BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Approval of)	DOCKET NO.	910401-EQ
Contracts for Purchase of Firm Capacity			
and Energy by Florida Power Corporation)	ORDER NO.	24734
)		
	_)	ISSUED:	7-1-91

The following Commissioners participated in the disposition of this matter:

THOMAS M. BEARD, Chairman
J. TERRY DEASON
BETTY EASLEY
GERALD L. GUNTER
MICHAEL MCK. WILSON

NOTICE OF PROPOSED AGENCY ACTION

ORDER APPROVING FIRM CAPACITY AND ENERGY CONTRACTS

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are adversely affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

BACKGROUND

On January 11, 1991, Florida Power Corporation (FPC) solicited power through a Request for Proposal (RFP) from those prospective Qualifying Facilities (QFs) that had previously indicated their interest in selling firm capacity and energy to FPC from proposed projects with an in-service date no later than December 1, 1993.

In response to its request FPC received thirteen proposals from prospective QFs. FPC retained a consultant from National Economic Research Associates, Inc. to help evaluate the proposals. Two proposals were eliminated based upon the lack of development maturity. A third project was eliminated because of the pricing risk associated with the proposed fixed capacity and energy payments. The consultant ranked the remaining ten projects in order of preference. FPC selected the following eight projects from this group:

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PROJECT FUEL TYPE & LOCATION	COMMITTED CAPACITY	CAPACITY FACTOR	CONTRACT DATE OF THE OF
Dade County Municipal Solid Was Miami	43 MW te	83%	November, 1991
El Dorado Energy Natural Gas Auburndale	103.8 MW	92%	January, 1991
Lake Cogen Limited Natural Gas Umatilla	102 MW	90%	August, 1993
Mulberry Energy Company, Inc. Orimulsion Bartow	72 MW	90%	January, 1993
Orlando Cogen Limited L.P. Natural Gas Orlando	72 MW	90%	January, 1994
Pasco Cogen Limited Natural Gas Dade City	102 MW	90%	August, 1993
Ridge Generating Station Limited Partnership Agricultural & Wood Polk County	36 MW Waste	85%	January, 1994
Royster Phosphates Waste Heat from Processing Palmetto	28 MW	85%	December, 1993

FPC'S ADDITIONAL CAPACITY NEEDS

The eight negotiated contracts total 559 MW of capacity. If a utility were to construct this amount of capacity itself, it would have to come before the Commission with a petition for a need

determination. The capacity FPC has contracted to purchase here, however, is made up of small projects with a <u>steam capacity</u> of less than 75 MW each, and the projects are thus not large enough to fall within the jurisdiction of the Florida Power Plant Siting Act.

The QF projects are projected to avoid the FPC's 1991 need of 300 MW of coal and 150 MW of combustion turbine capacity as identified in Docket No. 910004-EU, the Annual Planning Hearing (APH). The 1991 need for 450 MW of capacity is different from the Standard Offer need identified in the same docket. FPC identified an 80 MW combustion turbine unit with an 1997 in-service date for its Standard Offer contract.

In the request for proposals, FPC gave the QFs a choice of coal unit or combustion turbine unit pricing. All eight QFs chose the coal unit price. FPC maintains that the prices associated with the eight contracts are below the price of the 450 MW of coal-fired generation. FPC also maintains that the contract prices are below the price associated with the 300 MW coal and 150 MW combustion turbine. On a present worth basis, using FPC's planning assumptions, the 450 MW of coal capacity has total fuel and capacity costs very close to the 300 MW coal and 150 MW combustion turbine option. FPC's projections indicate that beginning in 2008, a coal unit's total avoided costs (capacity and fuel) fall below a combustion turbine's total avoided cost on a net present value basis. Since the terms of all eight contracts extend beyond the year 2008, FPC states that it considers the contracts to avoid part of the 450 MW of coal-fired generation.

In addition to the eight contracts, FPC signed two other contracts against their 1991 need, one with Seminole Fertilizer (47 MW) and one with Ecopeat (36.5 MW). The Seminole Fertilizer contract was approved in Order No. 24099. The Ecopeat contract is presently awaiting Commission approval.

The 559 MW of the negotiated contracts and the 83.5 MW associated with the Seminole and Ecopeat contracts exceed FPC's 450 MW need identified in their 1990 Facility Plan. FPC states that the excess capacity will cover present qualifying facility projects that may not come to fruition. For example, FPC believes that its two contracts with the Corporation for Future Resources, which total 74 MW, are doubtful and may not perform. Also, Pinellas County and General Peat have requested in-service delays of one to two years for projects totalling 196 MW. FPC states that it

negotiated contracts for the excess capacity because it is in need of capacity immediately, and would not have time to acquire more QF capacity to replace any contracts that might not perform. FPC's winter reserve margin for the 1991-1995 period ranges from 7.1% to 10.8% without the eight QF contracts and 7.7% to 17.6% with the QF contracts.

FPC's need for additional capacity identified in its 1989 Annual Planning Hearing has increased considerably in its current 1991 expansion plan. The 1989 plan identified a need for 260 MW of combustion turbine capacity with a 1995 in-service date. The current 1991 plan identifies a need of 450 MW with a 1991 inservice date.

FPC maintains that the additional need is a result of three factors:

1) Higher Demand

FPC's demand and energy is higher than projected because FPC's forecast underestimated customer growth, underestimated per capita energy usage, and overestimated per customer demand reductions from conservation and load management programs.

2) Remodeled Interface

FPC changed its method of modelling emergency assistance. The old method of modelling emergency assistance overstated the reliability of FPC's system, and thus reduced the apparent need for capacity. By more accurately modelling emergency assistance, FPC's plan showed an accelerated need for capacity in 1991.

FPC's old method of modelling emergency assistance did not consider the tie-line limitation of 3200 MW into Florida. The Company previously modeled the Peninsula and Southern as one assistance area with no transmission constraints between Southern and the Peninsula. The effect was to assume that FPC could receive assistance from Southern as long as it had capacity available, whether or not the capacity could be transmitted to FPC.

> Now, FPC's model accounts for the limitation on the tielines by modelling the Peninsula as the assistance area and by modelling Southern as a 2,800 MW unit in the peninsula (3,200 MW interface capacity minus FPC's firm purchase of 400 MW). This new modelling technique recognizes the limitations in transmitting capacity between the Southern Company and Florida, and results in a more accurate representation of FPC's reliability.

3) Lower Assistance From Peninsular Florida Utilities

Because the peninsular Florida utilities have experienced higher than anticipated loads, they have less capacity available to sell FPC on an emergency basis.

As a result of these changes, the FPC Loss of Load Probability (LOLP) has increased, thereby accelerating FPC's need into 1991.

CONTRACT TERMS AND CONDITIONS

The negotiated contracts considered here contain several terms and conditions that are relatively unique. The unique terms and conditions are described below.

Security Guaranties

Within sixty days after the contract approval date, the QF shall post a Completion Security Guarantee of \$10 per KW of Committed Capacity or \$1,000,000 per 100 MW to ensure completion of the QF facility in a timely fashion. The contract agreement will terminate if the completion security guarantee is not tendered in a timely fashion. FPC will refund to the QF any cash completion security guarantee if the facility achieves commercial in-service at or prior to the contract in-service date.

The negotiated contracts contain an Operational Security Guarantee of \$20 per KW of committed capacity or \$2,000,000 per 100 MW to ensure timely performance by the QF of its obligations under the agreement. The operational security guarantee must be cash or suitable letter of credit, and terminates with the term of the agreement.

Changes in Committed Capacity

For the period ending one year immediately after the contract in-service date, the QF may, on one occasion only, increase or decrease the committed capacity by no more than 10%. After the one year period, and throughout the term of the agreement, the QF may decrease its committed capacity by up to 20%. The QF will be charged a penalty if it provides less than three years notice for a decrease in capacity occurring one year after the in-service date. The capacity payment will be prorated to the new capacity amount.

Capacity and Energy Payments

The negotiated contracts allow the QFs to receive a monthly capacity payment based on the value of the committed capacity factor during the month. The respective payment streams for the QFs are based on their committed on-peak capacity factors (83%-See appendix 2. FPC's avoided coal unit used for pricing these contracts contains a 83% on-peak capacity factor. payment stream of the contracts with capacity factors above 83% are increased by their committed capacity divided by 83% (ex. 90/83 = 1.084%) to reflect the additional value of higher availability and reliability to FPC. The contracts also include a capacity performance adjustment which will decrease the capacity payment in the event the monthly on-peak capacity factor is below the respective contractual minimum amount but greater than or equal to 50%. No capacity payment will be made if the on-peak capacity factor falls below 50%.

Beginning with the contract in-service date, the QF will receive electric energy payments based upon the firm energy cost calculated on an hour-by-hour basis as follows: (i) the product of the average monthly inventory chargeout price of fuel burned at the Avoided Unit Fuel Reference Plant, the Fuel Multiplier, and the Avoided Unit Heat Rate, plus the Avoided Unit Variable O & M, if applicable, for each hour that the Company would have had a unit with these characteristics operating; and (ii) during all other hours, the energy cost shall be equal to the as-available energy cost. There is also an hourly performance adjustment to the energy payment which provides an incentive to the QF to operate in a manner similar to the operation of the avoided unit.

Events of Default

The negotiated contracts permit the QF to delay commercial operation by up to 90 days beyond the Contract In-Service Date with the payment of \$0.15 per kW or \$15,000 per 100 MW per day of delay. If the Operational Security Guarantee is not tendered on or before the applicable due date the QF is in default.

If there are delays in commercial in-service, the Negotiated Contract requires renegotiations to begin at least thirty days prior to termination if the QF has commenced construction and is not in arrears for monies owed to FPC.

Interconnection Formats

Three interconnection formats were used as the basis for all eight negotiated contracts. All eight QFs are located south of FPC's Central Florida Substation, therefore FPC did not have to acquire additional interface capacity. The contract format used for each contract is summarized below:

- Interconnected and Non-Interconnected:
 - El Dorado Energy
 - Ridge Generating Station Limited Partnership

These two contracts use the base contract format which permits the QF to either be directly interconnected to the company or to be interconnected to a transmission service utility which provides wheeling services. The two QFs who have selected this format have facilities which will be located close to FPC's system but they may elect to wheel.

2. Interconnected

- Lake Cogen Limited
- Mulberry Energy Company, Inc.
- Orlando Cogen Limited
- Pasco Cogen Limited

This contract version is for the QFs directly interconnected to FPC.

- 3. Non-Interconnected Version
 - Dade County
 - Royster Phosphates, Inc.

This contract version is for the QFs that will wheel their power through a transmission service utility.

APPROVAL OF THE CONTRACTS

Under the provisions of Sections 25-17.082 NS 25-17.0832(2), Florida Administrative Code, we grant Florida Power Corporation's petition for approval of the eight negotiated QF contracts discussed above. Section 25-17.082, Florida Administrative Code requires electric utilities to purchase electricity produced and sold by qualifying facilities at rates which have been agreed upon by the utility and qualifying facility, or at the utility's published tariff rate. Section 25-17.0832(2), Florida Administrative Code states that in reviewing a negotiated firm capacity and energy contract for purposes of cost recovery, the Commission shall consider the following factors:

- a. Whether the additional firm capacity and energy is needed by the purchasing utility and by Florida utilities from a statewide perspective;
- b. Whether the present worth of the utility's payments for firm capacity and energy to the QF over the life of the contract is projected to be no greater than the present worth of the year-by-year deferral of the construction and operation of a generating facility by the purchasing utility over the life of the contract, or the present worth of other capacity and energy costs that the contract is designed to avoid;
- c. Whether, to the extent that annual firm capacity and energy payments made to the QF in any year exceed that year's annual value of deferring the construction and operation of a generating facility, or other capacity and energy related costs, the contract contains provisions to ensure repayment of the amounts that exceed that year's value of deferring the capacity if the QF fails to deliver firm capacity and energy under the terms of the contract; and

> d. Whether, considering the technical reliability, viability and financial stability of the QF, the contract contains provisions to protect the purchasing utility's ratepayers if the QF fails to deliver firm capacity and energy under the terms of the contract.

Need For Power

It is with certain reservations that we approve contracts amounting to 642.5 MW (including Seminole and Ecopeat), when FPC has only identified a need for 450 MW. We do not believe, as a general rule, that utilities should sign up more capacity than they need. There are, however, certain circumstances which support such an action in this case. FPC's need is immediate and they cannot risk obtaining less than 450 MW because of possible QF defaults or delays. Also, FPC's need is probably greater than the 450 MW they identified in their 1990 plan because that plan did not anticipate recently requested delays in existing QF projects, or the anticipated one-year delay in FPC's 500 kV transmission line.

In the event that all QF projects do come on-line as agreed, and FPC has excess capacity, FPC can reduce its purchase from Southern Company by 200 MW in 1994 and delay or cancel the construction of 1993 combustion turbines to mitigate any harmful effect to its ratepayers.

Furthermore, FPC needs to purchase capacity and energy from the QF's to meet reliability and reserve margin requirements. The purchases will contribute to maintaining a loss of load probability of less than 0.1 days per year. The capacity provided by the QF's will improve the loss of load probability for the state, and thus contribute to the capacity needs of the state.

Cost-Effectiveness

The analysis provided by FPC with its petition indicated that the present value of its payments to each of the QFs for firm capacity and energy will be no greater than the present worth of the value of a year-by-year deferral of FPC's avoided costs. The analysis showed a present worth savings of \$42,516,772 compared to FPC's full avoided costs for the eight negotiated contracts. FPC's avoided costs are derived from its 1991 need for 450 MW of pulverized coal and combustion turbine capacity.

At the time the petition for approval was filed, FPC was in the process of updating the K factor associated with its avoided cost. Since that time FPC has completed its update of the K factor and recalculated its avoided costs accordingly. According to the revised figures submitted by FPC (Appendix 1), the present worth savings of the eight contracts have increased to \$44,273,607. Our approval of the contracts is still appropriate, since the present worth savings, compared to FPC's full avoided costs, has increased.

Security for Early Payments

None of the eight QF's will be paid early capacity payments, and therefore, there is no need to establish a capacity credit account to ensure repayment of capacity payments exceeding that year's value of deferral.

Security Against Default

The contract contains security to protect FPC's ratepayers in the event a QF fails to deliver firm capacity and energy as required in the contract. The contract contains several performance milestone dates which, if not achieved, would permit FPC to terminate the contract.

CONCLUSION

We find that the negotiated cogeneration contracts between FPC and Dade County, El Dorado Energy, Lake Cogen Ltd., Mulberry Energy Co., Orlando Cogen Ltd., Pasco Cogen Ltd., Ridge Generation Stn. Ltd., and Royster Phosphates are viable generation alternatives because:

- The capacity and energy generated by the facilities is needed by FPC and Florida's utilities;
- The contracts appear to be cost-effective to FPC's ratepayers;

- FPC's ratepayers are reasonably protected from default by the QFs; and
- 4. The contracts meet all the requirements and rules governing qualifying facilities.

It is therefore

ORDERED by the Florida Public Service Commission that the contracts are approved for the reasons set forth in the body of this order. It is further

ORDERED that this Order shall become final unless an appropriate petition for formal proceeding is timely filed herein. It is further

ORDERED that this Order shall become final and this docket shall be closed unless an appropriate petition for a formal proceeding is received by the Division of Records and Reporting, 101 East Gaines Street, Tallahassee, Florida 32399-0870, by the close of business on the date indicated in the Notice of Further Proceedings or Judicial Review.

By ORDER of the Florida Public Service Commission, this lst day of July 1991.

STEVE TRIBBLE, Director

Division of Records and Reporting

(SEAL)

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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.

The action proposed herein is preliminary in nature and will not become effective or final, except as provided by Rule 25-22.029, Florida Administrative Code. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, as provided by Rule 25-22.029(4), Florida Administrative Code, in the form provided by Rule 25-22.036(7)(a) and (f), Florida Administrative Code. petition must be received by the Director, Division of Records and Reporting at his office at 101 East Gaines Street, Tallahassee, Florida 32399-0870, by the close of business 7-22-91

In the absence of such a petition, this order shall become effective on the day subsequent to the above date as provided by Rule 25-22.029(6), Florida Administrative Code.

Any objection or protest filed in this docket before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

If this order becomes final and effective on the date described above, any party adversely affected may request judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or by 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 of the effective date of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

SUMMARY OF CONTRACTS

SHOWING COST EFFECTIVENESS

	NPV of Discount	Contract/ Avoided
Company Name	(1/1/91)	(Percent)
Dade County	\$128,055	99.93%
El Dorado Energy Company	\$21,381,710	94.83%
Lake Cogen Limited	\$3,292,284	99.15%
Mulberry Energy Company, Inc	\$9,801,864	97.20%
Orlando CoGen Limited, L.P.	\$1,012,795	99.72%
Pasco Cogen Limited	\$3,292,284	99.15%
Ridge Generating Station Limited Partnership	\$3,581,696	97.83%
Royster Phosphates, Inc.	\$1,787,919	97.89%
Total	\$44,278,607	

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Dade County Contract Capacity 43 MW

		Contract	Avoided	Contract	Total	Avoided	Avoided	Avoided	Avoided	Total
	Capacity	Capacity	Fuel	Eveldh .	Contract	Capacity	Capacity	Energy *	Energy	Avoided
	Credits	Credite	M&O 1sV &	Payment	Payment	Cost	Cost	Cost	Cost	Cost
Year	\$/KW/Mo.	\$IYear	\$/MWH	\$/Year	\$/Year	\$/KW/Mo.	\$/Year	\$/MWH	\$/Year	\$/Year
1991	10.92	939,120	25.77	1,389,892	2,329,012	10.94	940,840	25 77	1,389,892	2,330,732
1992	11.48	5,923,680	25 88	8,696,926	14,629,606	11.49	5,928,840	26.88	8,696,926	14,625,766
1993	12.07	6,228,120	28.05	9,076,188	15,304,308	12.08	6,233,280 ,	28.05	9,076,188	15,309,468
1994	12.58	8,542,880	29 32	9,487,949	18,030,829	12.70	6,553,200	29.32	9,487,949	16,041,149
1995	13,32	6,873,120	30.52	9,972,344	16,845,464	13.34	6,883,440	30.82	9,972,344	16,855,784
1995	14.00	7,224,000	32.39	10,480,332	17,704,332	14.02	7,234,320	32.39	10,480,332	17,714,652
1997	14.72	7,595,520	34.04	11,015,785	18,611,305	14.74	7,605,840	34.04	11,015,785	18,621,625
1998	15.48	7,977,360	35.78	11,576,741	19,554,101	15.50	7,998,000	35.78	11,576,741	19,574,741
1999	16.25	8,385,000	37.60	12,167,388	20,552,388	16.29	8,405,640	37 60	12,167,388	20,573,028
2000	17.08	8,813,280	39.52	12,789,000	21,602,280	17.12	8,833,920	39.52	12,799,000	21,622,920
2001	17.95	9,262,200	41.54	13,442,849	22,705,049	17.99	9,282,840	41 54	13,442,849	22,725,689
2002	18.87	9,736,920	43.66	14,127,288	23,864,208	18.91	9,757,560	43.66	14,127,288	23,884,848
2003	19.83	10,232,280	45.88	14,846,510	25,078,790	19.87	10,252,920	45.88	14,846,510	25,098,430
2004	20.85	10,758,600	48.23	15,805,020	26,363,620	20 88	10,774,080	48.23	15,605,020	26,379,100
2005	21.91	11,305,560	50.69	16,401,811	27,707,371	21 95	11,326,200	50 89	16,401,811	27,728,011
2006	23.02	11,878,320	53.27	17,238,155	29,116,475	23.07	11,904,120	53.27	17,238,155	29,142,275
2007	24.20	12,487,200	55.94	18,115,324	30,602,524	24.24	12,507,840	55.98	18,115,324	30,523,164
2008	25.43	13,121,680	58.84	19,039,098	32,160,979	25.48	13,147,680	58.84	19,039,099	32,186,779
2009	26.74	13,797,840	61.84	20,010,751	33,408,591	26,78	13,818,480	61.84	20,010,751	33,829,231
2010	28.09	14,494,440	65,00	21,032,190	35,526,630	28.15	14,525,400	65.00	21,032,190	35,557,590
2011	29,53	15,237,480	68.31	22,102,724	37,340,204	29.58	15,263,280	68.31	22,102,724	37,365,004
2012	31.04	16,016,640	71.79	23,230,733	39,247,373	31.09	18,042,440	71.79	23,230,733	39,273,173
2013	32.61	15,424,530	75.45	22,381,202	37,805,732	32.68	15,457,640	75.45	22,381,202	37,838,842
Net Present Value (11/1/9)	}	\$79,714,094		\$115,807,122	\$195,521,216		\$79,852,693		\$115,807,122	\$195,659,814

Contract vs. Avoided Costs 99.9344 NPV of the Discount (1/1/91) \$128,055

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^{* ,83} Capacity Factor and 3.5% Voltage Adjustment

El Dorado Energy Company Contract Capacity 103.88 MW

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		87.5% of	Contract	Avoided	Contract	Total	Avoided	Avoided	DebiovA	Avoided	Avoided	Total
	Capacity	Capacity	Capacity	Fuel	Energy *	Contract	Capacity	Capacity	Capacity	Energy *	Energy	Avoided
	Credits	Credits	Credits	& Var O&M	Payment	Payment	Cost	Cost	Cost	Cost	Cost	Cost
Year	\$/KW/Mo.	SJKW/Mo.	\$/Year	\$/MWH	\$/Year	\$/Year	\$/KW/Mo.	\$/KW/Mo.	\$/Year	\$/MWH	\$/Year	\$/Year
1994	12.58	12.30	15,330,285	29 32	25,406,541	40,736,826	12.70	14.08	17,547,960	29.32	25,406,541	42,954,502
1995	13.32	12.92	16,104,053	30 A2	26,703,639	42,807,692	13,34	14.79	18,432,267	30.82	26,703,639	45,135,906
1996	14.00	13.58	16,926,182	32 39	28,063,914	44,990,097	14.02	15,54	19,371,843	32.39	24,063,914	47,435,757
1997	14.72	14.28	17,796,672	34.04	29,497,736	47,294,407	14.74	16,34	20,366,588	34.04	29,497,736	49,854,424
1996	15.48	14.99	18,891,341	35.78	30,999,845	49,591,186	15.50	17.18	21,416,802	35.78	30,999,845	52,416,847
1996	16.25	15.76	19,645,461	37.60	32,581,463	52,227,925	16.29	18.05	22,508,368	37.60	32,581,463	55,089,831
2000	17.08	16.57	20,649,942	39.52	34,245,997	54,895,939	17.12	18.98	23,655,203	39.52	34,245,967	57,901,200
2001	17.95	17.41	21,701,784	41.54	35,996,852	57,698,636	17.99	19.94	24,857,308	41.54	35,996,452	60,854,160
2002	18.87	18.30	22,814,076	43.66	37,829,624	60,643,700	18.91	20.96	26,128,498	43.66	37,829,624	63,958,123
2003	19.83	19.23	23,974,728	45.68	39,755,533	63,730,261	19.87	22.02	27,454,958	45.88	39,765,533	67,210,491
2004	20.85	20.22	25,207,921	48.23	41,788,650	66,994,572	20,88	23,14	28,850,505	49.23	41,786,650	70,637,155
2065	21.91	21.25	26,489,475	50.69	43,920,273	70,409,749	21.95	24.33	30,328,955	50.69	43,920,273	74,249,228
2006	23.02	22.33	27,831,480	53.27	48,159,810	73,991,289	23.07	25.57	31,876,492	53.27	46,159,810	78,036,301
2007	24.20	23.47	29,258,115	55.98	48,508,666	77,766,781	24.24	26.87	33,493,115	55.98	48,508,666	82,001,780
2008	25.43	24.66	30,745,201	58.84	50,982,321	\$1,727,522	25.48	28.24	35,206,459	58.84	50,982,321	88,188,780
2009	26.74	25.93	32,329,008	61.84	53,584,182	45,913,190	26.78	29.68	37,002,707	61.84	53,584,182	90,580,889
2010	28.09	27.24	33,961,176	65.00	56,319,360	90,280,535	28.15	31.20	38,895,676	65.00	56,319,360	95,215,036
2011	29.53	28.64	35,702,154	68.31	59,186,003	94,888,158	29.58	32.79	40,871,548	88.31	59,186,003	100,057,552
2012	31.04	30,11	37,527,764	71 79	62,206,553	99,734,317	31,09	34.48	42,957,959	71.79	62,206,553	105,164,513
2013	32.62	31.54	39,438,004	75.45	65,380,040	104,818,044	32.68	36.22	45,154,909	75.45	85,380,040	110,534,948
Net Pre	esent Value (1/1/94))	\$196,062,828		\$325,081,123	\$521,143,952			\$224,490,850		\$325,081,123	\$549,571,973

Contract vs. Avoided Costs 94.83% NPV of the Discount (1/1/01) \$21,381,710

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^{* .92} Capacity Factor and 3,5% Voltage Adjustment

Lake Cogen Limited
Contract Capacity 102 MW

								90/83 of				
		90/83 of	Contract	Avoided	Contract	Total	Avoided	Avoided	Avoided	Avoided	Avoided	Total
	Capacity	Capacity	Capacity	Fuel	Evelok .	Contract	Capacity	Capacity	Capacity	Energy *	Energy	Avoided
	Credits	Credits	Credits	M&O raV &	Payment	Payment	Cost	Cost	Cost	Cost	Cost	Cost
Year	\$/KW/Mo	s/KW/Mo.	\$/Year	\$/MWH	\$/Year	\$/Year	\$/KW/Mo	\$/KW/Mo	\$/Yeas	\$/MWH	\$/Year	\$/Year
1993	12.07	13.09	6,674,855	28 05	9,727,211	16,402,067	12 08	13.10	6,680,386	28.05	9,727,211	16,407,597
1994	12.68	13.75	16,829,263	29 32	24,404,418	41,233,681	12.70	13.77	16,855,807	29.32	24,404,418	41,260,226
1995	13.32	14 44	17,678,689	30 92	25,650,354	43,329,043	13.34	14.47 1	17,705,234	30.82	25,650,354	43,355,588
1996	14.00	15 18	18,581,205	32 39	26,956,975	45,538,180	14.02	15.20	18,607,749	32.39	26,956,975	45,564,725
1997	14.72	15. 96	19,536,810	34 04	28,334,242	47,871,051	14.74	15.98	19,583,354	34.04	28,334,242	47,897,596
1998	15.32	16.61	20,333,147	35 78	29,777,103	50,110,250	15.50	16.61	20,572,048	35.78	29,777,103	50,349,151
1999	15.93	17.27	21,136,120	37 60	31,295,336	52,432,457	16.29	17.66	21,620,559	37.60	31,296,336	52,916,895
2000	16.74	18.15	22,215,688	39 52	32,895,214	55,110,903	17.12	18.56	22,722,159	39.52	32,895,214	55,817,373
2001	17.60	19.08	23,359,229	41 54	34,577,010	57,936,239	17.99	19.51	23,875,848	41.54	34,577,010	58,453,858
2002	18.49	20.05	24,543,913	43 66	36,337,491	60,\$81,405	18.91	20.50	25,097,899	43.66	36,337,491	61,435,390
2003	19.33	20.96	25,660,976	45.88	38,187,436	63,848,411	19.87	21.55	26,372,039	45.88	38,187,435	64,559,474
2004	20.22	21.93	26,842,541	48 23	40,138,438	66,980,980	20.88	22.64	27,712,540	48.23	40,138,438	67,850,978
2005	21.25	23.05	25,207,198	50.69	42,187,904	70,395,102	21.95	23.80	29,132,675	50.69	42,187,904	71,320,579
2006	22.34	24.22	29,650,294	53.27	44,339,105	73,969,399	23.07	25.02	30,619,171	53.27	44,339,105	74,958,276
2007	23.47	25.45	31,155,372	55.98	46,595,314	77,750,685	24.24	28.28	32,172,029	55.98	46,595,314	78,767,343
2008	24.54	26.61	32,670,131	58 14	48,971,399	81,541,531	25.48	27.63	33,817,793	58.84	48,971,399	82,789,192
2009	25.66	27.82	34,056,694	61 84	51,470,634	\$5,527,328	26.78	29.04	35,543,190	61 64	51,470,634	87,013,824
2010	20.97	29.24	35,790,586	65 00	54,097,927	89,888,513	28.15	30.52	37,361,494	65.00	54,097,927	91,459,421
2011	28.35	30.74	37,625,347	68.31	56,851,500	94,476,847	29.58	32.07	39,259,431	68.31	56,851,500	96,110,931
2012	29.79	32.30	39,538,149	71 79	59,752,909	99,291,058	31.09	33.71	41,263,547	71.79	59,752,909	101,016,456
2013	31.32	33,96	24,248,472	75.45	35,634,045	60,882,518	32.68	35.44	25,301,407	75.45	36,634,048	61,935,453
Net Pre	reent Value (8/1/93	1	\$205,775,089		\$305,819,987	\$512,596,067			\$211,153,331		\$305,819,987	\$516,973,318

Contract vs. Avoided Costs 99.15%

NPV of the Discount (1/1/2-1) \$3,292,284

42793

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ORDER NO. 24734 CKET NO. 910401-EQ FAGE 16

^{* .90} Capacity Factor and 3.5% Voltage Adjustment

Mulberry Energy Company Contract Capacity 72 MW

	y lu4 Page							90/83 of				
ORDER	, <u>a</u>	90/83 of	Contract	80% of	Contract	Total	Avoided	Avoided	Avoided	Avolded	Avoided	Total
88	Capacity	Capacity	Capacity	Avoided	Energy *	Contract	Capacity	Capacity	Capacity	Energy *	Energy	Avoided
δă	Credits	Credits	Credita	Fuel	Payment	Payment	Cost	Cost	Cost	Cost	Cost	Cost
Year	\$/KW/Mo.	\$/KW/Mo.	\$/Year	\$/MWH	\$/Year	\$/Year	\$/KW/Mo.	\$/KW/Mo.	\$/Year	\$/MWH	\$PAR	\$/Year
1994	18.93	20.53	17,734,901	19.10	11,219,750	28,954,651	12.70	13.77	11,898,217	29.32	17,226,644	29,124,865
1995	19.90	21.58	18,643,663	20.07	11,791,734	30,435,397	13.34	34.47 1	12,497,812	30,82	18,106,132	30,603,944
1996	20.91	22.67	19,589,899	21 09	12,393,287	31,983,186	14.02	15.20	13,134,882	32.39	19,028,453	32,163,335
1997	21.98	23.83	20,592,347	22 17	13,025,334	33,617,681	14,74	15.98	13,409,427	34.04	20,000,641	33,810,068
1998	23,10	25.05	21,641,639	23.30	13,689,722	35,331,360	15.50	18.81	14,521,446	35.78	21,019,131	35,540,577
1999	24.05	26.08	22,528,948	24 49	14,387,837	36,916,783	16.29	17.66	15,261,571	37.50	22,091,531	37,353,102
2000	25.03	27.14	23,452,633	25.74	15,121,529	38,574,161	17.12	18,56	16,039,171	39.52	23,220,161	39,259,322
2001	26.06	28.26	24,414,190	27.05	15,892,644	40,306,835	17.99	19.51	16,854,246	41.54	24,407,301	41,261,547
2002	27.13	29.42	25,415,172	28.43	16,703,493	42,118,666	18,91	20.50	17,716,164	43.66	25,649,994	43,366,154
2003	28.24	30.62	26,457,194	29 88	17,555,463	44,012,657	19.87	21.55	18,615,557	45.88	26,955,837	45,571,394
2004	29,40	31.88	27,541,939	31 40	18,450,400	45,992,339	20.88	22.64	19,561,793	48,23	28,333,015	47,894,808
2005	30.75	33.34	25,805,868	33 01	19,391,539	48,200,408	21.95	23.80	20,584,241	50 69	29,779,697	50,343,938
2006	32.32	35.04	30,278,121	34 69	20,380,729	50,658,850	23.07	25.02	21,613,533	53.27	31,298,192	82,911,724
2007	33.97	36.83	31,822,305	36.46	21,419,817	53,242,122	24.24	26.28	22,709,667	55.98	32,890,810	55,600,477
2004	35.70	38.71	33,445,242	38.32	22,512,500	55,957,743	25.48	27.63	23,871,383	58.84	34,568,047	58,439,430
2009	37.52	40.68	35,150,950	40.27	23,660,626	58,811,575	26.78	29.04	25,089,311	61.84	36,332,212	81,421,523
2010	39.43	42.76	36,943,648	42.33	24,466,966	61,810,614	28.15	30.52	26,372,819	65,00	38,188,772	64,559,591
2011	41.44	44.94	38,827,774	44.48	26,135,217	64,962,992	29,58	32.07	27,712,540	68,31	40,130,471	67,843,010
2012	43.56	47.23	40,807,991	46.75	27,488,152	68,276,142	31.09	33.71	29,127,210	71.79	42,178,524	71,305,733
2013	45.78	49.64	42,889,198	49 14	28,869,003	71,758,202	32.68	35.44	30,816,829	75.45	44,330,274	74,947,103
2014	48.11	52.17	45,076,548	51 64	30,341,468	75,418,018	34.34	37.24	32,172,029	79.30	48,592,692	78,764,721
2015	50.57	54.83	47,375,451	54 28	31,888,781	79,264,233	36.09	39.13	33,811,547	83.35	48,967,470	82,779,017
2016	53,15	57.63	49,791,599	57 05	33,515,100	83,306,699	37.94	41.14	35,544,752	87.60	51,484,505	87,009,257
2017	55.88	50.57	52,330,971	59 98	35,224,582	87,555,554	39.87	43.23	37,352,906	92.08	54,088,997	91,441,903
2018	58.71	63.66	54,999,851	63 01	37,020,925	92,020,776	41 90	45.43	39,254,747	96.77	56,851,439	96,106,186
2019	61.70	66.90	57,804,843	66 23	38,909,211	96,714,054	44.04	47.75	41,259,643	101 69	59,745,435	101,006,078
2020	64,85	70.32	60,752,890	69 60	40,893,134	101,646,024	48.29	50 19	43,367,595	106.88	62,796,230	106,163,825
2021	68,15	73.90	63,851,287	73.15	42,978,703	106,829,991	48.65	52.75	45,578,602	112.33	65,996,582	111,575,184
2022	71.63	77.67	67,107,703	76.88	45,170,999	112,278,702	51.13	55.44	47,902,034	118.07	69,365,593	117,267,627
2023	75.28	81.63	70,530,196	\$0 81	47,474,643	118,004,838	53,74	58.27	50,347,258	124.09	72,903,165	123,250,423
Net Pre	sent Value (1/1/9-	4)	\$272,745,773		\$179,065,583	\$451,811,357			\$189,880,589		\$274, 9 62,821	\$464,043,411

Contract vs. Avoided Costs NPV of the Discount (1/1/91) \$9,801,864

97.20%

A.7+ 62791

1016 AM

^{* 90} Capacity Factor and 3 5% Voltage Adjustment

24734

NO. 24. NO. 1401-EQ

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

Orlando CoGen Limited, L.P. Contract Capacity 72 MW

Net Pres	ent Value (1/1/94)	\$194,863,383		\$284,128,249	\$478,991,632			\$196,209,942		\$284,128,249	\$480,338,191
2023	53,64	59.80	51,669,047	124.09	75,333,271	127,002,317	53.74	60.21	52,025,500	124.09	75,333,271	127,358,770
2022	51.03	56.89	49,154,949	118.07	71,677,780	120,832,729	51.13	57.29	49,498,768	118.07	71,677,780	121,176,548
2021	48.56	54.14	46,775,707	112.33	68,196,458	114,972,174	48.65	54.51	47,097,889	112.33	68,196,468	115,294,357
2020	48.20	51.51	44,502,423	106 88	64,889,437	109,391,860	48.29	51.87	44,813,182	106.88	64,889,437	109,702,619
2019	43.96	49.01	42,344,730	101 69	61,737,983	104,082,712	44.04	49.35	42,634,965	101.69	61,737,983	104,372,947
2018	41.82	46.62	40,283,362	96 77	58,746,487	99,029,849	41.90	46.95	40,583,239	96.77	58,745,487	99,309,725
2017	39.80	44.37	38,337,585	92.06	55,891,963	94,229,548	39.87	44.67	38,598,003	92.06	55,891,963	94,489,966
2016	37.86	42.21	36,468,869	87.60	53,179,989	89,648,857	37.94	42.51	36,729,577	87.60	53,179,989	49,909,566
2015	36.03	40.17	34,708,110	83.35	50,599,719	85,305,829	36.09	40.44	34,938,599	83.35	50,599,719	85,538,317
2014	34.28	38.22	33,020,412	79 30	48,145,782	\$1,166,194	34.34	38.49	33,244,430	79.30	48,145,782	81,390,211
2013	32.61	36.36	31,411,775	75.45	45,807,950	77,219,725	32.68	36,62	31,637,390	75.45	45,807,950	77,445,340
2012	31.04	34.61	29,899,463	71 79	43,584,475	73,483,938	31.09	34.84	30,098,117	71.79	43,584,475	73,582,591
2011	29.53	32.92	28,444,947	68.31	41,468,153	69,913,100	29.58	33.14	28,836,291	68.31	41,468,153	70,104,444
2010	28.09	31.32	27.057,458	65 00	39,459,664	66,517,523	28.15	31.54	27,251,913	65.00	39,459,664	66,711,578
2009	26.74	29.81	25,757,463	61.84	37,543,286	63,300,749	26.78	30.01	25,925,621	81.84	37,643,288	63,458,907
2008	25.43	28.35	24,495,5 94	58.64	35,720,315	60,215,913	25.48	28.55	24,667,096	58.84	35,720,315	60,387,411
2007	24.20	26.93	23,310,793	55.98	33,987,170	57,297,963	24.24	27.18	23,486,656	55.98	33,987,170	57,453,827
2006	23.02	25.66	22,174,151	53 27	32,341,465	54,515,616	23.07	25.85	22,333,984	53.27	32,341,485	54,675,448
2005	21.91	24.43	21,104,937	50.69	30,772,353	51,877,290	21.95	24.59	21,249,718	50.69	30,772,353	52,022,069
2004	20.85	23.25	20,083,886	48.23	29,277,449	49,361,335	20.88	23.40	20,213,853	48.23	29,277,449	49,491,302
2003	19.83	22 11	19,101,365	45.88	27,854,365	46,955,729	19.87	22.26	19,236,075	45.88	27,854,365	47,090,440
2002	18.87	21.04	18,176,639	43 56	26,504,994	44,681,633	18,91	21.19	18,306,703	43.66	28,504,994	44,811,696
2001	17.95	20.01	17,290,443	41.54	25,220,878	42,511,322	17.99	20.16	17,416,054	41.54	25,220,878	42,636,932
2000	17.08	19.04	16,452,411	39 52	23,994,156	40,446,567	17.12	19.18	16,573,810	39.52	23,994,156	40,567,966
1999	16.25	18.12	15,652,908	37.60	22,827,916	38,480,824	16.29	18.25	15,770,290	37.60	22,827,916	38,598,206
1998	15.46	17.24	14,891,936	35 78	21,719,769	36,611,705	15.50	17.37	15,005,494	35.78	21,719,769	36,725,263
1997	14.72	16.41	14,179,127	34 04	20,667,329	34,848,458	14.74	16.52	14,269,741	34.04	20,667,329	34,937,070
1996	14.00	15.61	13,485,583	32 39	19,662,735	33,148,318	14.02	15.71	13,572,711	32.39	19,662,735	33,235,446
1995	13.32	14,85	12,830,569	30 82	18,709,670	31,540,239	13.34	14.95	12,914,406	30.82	18,709,670	31,624,078
1994	12.68	14.14	12,214,085	29 32	17,800,870	30,014,955	12.70	14.23	12,294,824	29.32	17,800,870	30,095,894
Year	\$/XW/Mo.	\$/KW/Mo.	\$/Year	\$/MWH	\$/Year	\$/Year	\$/KW/Mo	\$/KW/Ma.	\$You!	\$/MWH	\$Year	\$/Year
Ω	Credits	Credits	Credits	& Var O&M	Payment	Payment	Cost	Cost	Cost	Cost	Cost	Cost
ORDER	Capacity	Capacity	Capacity	Fuel	Energy *	Contract	Capacity	Capacity	Capacity	Energy *	Energy	DebiovA
2 %	or by	99.5 % of	Contract	Avoided	Contract	Total	Avoided	Avoided	Avoided	Avoided	DebiovA	Tota!
ញ ស	10 AG	93/83 of						93/83 of				
22 F4	40 E											

 Contract vs. Avoided Costs
 99.72%

 NPV of the Discount (1/1/91)
 \$1,012,795

^{1.93} Capacity Factor and 3.5% Voltage Adjustment

Pasco Cogen Limited
Contract Capacity 102 MW

						COLLEGE GRADUSTI	102 1000					
								90/83 of				
		90/83 of	Contract	Avoided	Contract	Total	Avoided	Avoided	Avoided	Avoided	Avoided	Total
	Capacity	Capacity	Capacity	Fuel	Energy *	Contract	Capacity	Capacity	Capacity	Energy *	Energy	bebiovA
	Credita	Credits	Credits	& Var O&M	Payment	Payment	Cost	Cost	Cost	Cost	Cost	Cost
Year	\$/KW/Mo.	\$/KW/Mo.	S/Year	\$/MWH	\$fYear	\$/Year	\$/KW/Mo.	\$/KW/Mo.	\$/Year	\$/MWH	\$/Year	\$/Year
1993	12.07	13.09	6,674,855	28.05	9,727,211	16,402,067	12.08	13.10	6,680,386	28.05	9,727,211	16,407,597
1994	12.58	13.75	16,829,263	29.32	24,404,418	41,233,681	12.70	13.77	16,855,807	29.32	24,404,418	41,260,226
1995	13.32	14,44	17,678,689	30 82	25,650,354	43,329,043	13.34	14,47 ,	17,705,234	30.82	25,650,354	43,355,588
1996	14.00	15.18	18,581,205	32.39	26,956,975	45,538,180	14.02	15.20	18,607,749	32.39	26,956,975	45,564,725
1997	14.72	15.96	19,536,810	34 04	28,334,242	47,871,051	14.74	15.98	19,563,354	34,04	28,334,242	47,897,596
1998	15.32	16.61	20,333,147	35 78	29,777,103	50,110,250	15.50	16.81	20,572,048	35.78	29,777,103	50,349,151
1999	15.93	17.27	21,136,120	37.60	31,296,338	52,432,457	16.29	17.68	21,620,559	37.80	31,296,336	52,916,895
2000	16.74	18,15	22,215,648	39.52	32,895,214	55,110,903	17.12	18,58	22,722,159	39.52	32,895,214	55,617,373
2001	17.60	19,08	23,359,229	41.54	34,577,010	57,930,239	17,99	19.51	23,876,848	41.54	34,577,010	58,453,858
2002	18,49	20.05	24,543,913	43.66	38,337,491	60,881,405	18,91	20 50	25,097,899	43.66	36,337,491	61,435,390
2003	19.33	20.96	25,660,976	45.88	38,187,436	63,648,411	19.87	21.55	25,372,039	45.88	38,187,436	64,559,474
2004	20.22	21.93	26,842,541	48.23	40,138,438	084,086,00	20.88	22.64	27,712,540	48,23	40,138,438	67,850,978
2005	21.25	23.05	28,207,198	50 69	42,187,904	70,395,102	21.95	23.80	29,132,675	50.69	42,187,904	71,320,579
2006	22.34	24.22	29,650,294	53.27	44,339,105	73,989,396	23.07	25.02	30,619,171	53.27	44,339,105	74,954,276
2007	23.47	25.45	31,155,372	55.98	45,595,314	77,750,685	24.24	20.28	32,172,029	55.94	48,595,314	78,767,343
2008	24.54	26.61	32,570,131	58 84	48,971,399	81,541,531	25.48	27 63	33,817,793	58.84	48,971,399	82,789,192
2009	25.66	27.82	34,058,694	61.84	51,470,634	85,527,328	26.78	29.04	35,543,190	61.84	51,470,634	87,013,824
2010	26.97	29.24	35,790,586	65 00	54,097,927	49,888,513	28.15	30.52	37,361,494	65.00	54,097,927	91,459,421
2011	28.35	30.74	37,625,347	68.31	56,851,500	94,476,847	29.58	32.07	39,259,431	68.31	56,851,500	96,110,931
2012	29.79	32.30	39,538,149	71 79	59,752,909	99,291,058	31.09	33.71	41,263,547	71.79	59,752,909	101,016,456
2013	31.32	33.96	24,248,472	75 45	38,634,048	60,882,518	32.68	35.44	25,301,407	75.45	36,634,046	61,935,453
Net Pre	reent Value (8/1/93	1)	\$206,776,080		\$305,819,987	\$512,596,067			\$211,153,331		\$305,819,987	\$516,973,318

 Contract vs. Avoided Costs
 99.15%

 NPV of the Discount (1/1/2)
 \$3,292,284

42791

956 AM

^{* ,90} Capacity Factor and 3.5% Voltage Adjustment

NO 24734 NO 401-EQ

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

Ridge Generating Station Limited Partnership Contract Capacity 36 MW

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ORDER N	3.0 P.A							85/63 of				
E X	O Accel.	85/83 of	Contract	beblovA	Contract	Total	Avoided	Avoided	Avoided	Avoided	Avoided	Total
28.00	Capacity	Capacity	Capacity	Fuel	Energy *	Contract	Capacity	Capacity	Capacity	Energy *	Energy	Avoided
OA	Credits	Credits	Credita	& Var. O&M	Payment	Payment	Cost	Cost	Cost	Cost	Cost	Cost
Year	\$/KW/Mo	\$/KW/Mo.	S/Year	\$/MWH	\$/Year	\$/Year	\$/KW/Mo.	\$/KW/Mo.	\$Year	\$/MWH	\$/Your	\$/Year
1994	12.68	12.99	5,609,754	29.32	8,134,806	13,744,560	12.70	13.01	5,618,602	29.32	8,134,806	13,753,409
1995	13.32	13.54	5,892,896	30 82	8,550,118	14,443,014	13.34	13.66 4	5,901,745	30 82	8,550,118	14,451,863
1996	14.00	14.34	6,193,735	32.39	8,985,658	15,179,393	14.02	14.36	6,202,583	32.39	8,985,658	15,188,242
1997	14.72	15.07	6,512,270	34 04	9,444,747	15,957,017	14.74	15.10	5,521,118	34.04	9,444,747	15,965,865
1998	15.46	15.83	6,839,653	35 78	9,925,701	16,765,354	15.50	15.87	6,857,349	35.78	9,925,701	16,783,050
1999	16.25	16.64	7,189,157	37.60	10,432,112	17,621,269	16.29	15.58	7,206,853	37.60	10,432,112	17,638,965
2000	17.08	17.49	7,556,357	39.52	10,985,071	18,521,428	17.12	17.53	7,574,053	39.52	10,965,071	18,539,124
2001	17.95	18,38	7,941,253	41 54	11,525,670	19,460,923	17.99	18.42	7,958,949	41 54	11,525,670	19,484,619
2002	18.87	19.32	8,348,270	43.66	12,112,497	20,460,767	18,91	19.37	8,365,966	43.66	12,112,497	20,478,463
2003	19.83	20.31	8,772,983	45.88	12,729,145	21,502,128	19,87	20.35	1,790,580	45.88	12,729,145	21,519,825
2004	19.41	20.29	8,764,135	48 23	13,379,479	22,143,614	20.88	21.38	9,237,513	48.23	13,379,479	22,516,993
2005	20.81	21.31	9,206,545	50.89	14,062,635	23,269,179	21.95	22.48	9,710,892	50.69	14,062,835	23,773,526
2006	21.87	22.40	9,675,499	53 27	14,779,702	24,455,200	23.07	23 63	10,206,390	53.27	14,779,702	24,986,092
2007	22.99	23,54	10,170,998	55 94	15,531,771	25,702,769	24.24	24.82	10,724,010	55 98	15,531,771	20,255,781
200#	24.16	24.74	10,688,617	58 84	16,323,800	27,012,417	25.48	26.09	11,272,598	58.84	16,323,800	27,596,397
2009	25.39	26.00	11,232,781	61 84	17,156,878	28,389,659	26.78	27.43	11,847,730	61.84	17,156,878	29,004,508
2010	26.69	27.33	11,607,913	65.00	18,032,642	29,840,558	28.15	28.83	12,453,831	65.00	18,032,642	30,486,474
2011	28.05	28.73	12,409,590	68.31	18,950,500	31,360,090	29.58	30.29	13,086,477	68,31	18,950,500	32,036,977
2012	29.48	30.19	13,042,236	71 79	19,917,636	32,950,872	31.09	31.84	13,754,516	71.79	19,917,636	33,672,152
2013	30.98	31.73	13,705,851	75.45	20,933,741	34,639,591	32,68	33.47	14,457,947	75.45	20,933,741	35,391,588
2014	28.11	28.79	12,436,135	79.30	22,002,105	34,438,239	34.34	35.17	15,192,347	79.30	22,002,105	37,194,451
2015	29.54	30.25	13,068,781	83.35	23,123,627	36,192,308	36.09	38.96	15,968,564	\$3.35	23,123,527	39,090,091
2016	31.05	31.80	13,736,619	87 60	24,302,683	38,039,502	37.94	38.85	16,785,022	87.60	24,302,683	41,087,705
2017	32 63	33.42	14,435,827	92 06	25,542,026	39,977,853	39.87	40.83	17,638,872	92.06	25,542,026	43,180,898
2018	34.29	35.12	15,170,227	96 77	26,846,513	42,016,739	41.90	42.91	18,538,984	96.77	26,846,513	45,383,477
2019	36.05	36.92	15,948,867	101 69	28,213,594	44,162,462	44,04	45.10	19,483,720	101.69	28,213,594	47,697,315
2020	37.88	38.79	16,758,477	106 88	29,653,775	46,412,252	48.29	47.41	20,479,142	106.88	29,653,775	50,132,917
2021	39.79	40.75	17,603,480	112 33	31,165,052	48,768,532	48.65	49.82	21,523,229	112.33	31,165,052	52,688,281
2022	41.84	42.85	18,510,419	118.07	32,755,975	51,266,394	51.13	52.38	22,620,405	118.07	32,755,975	55,370,379
2023	43.98	45.04	19,457,176	124.09	34,428,495	53,883,671	53.74	55.03	23,775,094	124.09	34,426,495	58,201,589
Net Pre	ssent Value (1/1/94))	\$84,903,795		\$129,843,555	\$214,747,349			\$89,685,834		\$129,843,555	\$219,509,388

Contract vs. Avoided Costs
NPV of the Discount (1/1/91)

97.83% \$3,581,696

^{* .85} Capacity Factor and 3.5% Voltage Adjustment

Royster Phosphates, Inc. Contract Capacity 28 MW

		85/83 of					•	85/83 of				
		97.5% of	Contract	80%	Contract	Total	Avoided	Avoided	Avoided	Avoided	Avoided	Total
	Capacity	Capacity	Capacity	Avoided	Energy *	Contract	Capacity	Capacity	Capacity	Energy *	Energy	Avoided
	Credits	Credits	Credits	Fuel	Payment	Payment	Cost	Cost	Cost	Cost	Cost	Cost
Year	\$/KW/Mo.	\$/KW/Mo.	\$/Year	\$/MWH	\$/Year	SIYeer	\$/KW/Mo.	\$/KW/Mo.	\$/Ygar	\$/MWH	\$/Year	\$/Year
1993	18.04	18.01	504,359	18,29	328,838	833,197	12.08	12.37	346,390	28.05	504,374	850,764
1994	18.93	18.90	6,350,901	19.10	4,120,834	10,471,735	12.70	13.01	4,370,024	29.32	8,327,071	10,697,096
1995	19.90	19.87	8,676,330	20 07	4,330,915	11,007,245	13,34	13.66	4,590,246	30.82	6,650,092	11,240,338
1998	20.91	20.88	7,015,179	21.09	4,551,855	11,567,034	14.02	14.36	4,824,231	32.39	6,948,845	11,813,077
1997	21.98	21.95	7,374,158	22.17	4,783,996	12,158,154	14.74	15.10	5,071,981	34.04	7,345,915	12,417,895
1908	23.09	23.06	7,746,556	23.30	5,028,015	12,774,571	15.50	15.87	5,333,494	35.78	7,719,990	13,053,484
1999	24.27	24.23	8,142,439	24.49	5,284,422	13,426,861	16.29	15.68	5,605,330	37.60	8,113,865	13,719,195
2000	25.52	25,48	8,561,806	25.74	5,553,895	14,115,701	17.12	17.53	5,890,930	39.52	8,528,389	14,419,319
2001	26.81	26.77	8,994,593	27.05	5,837,113	14,831,707	17.99	18.42	6,190,294	41.54	8,964,410	15,154,704
2002	28.18	28.14	9,454,220	28.43	6,134,925	15,549,145	18.91	19.37	6,506,883	43.66	9,420,831	15,927,694
2003	29.62	29.58	9,937,332	29.88	6,447,840	16,385,171	19.87	20.35	6,837,195	45.88	9,900,446	16,737,641
2004	31.13	31.08	10,443,927	31.40	6,776,536	17,220,463	20.88	21.38	7,184,733	48.23	10,406,262	17,590,994
2005	32.72	32.67	10,977,363	33.01	7,122,201	18,099,564	21.95	22.48	7,552,916	50.69	10,937,605	18,490,520
2006	34.38	34.33	11,534,283	34.59	7,485,515	19,019,798	23.07	23.63	7,938,304	53.27	11,495,323	19,433,627
2007	36.14	36.09	12,124,752	35.45	7.867,155	19,981,907	24.24	24.62	8,340,896	55 98	12,080,267	20,421,163
2008	37.99	37.93	11,683,298	38.32	7,579,440	19,262,738	25.48	26.09	8,036,945	58.84	11,638,265	19,675,209
Net Pre	sent Value (12/1/	93)	\$66,949,567		\$43,442,209	\$110,391,776			\$46,062,879		\$66,706,022	\$112,768,901

Contract vs. Avoided Costs
NPV of the Discount (1/1/91)

97.89% \$1,787,919

62791

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^{* .85} Capacity Factor and 3.5% Voltage Adjustment