed finding Number 99.

108. FPL's does not to offer efficiency measures for the following end-uses: residential lighting through direct installation, catalogue sales, and point-of-sale rebates; room air conditioners and other appliances; C/I water heating; motors; refrigeration and cooking equipment; and industrial process efficiency improvements. [T-824-825; Ex. 52]

We reject this finding as an argument rather than a finding of fact. This proposed finding is an exact duplicate of proposed finding Number 100.

109. FPL's DSM programs fail to offer measures that can provide substantial savings, including: low-cost water heating measures; several C/I lighting measures; HVAC controls; second refrigerator removal; and C/I thermal integrity retrofit. [T-825-826; Ex. 52]

We reject this finding as an argument rather than a finding of fact. This proposed finding is an exact duplicate of proposed finding Number 101.

ISSUE 18

110. CEP's net benefits are overstated because DSM properly evaluated would cost less than CEP. [T-880]

We reject this finding as an argument rather than a finding of fact.

111. Supply options are not evaluated by FPL with the RIM test. [T-274, L 25]

We agree and incorporate this finding with the clarification that FPL witness Waters stated the RIM test is not a relevant method to evaluate supply-side options. (Tr. 274, l. 25)

111. CEP has not been compared with DSM programs in terms of total system emissions or protection of the environment. [T-276]

We agree and incorporate this finding.

ISSUE 19: (APPROPRIATENESS OF FPL'S EVALUATION PROCESS)

112. FPL does not evaluate the customer bill impacts of programs that fail the RIM test but pass the TRC test. [T-1971]

We agree and incorporate this finding with the clarification that FPL did perform such an analysis based on the data in LEAF witness Plunkett's testimony. (Tr. 1971, ll. 16-18)

113. The RIM test does not measure customer bill impacts. [T-1972]

We agree and incorporate this finding.

114. The planning process on which the need for CEP is based was biased against conservation in at least three ways: (1) it used the RIM test as an economic screen for DSM (applying a "no losers" analysis only on the demand side); (2) it undervalued the benefits of DSM resources by not including the environmental costs of avoided supply; and (3) it understated the Clean Air Act Amendments' compliance costs for CEP. [T-734; T-798-805]

We reject this finding as an argument rather than a finding of fact.

115. The total resource cost (TRC) test is the appropriate test for screening DSM option; the RIM test should not be used as a screen because its use leads to the rejection of measures that would be economical from a societal perspective. [T-746]

We reject this finding as an argument rather than a finding of fact.

116. The goal of Integrated Resource Planning is to minimize the total system costs of providing electricity, and minimizing total costs requires utilities to explore fully and develop adequately all viable and cost-effective alternatives to proposed capacity. Otherwise the utility could simply neglect reasonable resource options by failing to develop them sufficiently for proper consideration. [T-742-743]

We reject this finding as an argument rather than a finding of fact.

117. FPL's avoided costs do not account for environmental externalities and, therefore, undervalue DSM. [T-805-811]

We reject this finding as an argument rather than a finding of fact.

ISSUE 23: PERMITTING RISK

118. Prospective CEP mercury emissions present great risk in environmental permitting because of proximity to the Everglades ecosystem. [T-570, L 2-15]

We reject this finding as an argument rather than a finding of fact. DER witness Oven stated that "because of the proposed location of the Cypress facility adjacent to Lake Okeechobee, it is anticipated that questions will be raised relative to the expected mercury emissions from the facility in proceedings before the siting board." (Tr. 570, ll. 11-15) Nowhere in this citation is there a reference to any "great risk" in permitting.

119. CEPL has only recently begun to evaluate compliance issues related to mercury emission control technology and mitigation for the destruction of habitat for the Florida Grasshopper Sparrow, an endangered species. [T-1531, L 3-23; T-1532, L 14-20; T-1641, L 2-10; T-1669, L 4-25; T-403, L 7 to T-405, L 1]

We reject this finding as irrelevant.

120. Much of the CEP site is wetlands. [Ex. 47 (Vol 2. Ex. F)]

We reject this finding as irrelevant.

121. CEP will discharge stormwater to surface waters; the Kissimmee River and/or Lake Okeechobee. [T-595, L 10-13; Ex. 47 Vol.2)]

We reject this finding as irrelevant.

ISSUE 24: (COMPARABILITY OF COMPARISON OF DSM & SUPPLY)

122. The additional DSM savings identified by Mr. Plunkett that could be obtained by FPL fare very well under each of FPL's nine strategic criteria, in comparison with supply options. [T-857-862]

We reject this finding as an argument rather than a finding of fact.

123. It would take FPL six to nine months to prepare a new integrated resource plan. [T-2011, L 5-9; T-736, L 16-18]

We accept and incorporate this finding. This proposed finding of fact is repetitive of proposed finding Number 35.

124. The demand side management forecast is one of the five most critical assumptions in FPL's planning process. [T-217, L 3,7]

We accept and incorporate this finding.

125. FPL's thermal storage program reduces summer peak demand but increases per capita energy consumption for participants. [T-1971, L 5-10]

We accept and incorporate this finding.

ISSUE 31: STANDING

126. A substantial number of LEAF's members are affected by the proposed CEP. [T-553-557]

We reject this finding as unnecessary to decide the factual matters at issue in this case.

ISSUE 36: EXTERNALITIES

127. The costs and benefits of environmental externalities can be reasonably quantified. [T-809, L 20-23; Ex. 20 (JJP-8,10); T-1793, L 1-5]

We reject this finding as unsupported by the greater weight of the evidence. In addition, the citation to page 1793 does not discuss the subject of this proposed finding.

128. Consistency of FPL's conservation plan has not been shown with the State Comprehensive Plan.

We reject this finding because there is no citation to the record.

129. Many states have incorporated the costs and benefits of environmental externalities into utility plan approval. [Ex. 20, (JJP-8)]

We agree and incorporate this finding.

130. No decline in environment has been attributed to state utility commission consideration of costs and benefits of externalities. [T-1845-1846]

We reject this finding as an argument rather than a finding of fact. At page 1846, lines 1-3, FPL witness Wile testified that he was not sure whether any degradation or improvement to the environment could be attributed to programs in four states.

131. Externalities can include water and land use, in addition to emissions. [Ex. 20 (JJP-8)]

We reject this finding because there is no specific citation to the record. In addition, we do not understand the meaning of the phrase "externalities can include water and land use".

132. Florida's power plants consume large amounts of groundwater and CEP may use up to 11 million gallons per day. [T-1676; Ex. 47]

We reject this finding as unsupported by the greater weight of the evidence. Without a page citation, we are unable to find the statement in Exhibit 47, which is CEP's Site Certification filing to DER. The citation to page 1676 refers to where Cypress placed Exhibit 47 into the record at the hearing.

133. Human consumption of food fish in the Everglades region is already limited due to health concerns over mercury. [T-16; T-582-583]

We accept and incorporate this finding.

134. Florida panthers, which number about sixteen, are adversely affected by mercury contamination. [T-16, L 6-15]

We reject this finding as an argument rather than a finding of fact.

135. Least cost planning that includes costs of environmental externalities received citizen support. [T-12, L 220-22; T-17, L 19-25]

We reject this finding as unsupported by the greater weight of the evidence. Nowhere in these citations is there any reference to the proposed finding of fact.

136. The PSC must decouple rates from energy sales to encourage energy conservation. [T-18, L 11-16; T-24, L 11-20]

We reject this finding as an argument rather than a finding of fact.