**FLORIDA PUBLIC SERVICE COMMISSION**

Fletcher Building

101 East Gaines Street

Tallahassee, Florida 32399-0850

**M E M O R A N D U M**

October 28, 1993

**TO:** DIRECTOR, DIVISION OF RECORDS AND REPORTING

**FROM:** DIVISION OF ELECTRIC AND GAS [HAFF, FUTRELL]

DIVISION OF LEGAL SERVICES [ELIAS, BROWN]

**RE:** DOCKET NO. 930196-EQ, PETITION TO DETERMINE NEED FOR PROPOSED CAPITAL EXPANSION PROJECT OF THE DADE COUNTY RESOURCES RECOVERY FACILITY, AN EXISTING SOLID WASTE FACILITY, BY METROPOLITAN DADE COUNTY

**AGENDA:** 11/9/93 - REGULAR AGENDA

POST-HEARING DECISION - Participation is limited to Commissioners and Staff

**CRITICAL DATES:** NONE

**SPECIAL INSTRUCTIONS:** Location of File: I:\PSC\EAG\WP\930196.RCM

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**CASE BACKGROUND**

On February 26, 1993, Metropolitan Dade County (Dade County) petitioned the Commission for a determination of need to expand its existing solid waste facility. In an effort to meet increasing challenges to solving its growing solid waste problem, Dade County originally petitioned to add two waste-fired boilers at its existing site. Scheduled to be placed into service in 1997, the boilers would have consumed nearly 468,000 tons of solid waste per year and increased the existing facility's net output by about 65 MW. The Commission set aside hearing dates for May 19-20, 1993.

Pursuant to a subsequent agreement with the Okeelanta cogeneration facility in West Palm Beach, Dade County will process and transport 234,000 tons per year of solid waste to Okeelanta where it will be burned as a supplemental fuel. Thus, the amount of waste used to fuel Dade County's planned facility expansion will be cut in half, resulting in a modified petition to add only one 33 MW waste-fired boiler in 1997. Consequently, the Commission set new hearing dates for August 24-25, 1993.

Dade County's existing solid waste facility has a net output of approximately 60 MW. Although located in Florida Power and Light's (FPL) service territory, the facility provides 43 MW of firm capacity and energy to Florida Power Corporation (FPC) pursuant to an existing, Commission-approved power purchase agreement (Order No. 24374, Docket No. 910401-EQ). The new boiler will be capable of increasing the facility's net export capability by 33 MW, to 93 MW. Dade County will install a dump condenser to limit the electrical output of the overall facility to 80 MW, thereby reducing the net output of the new boiler from 33 MW to 20 MW. The 80 megawatt limit is a requirement imposed by the Federal Energy Regulatory Commission (FERC) on small power facilities in order that they maintain their qualifying facility (QF) status.

Dade County's witnesses were Tanhum Goldshmid, from Dade County's Solid Waste Management Department; Kennard Kosky, an expert on the permitting of solid waste-fired facilities; and Charles Strong of Montenay Power Corporation. Staff's witness was Robert Dolan, Cogeneration Projects Manager at FPC. No party intervened in this proceeding, although Bonnie Barnes‑Kelley of the Florida Sierra Club, and Debra Swim of the Legal Environmental Assistance Foundation offered sworn public testimony.

The ultimate issue in this case is whether Dade County's petition meets the statutory requirements of Section 403.519, Florida Statutes, which charges the Commission with consideration of the following criteria when determining the need for an electrical power plant:

the need for electric system reliability and integrity;

the need for adequate electricity at a reasonable cost;

whether the proposed plant is the most cost-effective   
 alternative available; and

conservation measures taken by or reasonably available to  
 mitigate the need for the proposed plant.

In determining the need for a solid waste facility, the Commission also considers Section 377.709, Florida Statutes, which provides that:

the combustion of refuse by solid waste facilities to supplement the electricity supply not only represents an effective conservation effort but also represents an environmentally preferred alternative to conventional solid waste disposal in this state.

**DISCUSSION OF ISSUES**

**ISSUE :** Does the state have a need for the additional energy to be

generated from Dade County's expanded solid waste facility?

**RECOMMENDATION:** Yes. Energy sold by this facility will displace the use of fossil fuels.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes.

**STAFF ANALYSIS:** Energy generated by Dade County's expanded facility will meet two needs: displace fossil fuels and reduce the amount of garbage through combustion of solid waste. The new boiler is expected to provide an additional 140 gigawatt-hours (GWh) per year assuming an 80% capacity factor. Since the facility is located in Florida Power and Light Company's service territory, Dade County will likely sell the energy to FPL. Since there is no contract to sell firm capacity, the Dade County facility will likely sell energy on an as-available basis to FPL; this energy will displace fossil fuels in Florida. For this reason, staff recommends that the state has a need for the incremental amount of additional energy to be generated from Dade County's expanded solid waste facility.

**ISSUE :** What associated facilities are required in conjunction with

Dade County's expanded solid waste facility?

**RECOMMENDATION:** Associated facilities will include new fuel supply facilities, a dump condenser to regulate the steam supply to the generator, and additional electrical equipment to connect the new generator to FPL's system.

**POSITION OF THE PARTIES**

**DADE COUNTY:** The expansion of the Facility includes a fuel delivery conveyor system, a crane system for loading fuel, and a charging hopper which regulates the flow of fuel into the boiler. The expansion also includes additional switchgear -- conductor, transformer(s), and metering equipment. The facility's interconnection with FPL's system will remained unchanged.

**STAFF ANALYSIS:** Associated fuel supply facilities will include a new fuel delivery conveyor system, which will deliver fuel from the solid waste processing area to a fuel storage pit located near the new boiler. An overhead crane system will scoop fuel out of the pit and load it into a charging hopper located at the mouth of the new boiler. The charging hopper, a kind of storage area which holds the fuel being fed into the boiler, ensures a continuous, regulated supply of fuel with no interruption [TR 55]. If the fuel supply were to be interrupted, the charging hopper would hold enough fuel to supply the boiler for about two hours [TR 69].

Associated facilities will also include a dump condenser, a unit that takes excess steam diverted from the turbine, condenses it, and delivers it to the cooling system to be dissipated into the environment [TR 56]. The dump condenser will allow the boiler to continue burning solid waste during the periods when electrical output exceeds 80 MW or when FPL's system might not be able to receive power from the facility [TR 55-7]. The Federal Energy Regulatory Commission (FERC) has imposed the 80 MW export limitation on facilities that wish to maintain their qualifying facility (QF) status.

Associated electrical facilities will include a new switchyard module, consisting of a transformer and a conductor, which will connect the new generator to the existing interconnection with FPL's system [TR 162].

**ISSUE :** Has Dade County provided sufficient information on the site,

design, and engineering characteristics of the expanded solid waste

facility to evaluate its proposal?

**RECOMMENDATION:** Yes.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes.

**STAFF ANALYSIS:** Sufficient information on the site, design and engineering characteristics of Dade County's facility was provided through discovery and by the testimony and exhibits of Dade County's three witnesses [EXH 2-5, 7-9].

**ISSUE :** Will Dade County's expanded solid waste facility contribute

to the reliability and integrity of the state's electric system?

**RECOMMENDATION:** No. The expanded solid waste facility will offer no positive contribution to system reliability and integrity. Without a contractual commitment to sell firm capacity, there is no way to measure the impact on reliability.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes. The expansion of the Metropolitan Dade County's Resources Facility will make additional capacity available and will enhance the overall availability and reliability of the RRF, providing a slight positive contribution to the reliability and integrity of the state's electric system, particularly in southeast Florida.

**STAFF ANALYSIS:** Dade County has not committed to sell firm capacity pursuant to a Commission-approved contract. Dade County has only stated that it might sell as-available energy from its expanded facility. Because there are no plans to sell firm capacity, there is no way to analyze any effect on the state's reliability and integrity due to Dade County's energy sales.

From its existing facility, Dade County sells 43 MW of firm capacity and energy to FPC pursuant to an existing, Commission-approved cogeneration contract. Mr. Dolan testified on the past operation of the Dade County facility and its negative impact on the stability of FPC's electric system. Mr. Dolan stated that Dade County's output fluctuates numerous times within one hour, at times swinging from 50 megawatts to zero and back [TR 116]. Although the facility is located in Dade County, in FPL's service territory, the fluctuations are felt in FPC's control area. In response to these fluctuations, FPC must either start and stop, or ramp up and down, its own generating units in order to supply electricity to stabilize its system [TR 116-7]. Mr. Dolan knew of at least two times during 1992 when FPC started up its peaking units to stabilize its system solely due to the fluctuations [TR 129]. Exhibit RDD-3 of Mr. Dolan's testimony compares the electrical output of the Dade County facility, including output fluctuations, and the Pasco County solid waste-fired facility for an eight-hour period [EXH 6]. This exhibit shows a typical day's output of Dade County's facility as seen on FPC's system. Mr. Kosky confirmed that this exhibit was indicative of the existing facility's electrical output [TR 95].

On August 24, one day prior to the hearing, FPC notified Dade County by letter that it had defaulted on its firm capacity contract. The default was brought on due to fluctuations in the electrical output of the existing facility [TR 132].

The Dade County facility's output fluctuations are primarily caused by problems with the fuel supply system. This system consists of a series of conveyor belts, which feed the refuse-derived fuel directly into the boiler. This system poses a problem, since currently there is no fuel storage container (such as a hopper) at the mouth of the boilers to assure a constant flow of fuel into the boiler. The conveyors are prone to numerous breakdowns, each of which starve the boilers of their fuel supply for a period of time and cause the electrical output to decrease. Furthermore, there is a tendency for the refuse-derived fuel to be unevenly distributed on the conveyors. This results in an inconsistent fuel supply to the boiler, thus causing small fluctuations in the facility's electrical output.

Mr. Dolan recommended in August 1992 that Dade County install fuel flow regulating bins on the existing boilers to ensure a more stable fuel supply [TR 130]. Acting on Mr. Dolan's recommendation, Dade County plans to fit each of its existing boilers with these fuel bins. Current plans call for all four fuel bins to be built and delivered to the facility by April 1, 1994 [Late-Filed EXH 10] and be fully operational as soon as July 1994. The conveyor system will deliver fuel directly into the top of the bins, which themselves will supply fuel into the boiler. The fuel bins will hold enough fuel to feed the boiler for about 10 minutes in the event of a disruption in the fuel supply [TR 130].

In addition, Dade County plans to upgrade part of its conveyor system by installing larger drive systems and replacing some old conveyors with new equipment with increased fuel-carrying capacity [TR 160]. Mr. Strong testified that the upgraded conveyor system should be less prone to operational problems [TR 160].

Planned improvements in the existing facility's fuel supply, combined with the new boiler and associated facilities, should improve the quality of the electrical output. Staff recommends that these improvements should correct the negative impact of Dade County's existing facility on reliability and integrity. However, because there are no plans to sell firm capacity, there is no way to determine whether the expanded facility will contribute to or degrade from the reliability and integrity of the state's electric system.

**ISSUE :** Will Dade County's expanded solid waste facility contribute

to the provision of adequate electricity to the state at a reasonable

cost?

**RECOMMENDATION:** Yes.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes. Electricity from the RRF expansion will be sold at Commission-approved as-available energy rates and will therefore be cost-effective. Moreover, the Facility's electricity generation from solid waste combustion will displace more expensive fuels, including oil and natural gas, consistent with Section 366.81, Florida Statutes.

**STAFF ANALYSIS:** Since there is no firm capacity contract, Dade County will likely sell its additional energy to FPL on an as-available basis [TR 44, 52, 65]. Such sales would be made to FPL pursuant to Commission-approved as-available energy tariff rates [TR 43]. Because these tariffs provide that power purchases will be made at a price no higher than the utility's avoided cost, Dade County's energy sales will, by definition, be cost-effective. Furthermore, these energy sales will displace the use of fossil fuels. For these reasons, staff recommends that Dade County's expanded solid waste facility will contribute to the provision of adequate electricity at reasonable cost.

**ISSUE :** Is Dade County's expanded solid waste facility the most

cost-effective alternative available to the state's electric

customers?

**RECOMMENDATION:** Yes.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes. Electricity from the RRF expansion will be sold at Commission-approved as-available energy rates and will therefore be cost-effective. Moreover, the Facility's electricity generation from solid waste combustion will displace more expensive fuels, including oil and natural gas, consistent with Section 366.81, Florida Statutes.

**STAFF ANALYSIS:** As noted in prior issues, there is a need for Dade County's proposed facility expansion only to displace fossil fuels and to burn solid waste. However, staff believes that the proposed expanded facility will provide cost-effective, as-available electricity, as evidenced by Dade County's commitment to abide by the Commission-approved as-available energy tariff [TR 43, 85, 93]. In two prior cases, In re: Petition of Pasco County for determination of need for a solid waste-fired cogeneration power plant (Order No. 19952, Docket No. 890598-EQ) and In re: Petition for determination of need for a solid waste-fired cogeneration power plant by Lee County (Order Nos. 23963 and 24821, Docket No. 900454-EQ), the Commission granted the determinations of need because both counties committed to sell electricity from their facilities in accordance with applicable Commission rules and Florida Statutes. The Commission found that electricity produced by these solid waste facilities would be priced on a cost-effective basis and supplied at reasonable cost. As noted in Issue 5, Staff recommends that Dade County's electricity sales will be similarly cost-effective.

**ISSUE :** Has Dade County taken all conservation measures reasonably

available to it that might mitigate the need for the expanded solid

waste facility?

**RECOMMENDATION:** This issue is irrelevant in this case. Even though Dade County's facility will displace fossil fuels, thus conserving natural resources, the energy conservation issue does not apply per se in the case of a municipal solid waste facility such as Dade County.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes.

**STAFF ANALYSIS:** This issue does not apply in Dade County's case because there is no firm capacity contract and, therefore, no plant to be avoided. While Section 403.519, Florida Statutes, directs the Commission to consider all conservation measures which might mitigate the need for the proposed plant, the statute refers to conservation measures taken by an electric utility which would mitigate that utility's need for a power plant. Dade County's petition for a determination of need is not a need for a power plant; rather, it is a need to reduce increasing amounts of solid waste in the county. Consequently, the Commission should also consider Section 377.709, Florida Statutes, which provides that:

the combustion of refuse by solid waste facilities to supplement the electricity supply not only represents an effective conservation effort but also represents an environmentally preferred alternative to conventional solid waste disposal in this state.

Thus, staff recommends that Dade County's proposed facility expansion is, in and of itself, a cost-effective conservation measure because it displaces fossil fuels.

**ISSUE :** Has Dade County adequately explored the construction of

alternative technologies in lieu of the expanded solid waste facility?

**RECOMMENDATION:** Yes.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes.

**STAFF ANALYSIS:** Dade County evaluated both of the commercially available types of solid waste-fired generation technologies: refuse derived fuel (RDF) and mass burn. RDF is produced when oversized garbage and trash material is shredded and recombined with smaller-sized waste material prior to being burned in the boiler. The mass burn technology allows the facility to burn all sizes of garbage and trash material [TR 53-4].

Dade County's existing solid waste facility uses RDF technology, but its new boiler will employ the mass burn technology. All other solid waste facilities in Florida use the mass burn technology, so Dade County and Montenay, the plant operator, are familiar with both technologies. Given that Dade County considered both types of facilities and will, if authorized by the Commission, operate boilers using both technologies, staff recommends that Dade County has adequately explored the construction of alternative technologies.

**ISSUE :** Has Dade County adequately considered all reasonably

anticipated costs of environmental compliance associated with the

expanded solid waste facility?

**RECOMMENDATION:** Yes.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes. Both the new boiler and, as part of the overall RRF expansion project, the four existing boilers will be equipped with air pollution control systems that are expected to satisfy all of EPA's and DEP's requirements.

**STAFF ANALYSIS:** Mr. Kosky testified that one of the criteria for controlling emissions from the solid waste facility is to ensure that any toxins or volatile materials are combusted within the boiler itself. He stated that Dade County's new boiler will meet all of EPA's latest criteria for the combustion of and minimizing the emissions of dioxins [TR 101]. The new boiler will be fitted with a dry scrubber bag house, which absorbs toxic metals and pollutants such as sulfur dioxide, nitrous oxide, and hydrogen chloride. The existing four boilers will be retrofitted with identical dry scrubber pollution control systems [TR 101-2].

Dade County also considered the potential for more stringent air pollution control regulations which are currently being considered by the Florida Department of Environmental Protection [TR 101-2]. Mr. Kosky stated his belief that these anticipated emission regulations can be met by the pollution control equipment already being planned for the facility [TR 102].

The pollution control equipment additions being proposed by Dade County as part of its facility expansion can reasonably be expected to meet all current environmental regulations as well as more stringent DEP requirements. Furthermore, if environmental compliance costs increase in the future, Dade County's residents will bear the cost because there is no firm capacity from the expanded facility. Therefore, staff recommends that Dade County has adequately considered all reasonably anticipated costs of environmental compliance associated with its expanded solid waste facility.

**ISSUE :** Are there any adverse consequences to electric utility

customers in the state if the expanded solid waste facility is not

completed in the time frame proposed by Dade County?

**RECOMMENDATION:** No.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes. If the proposed expansion is not completed in the proposed time frame, there will be slight adverse consequences in that: (1) the incremental gain in system reliability from the expanded RRF capacity would not be realized and (2) some amount of more expensive, non-renewable fuel resources will be used to generate electricity.

**STAFF ANALYSIS:** The only electric utility system materially affected by Dade County's expanded solid waste facility will be Florida Power and Light Company. Because there is no firm capacity commitment, the only consequence to FPL is that its customers will not receive any as-available energy from Dade County if the facility expansion is not completed. Mr. Kosky testified that FPL's reserve margin and, consequently, system reliability will increase slightly with the net addition of approximately 20 MW from the new boiler [TR 83]. Staff disagrees with this position. There is no firm capacity contract associated with the proposed expansion, nor is there one planned. A utility's reserve margin is calculated using only firm capacity sources.

As noted in Issue 1, staff believes that there is a need for the incremental amount of as-available energy from Dade County's new boiler. Staff agrees with Dade County's belief that there is an incentive to sell as-available energy during peak periods because utilities pay the highest rates for energy during those time periods [TR 83]. However, Staff disagrees with Mr. Kosky's statement that additional electricity might be available to meet a severe winter or summer peak and, therefore, could make a difference in maintaining electric service to part of Dade County. There is no factual evidence in the record to support this statement. In any event, such a small amount of energy will not make a significant impact on a utility system the size of FPL's.

If the proposed facility is not completed, the only effect on electric customers in the state, particularly those in FPL's service territory, is that they will not receive any as-available energy from Dade County's expanded solid waste facility. Staff does not believe this to be an adverse consequence.

**ISSUE :** Are there any adverse consequences to Dade County and its

citizens if the expanded solid waste facility is not completed in

the time frame proposed by Dade County?

**RECOMMENDATION:** This issue is irrelevant and, therefore, has no bearing in this case.

**POSITION OF THE PARTIES**

**DADE COUNTY:** If the proposed RRF expansion is not completed in the approximate time frame proposed, the County will incur higher waste disposal costs, will use up available landfill capacity sooner than it would otherwise, and may have to resort to less reliable and less environmentally desirable solid waste disposal technologies.

**STAFF ANALYSIS:** If the proposed facility expansion is not completed on time, Dade County citizens will likely have to pay a higher bill for waste disposal in future years because the county will use up all available landfill space significantly sooner [TR 47]. However, there will be no adverse consequences to Dade County's electricity needs if the proposed expanded solid waste facility is not approved. Please see Staff Analysis of Issue 10.

**ISSUE :** Based on the resolution of the previous factual and legal

issues, should Dade County's petition for determination of need for

the expanded solid waste facility be granted?

**RECOMMENDATION:** Yes. Although the expanded facility will not contribute to the reliability and integrity of the state's electric system, its energy is cost-effective and will displace the use of fossil fuels.

**POSITION OF THE PARTIES**

**DADE COUNTY:** Yes. Dade County's expanded facility will serve the goals of section 377.709 by:

a. extending landfill life;

b. deferring the need for new landfill capacity;

c. providing cost-effective electric energy; and

d. displacing the need to generate electricity from fossil fuels, including residual fuel oil, natural gas, and coal.

**STAFF ANALYSIS:** As identified in Issue 1, there is a need for the incremental amount of energy provided by the expanded facility. Dade County plans to sell this energy to FPL at its published as-available energy price. Therefore, FPL's ratepayers will pay no more for energy from the expanded facility than they would have paid to FPL to produce an equivalent amount of energy.

Issue 4 contains a lengthy discussion of the past and current operating performance of the facility. Dade County has stated its plans to correct the electrical output fluctuations. Dade County plans to renovate the fuel transport conveyor system and install fuel feed bins on the four existing boilers. Staff believes that Dade County's planned improvements should correct the existing facility's output fluctuations, which should mitigate its negative contribution to the reliability and integrity of the state's electric system. However, without a contract to sell firm capacity, there is no way to measure the expanded facility's positive contribution to reliability and integrity.

The need for Dade County's plant is driven by the need for solid waste management. Dade County has studied many options for dealing with its future solid waste management requirements. Dade County originally petitioned to add two boilers at the existing resources recovery facility. However, part of Dade County's waste will be diverted to the Okeelanta cogeneration facility, thereby eliminating the current need for one boiler. Additionally, Dade County's facility will serve a dual purpose by generating electricity and reducing the amount of solid waste disposed of in landfills.

For the reasons previously stated, Staff recommends that the Commission approve Dade County's petition for determination of need for its proposed expanded solid waste facility.

**ISSUE :** Should this docket be closed?

**RECOMMENDATION:** Yes. This docket should be closed if no petition for reconsideration is timely filed.

**METROPOLITAN DADE COUNTY'S PROPOSED FINDINGS OF FACT**

1. The new boiler will be separate from the existing four boilers and will be capable of producing approximately 300,000 pounds of steam per hour at 750 F. and 625 pounds per square inch of pressure. The steam from the new boiler will power a new steam electric generating turbine with an electrical generating capacity of approximately 33 MW. [TR 148, ll. 20-25]

**RECOMMENDATION:** Accept and incorporate.

1. Any real physical effects of the Facility's output fluctuations would only affect Florida Power and Light's system. [TR 124, ll. 12-22]

**RECOMMENDATION:** Reject as vague and irrelevant. The statement does not identify the "physical effects" that would only affect FPL's system. The statement is also irrelevant to the ultimate decision in the case. The impact of the facility's output fluctuations on FPL was never at issue in the case. In addition, it was established that the output fluctuations do have an effect on Florida Power Corporation and its ability to meet its Area Control Error criteria.

1. Florida Power and Light Company's interruption and curtailment reports, filed with the Commission pursuant to Commission Rule 25-6.018, Florida Administrative Code, indicate that FPL has reported no service interruption or outage events due to the Facility's output fluctuations since at least before 1989. [TR 126, ll. 6-22]

**RECOMMENDATION:** Reject as irrelevant, see finding of fact two.

1. FPL has not complained to Dade County about the Facility's output fluctuations, or about any adverse consequences caused by these fluctuations, since at least as long ago as 1990, when Dr. Tanhum Goldshmid assumed his present position with Dade County. [TR 124, ll. 12-22]

**RECOMMENDATION:** Reject as irrelevant, see finding of fact two.

1. There is not evidence of record to suggest that FPL ever complained about the Facility's output fluctuations. [TR 1-165, all lines; all exhibits]

**RECOMMENDATION:**  Reject as irrelevant, see finding of fact two.

1. Even if the Dade County Resources Recovery Facility were to trip off line completely, there probably would not be a measurable effect on either the state's electricity frequency or on FPC's system frequency. [TR 124, l. 23 to TR 125, l. 2]

**RECOMMENDATION:** Reject as speculative. While Mr. Dolan confirmed this statement on cross-examination, it is not phrased in the form of an affirmative, definite fact.

1. Dade County and Montenay Power Corp. have identified a vendor for the planned fuel storage bins. [TR 130, ll. 1-13; EXH 10]

**RECOMMENDATION:** Accept and incorporate.

1. Montenay Power Corp. has executed a letter of intent and a purchase order for the fuel bins, subject to the condition that the vendor, Wolf and Associates, is authorized to fabricate and deliver only one bin, the so-called "test bin," at this time. [LFE 10]

**RECOMMENDATION:** Accept and incorporate.

1. The Facility's output fluctuations have not caused any under frequency outage events on Florida Power Corporation's system since the inception of the contract. [TR 125, ll. 4-10]

**RECOMMENDATION:** Accept and incorporate.

1. The power sales agreement between Florida Power Corporation and Dade County [Exhibit KFK-4 within Hearing EXH 4] does not contain the so-called ACE, or Area Control Error, criteria identified and discussed in Mr. Dolan's testimony. [TR 128, l. 22 to TR 129, l. 10]

**RECOMMENDATION:** Reject as irrelevant. The Area Control Error (ACE) is a criteria which all utilities are expected to adhere to. Whether the criteria is not explicitly codified in the contract between FPC and Dade County is irrelevant to the fact that the criteria exists.

1. A fast track for the installation of the planned fuel bins would be six months to one year. [TR 133, ll. 11-14]

**RECOMMENDATION:** Reject as speculative and out of context. The statement was taken from redirect questioning of Mr. Dolan by Mr. Elias. A hypothetical series of questions were put to Mr. Dolan assuming Florida Power Corporation operated the Dade County Facility. In the transcript citation provided for this statement, no direct reference is made to the "planned" fuel bins Dade County is planning to construct.

1. According to the purchase order issued by Montenay Power Corp. to Wolf and Associates, which provides for on-site delivery of all twenty fuel bins by April 1, 1994, it is possible that the fuel bins will be installed on all four existing boilers as early as July 1994. [LFE 10; TR 158, ll. 13-21; TR 159, ll. 2-5]

**RECOMMENDATION:** Accept and incorporate.

1. The fuel bins project is funded, meaning that no further financial approvals are required to proceed with the fuel bins project. [TR 159, ll. 12-18]

**RECOMMENDATION:** Accept and incorporate.

1. The expanded Facility's new power block will include a "dump condenser" that will be designed to automatically regulate the Facility's exported power to 80 MW, so long as sufficient steam is available to generate at least 80 MW of electricity in addition to the plant load. [TR 151, ll. 9-13]

**RECOMMENDATION:** Accept and incorporate.

1. In the event of a boiler outage or a serious fuel supply interruption, the dump condensers will be designed to automatically direct steam back to the generating turbines to produce additional electricity up to the maximum export amount of 80 MW. [TR 151, ll. 13-18]

**RECOMMENDATION:** Accept and incorporate.

1. The expanded Facility's new power block will use mass-burn firing technology similar to the technology used at other solid waste facilities in Florida. [TR 149, ll. 1-4 & 22-23; TR 150, ll. 19-21; TR 119, l. 17 to TR 120, l.6]

**RECOMMENDATION:** Accept and incorporate.

1. The expanded Facility's new power block will employ a charging hopper fuel supply system typical of other waste-to-energy facilities in Florida. [TR 149, ll. 1-15]

**RECOMMENDATION:** Accept and incorporate.

1. The new power block can reasonably be expected to perform as reliably as other waste-to-energy facilities in Florida. [TR 120, l. 17 to TR 121, l. 5; TR 150, ll. 17-21]

**RECOMMENDATION:** Accept and incorporate.

1. Any power or energy sales made from the expanded Facility will be made pursuant to Commission-approved as-available energy tariffs, Commission-approved standard offer contract tariffs, or Commission-approved negotiated contracts. Accordingly, any power or energy sales from the expanded Facility will be made at rates no greater than a purchasing utility's avoided costs. [TR 85, ll. 1-10]

**RECOMMENDATION:** Accept and incorporate.

1. Dade County has adequately considered all reasonably anticipated costs of environmental compliance associated with its proposed solid waste facility. [TR 102, l. 12 to TR 103, l. 13]

**RECOMMENDATION:** Reject as this finding of fact is phrased as a conclusion of law, and is an issue to be explicitly decided by the Commission.