FLORIDA PUBLIC SERVICE COMMISSION

Fletcher Building
101 East Gaines Street
Tallahassee, Florida 32399-0850

M E M O R A N D U M

MAY 30, 1991

TO : DIRECTOR, DIVISION OF RECORDS AND REPORTING

FROM: DIVISION OF ELECTRIC AND GAS (SHINE, ~~BRADY~~) RES RJ JDJ
DIVISION OF LEGAL SERVICES (BROWN) MCB

RE : DOCKET NO. 910401-EQ, PETITION FOR APPROVAL OF CONTRACTS FOR PURCHASE OF FIRM CAPACITY AND ENERGY BY FLORIDA POWER CORPORATION

AGENDA: JUNE 11, 1991 - CONTROVERSIAL - PROPOSED AGENCY ACTION

CRITICAL DATES: NONE

CASE BACKGROUND

On January 11, 1991, Florida Power Corporation (FPC) solicited power through a Request for Proposal (RFP) from prospective Qualifying Facilities (QFs) who, prior to January 11, had initiated discussion with FPC and indicated that they could meet an in-service date no later than December 1, 1993.

FPC received thirteen proposals from prospective QFs and retained a consultant from National Economic Research Associates, Inc. to help evaluate the respective proposals.

Of the thirteen responses received two projects were eliminated based upon the lack of development maturity with a third project 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 to meet its need for capacity.

PROJECT FUEL TYPE & LOCATION	COMMITTED CAPACITY	COMMITTED ON-PEAK CAPACITY FACTOR	CONTRACT DATE OF THE QF
Dade County Municipal Solid Waste Miami	43 MW	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 Waste Polk County	36 MW	85%	January, 1994
Royster Phosphates Waste Heat from Processing Palmetto	28 MW	85%	December, 1993

These eight negotiated contracts total 559 MW of capacity. If a utility were to construct this amount of capacity it would have to come before the Commission with a petition for a need determination. However, because the capacity is made up of smaller projects, each with a <u>steam capacity</u> of less than 75 MW, the projects are not large enough to fall within the jurisdiction of the Florida Power Plant Siting Act. (See Attachment 1 DER letter from Hamilton Oven)

The QF projects are projected to avoid the 1991 need of 300 MW of coal and 150 MW of combustion turbine capacity which FPC identified in Docket No. 910004-EU, 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 CT unit with an 1997 in-service date for the Standard Offer contract.

When issuing the RFP FPC gave the QFs a choice of the coal or CT pricing, all eight QFs chose the coal pricing option. FPC maintains that the prices associated with the eight contracts are below the price of the 450 MW coal-fired generation, as well as 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 CT's total avoided cost on a net present value basis. Since the terms of all eight contracts exceed 2008, FPC maintains that the contracts were considered 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--Seminole Fertilizer (47 MW) and Ecopeat (36.5 MW). The Seminole Fertilizer contract was approved pursuant to Order No. 24099 and the Ecopeat contract was submitted for approval on May 1, 1991 and will be brought to the Commission at a later agenda in Docket No. 910549-EQ.

The 559 MW associated with the negotiated contracts added to the 83.5 MW associated with the Seminole and Ecopeat contracts exceed FPC's 450 MW need identified in their 1990 Facility Plan. FPC wishes to aquire the additional capacity to provide it with contingent capacity to cover qualifying facility projects that may not come into 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.

The Company signed contracts for the additional 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 come into fruition. Attachment 2 is FPC's winter reserve margin for the 1991-1995 period, ranging from 7.1% to 10.8% without the eight QF contracts and 7.7% to 17.6% with the QF contracts. The tie assisted LOLP is also included in Attachment 2.

FPC's Need for QF Capacity

Staff believes that it is important to explain the changes in FPC's need for additional capacity identified in its 1989 Annual Planning Hearing and the need for capacity identified in its current 1991 expansion plan submitted in Docket No. 910004-EU. The 1989 plan identified a need for 260 MW of CT capacity with an 1995 in-service date. The current 1991 plan identifies a need of 450 MW with a 1991 in-service date.

FPC maintains that the additional need was 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. The following paragraphs provide a more detailed explanation of FPC's change in modelling assumptions.

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 tie-lines 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) was increased, thereby accelerating FPC's need into the 1991 time frame.

Description of Contract Terms and Conditions

These negotiated contracts 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 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 increase or decrease the committed capacity by no more than 10%. After the one year period, and continuing 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 occuring 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 shown in Attachment 3 for the QFs are based on their committed on-peak capacity factors (83%-93%). FPC's avoided coal unit used for pricing these contracts contains a 83% on-peak capacity factor. The 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.

Comparison Between Negotiated Contract 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 the Company did not have to aquire additional interface capacity. The contract format used for each contract is summarized below:

1. 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 are for the above QFs which are directly interconnected to FPC.

3. Non-Interconnected Version

   - Dade County
   - Royster Phosphates, Inc.

   This contract version are for the above two QFs that will wheel their power through a Transmission Service Utility.

DISCUSSION OF ISSUES

ISSUE 1: Should the Commission approve the 559 MWs of negotiated contracts between Florida Power Corporation (FPC) and Dade County, El Dorado Energy Company, Lake Cogen Limited, Mulberry Energy Company, Orlando Co Gen Limited, Pasco Cogen Limited, Ridge Generating Station Limited Partnership, and Royster Phosphates.

RECOMMENDATION: Yes. Staff recommends approval of the negotiated contracts.

STAFF ANALYSIS: 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.

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 that affect the purchasing utility's general body of retail and wholesale customers:

a. Whether the additional firm capacity and energy is needed by the purchasing utility and by Florida utilities from a statewide perspective; and

b. The present worth of utility's payments for firm capacity and energy to the QF over the life of the contract are projected to be no greater: than the present worth of the year-by-year deferral of the construction and operation of generation 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; and

c. 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 generation by the purchasing utility or other capacity and energy related costs, whether the contract contains provisions to ensure repayment of such payments exceeding that year's value of deferring that capacity in the event that the QF fails to deliver firm capacity and energy pursuant to the negotiated contract; and

d. Considering the technical reliability, viability and financial stability of the QF, whether the contract contains provisions to protect the purchasing utility's ratepayers fails to deliver firm capacity and energy as specified by the contract.

Staff's analysis of the eight contracts as they relate to the four requirements of Section 25-17.0832(2), follows:

a. Need For Power

Staff is concerned with the fact that FPC has identified a need for 450 MW, but has signed contracts totalling 642.5 MW (including Seminole and Ecopeat) to meet this need. Staff does not favor utilities signing up more capacity than they need as a general policy. However, there are particular circumstances in this case which support such an action:

1. FPC's need is immediate and they cannot risk obtaining less than 450 MW because of possible QF defaults or delays.

2. 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.

3. If all of the QF contracts come on-line as contracted and FPC has excess capacity, FPC can reduce its purchase from Southern by 200 MW in 1994 and/or delay or cancel the construction of 1993 combustion turbines to mitigate any harmful effect to its ratepayers.

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 contribute to the capacity needs of the state.

b. Cost-Effectiveness

An analysis provided by FPC (Attachment 3) indicates 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 shows 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 as filed in Docket No. 910004-EU. Pursuant to the recent hearing in this docket, FPC is in the process of updating the K factor associated with their avoided cost. It is FPC's belief that the present worth savings of the eight contracts will increase with the revision to the K factor. Staff will distribute a summary sheet prior to the Agenda Conference identifying the changes. Since FPC projects that these contracts will have additional present worth savings above the $42,516,722, Staff continues to recommend approval of these contracts.

c. <u>Security for Early Payments</u>

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

d. <u>Security Against Default</u>

The contract contains security to protect FPC's ratepayers in the event the 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.

In conclusion, 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 for the following reasons:

1. The capacity and energy generated by the facilities is needed by FPC and Florida's utilities; and

2. The contracts appear to be cost-effective to FPC's ratepayers; and

3. 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 for these reasons that Staff believes that the contract between Florida Power Corporation and the QF's should be approved by the Commission.

ISSUE 2: Should this docket be closed after the protest period has passed, provided there are no objections to the proposes agency action order?

RECOMMENDATION: Yes, this docket should be closed after the effective date of the proposed agency action (PAA) order provided there are no objections to the proposed agency action.

STAFF ANALYSIS: This docket should be closed when the protest period has passed.

910401A.RS

Attachment 1

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor — Dale Twachtmann, Secretary — John Shearer, Assistant Secretary

November 26, 1990

Kennard F. Kosky, P.E.
KBN
1034 Northwest 57th Street
Gainesville, FL 32605

Dear Ken:

The Peoples Cogeneration Company projects described in your letter of November 15, 1990, are not large enough to fall within the jurisdiction of the Florida Electrical Power Plant Siting Act since their steam electric generating capacities will be less than 75 megawatts. Those power plant will be subject to permitting under provisions of Florida Administrative Code chapters 17-2 and 17-4.

Future correspondence on these projects should be addressed to Clair Fancy, Chief of Bureau of Air Regulation.

RECEIVED

Sincerely,

Hamilton S. Oven Jr.

HAMILTON S. OVEN, Jr., P.E.
Administrator
Office of Siting Coordination
Division of Air Resources Management

HSO/ah
cc: Clair Fancy

Attachment 2

TABLE 1

COGENERATION DOCKET
RESERVE MARGINS & LOLP

		(1)	(2)	(3)	(4)
		BASE WITH NO NEW QF's	BASE WITH NO NEW QF's (1)	559 MW WITH ALL 8 PROPOSED QF's APPROVED	559 MW WITH ALL 8 PROPOSED QF's APPROVED (1)
YEAR	SEASON	RESERVES (%)	LOLP (DAYS/YEAR)	RESERVES (%)	LOLP (DAYS/YEAR)
1990/91	WINTER	9.5		9.5	
1991/92	WINTER	7.1		7.7	
1992/93	WINTER	9.1		9.7	
1993/94	WINTER	10.8		17.6	
1994/95	WINTER	8.4		16.0	
1995/96	WINTER	7.7		15.1	
1996/97	WINTER	11.5		18.7	
1997/98	WINTER	8.4		15.3	
1998/99	WINTER	14.0		20.8	
1999/00	WINTER	11.1		17.7	
2000/01	WINTER	16.5		22.9	
1991	SUMMER	24.3	0.4914	24.3	0.4914
1992	SUMMER	20.9	0.6254	21.7	0.6254
1993	SUMMER	22.1	0.3670	26.4	0.3182
1994	SUMMER	23.0	0.2223	31.2	0.0376
1995	SUMMER	20.1	0.3796	29.1	0.0725
1996	SUMMER	19.3	0.1534	28.1	0.0197
1997	SUMMER	23.7	0.2911	32.3	0.0467
1998	SUMMER	20.4	0.3672	28.7	0.0679
1999	SUMMER	27.2	0.1868	35.3	0.0296
2000	SUMMER	24.2	0.4129	32.1	0.0761
2001	SUMMER	30.8	0.1529	38.5	0.0265

1. Tie assisted LOLP for the calendar year
One day in ten years = 0.1

SUMMARY OF CONTRACTS
SHOWING COST EFFECTIVENESS

Company Name	NPV of Discount (1/1/91)	Contract/ Avoided (Percent)
Dade County	$0	100.00%
El Dorado Energy Company	$21,066,531	94.90%
Lake Cogen Limited	$2,999,974	99.23%
Mulberry Energy Company, Inc	$9,534,483	97.27%
Orlando CoGen Limited, L.P.	$736,500	99.80%
Pasco Cogen Limited	$2,999,974	99.23%
Ridge Generating Station Limited Partnership	$3,455,433	97.91%
Royster Phosphates, Inc.	$1,722,692	97.97%
Total	$42,516,772	

AJH 3/16/91
2:45 PM

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

Dade County

Contract Capacity 43 MW

Year	Capacity Credits $/KW/Mo.	Contract Capacity Credits $/Year	Avoided Fuel & Var O&M $/MWH	Contract Energy * Payment $/Year	Total Contract Payment $/Year	Avoided Capacity Cost $/KW/Mo.	Avoided Capacity Cost $/Year	Avoided Energy * Cost $/MWH	Avoided Energy Cost $/Year	Total Avoided Cost $/Year
1991	10.92	939,120	25.77	1,389,892	2,329,012	10.92	939,120	25.77	1,389,892	2,329,012
1992	11.48	5,923,680	26.88	8,696,926	14,620,606	11.48	5,923,680	26.88	8,696,926	14,620,606
1993	12.07	6,228,120	28.05	9,076,188	15,304,308	12.07	6,228,120	28.05	9,076,188	15,304,308
1994	12.68	6,542,880	29.32	9,487,949	16,030,829	12.68	6,542,880	29.32	9,487,949	16,030,829
1995	13.32	6,873,120	30.82	9,972,344	16,845,464	13.32	6,873,120	30.82	9,972,344	16,845,464
1996	14.00	7,224,000	32.39	10,480,332	17,704,332	14.00	7,224,000	32.39	10,480,332	17,704,332
1997	14.72	7,595,520	34.04	11,015,785	18,611,305	14.72	7,595,520	34.04	11,015,785	18,611,305
1998	15.46	7,977,360	35.78	11,576,741	19,554,101	15.46	7,977,360	35.78	11,576,741	19,554,101
1999	16.25	8,385,000	37.60	12,167,388	20,552,388	16.25	8,385,000	37.60	12,167,388	20,552,388
2000	17.08	8,813,280	39.52	12,789,000	21,602,280	17.08	8,813,280	39.52	12,789,000	21,602,280
2001	17.95	9,262,200	41.54	13,442,849	22,705,049	17.95	9,262,200	41.54	13,442,849	22,705,049
2002	18.87	9,736,920	43.66	14,127,288	23,864,208	18.87	9,736,920	43.66	14,127,288	23,864,208
2003	19.83	10,232,280	45.88	14,846,510	25,078,790	19.83	10,232,280	45.88	14,846,510	25,078,790
2004	20.85	10,758,600	48.23	15,605,020	26,363,620	20.85	10,758,600	48.23	15,605,020	26,363,620
2005	21.91	11,305,560	50.69	16,401,811	27,707,371	21.91	11,305,560	50.69	16,401,811	27,707,371
2006	23.02	11,878,320	53.27	17,238,155	29,116,475	23.02	11,878,320	53.27	17,238,155	29,116,475
2007	24.20	12,487,200	55.98	18,115,324	30,602,524	24.20	12,487,200	55.98	18,115,324	30,602,524
2008	25.43	13,121,880	58.84	19,039,099	32,160,979	25.43	13,121,880	58.84	19,039,099	32,160,979
2009	26.74	13,797,840	61.84	20,010,751	33,808,591	26.74	13,797,840	61.84	20,010,751	33,808,591
2010	28.09	14,494,440	65.00	21,032,190	35,526,630	28.09	14,494,440	65.00	21,032,190	35,526,630
2011	29.53	15,237,480	68.31	22,102,724	37,340,204	29.53	15,237,480	68.31	22,102,724	37,340,204
2012	31.04	16,016,640	71.79	23,230,733	39,247,373	31.04	16,016,640	71.79	23,230,733	39,247,373
2013	32.61	15,424,530	75.45	22,381,202	37,805,732	32.61	15,424,530	75.45	22,381,202	37,805,732
Net Present Value (11/1/91)		$79,714,094		$115,807,122	$195,521,216		$79,714,094		$115,807,122	$195,521,216

Contract vs. Avoided Costs 100.00%
NPV of the Discount (1/1/91) $0

* .83 Capacity Factor and 3.5% Voltage Adjustment

AJH
31891
133 PM

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

El Dorado Energy Company
Contract Capacity 103.88 MW

Year	Capacity Credits $/KW/Mo.	92/83 of 87.5% of Capacity Credits $/KW/Mo.	Contract Capacity Credits $/Year	Avoided Fuel & Var O&M $/MWH	Contract Energy * Payment $/Year	Total Contract Payment $/Year	Avoided Capacity Cost $/KW/Mo.	92/83 of Avoided Capacity Cost $/KW/Mo.	Avoided Capacity Cost $/Year	Avoided Energy * Cost $/MWH	Avoided Energy Cost $/Year	Total Avoided Cost $/Year
1994	12.68	12.30	15,330,285	29.32	25,406,541	40,736,826	12.68	14.05	17,520,326	29.32	25,406,541	42,926,867
1995	13.32	12.92	16,104,053	30.82	26,703,639	42,807,692	13.32	14.76	18,404,632	30.82	26,703,639	45,108,272
1996	14.00	13.58	16,926,182	32.39	28,063,914	44,990,097	14.00	15.52	19,344,208	32.39	28,063,914	47,408,123
1997	14.72	14.28	17,796,672	34.04	29,497,736	47,294,407	14.72	16.32	20,339,053	34.04	29,497,736	49,836,789
1998	15.46	14.99	18,691,341	35.78	30,999,845	49,691,186	15.46	17.14	21,361,533	35.78	30,999,845	52,361,378
1999	16.25	15.76	19,646,461	37.60	32,581,463	52,227,925	16.25	18.01	22,453,099	37.60	32,581,463	55,034,562
2000	17.08	16.57	20,649,942	39.52	34,245,997	54,895,939	17.08	18.93	23,599,934	39.52	34,245,997	57,845,931
2001	17.95	17.41	21,701,784	41.54	35,996,852	57,698,636	17.95	19.90	24,802,038	41.54	35,996,852	60,798,891
2002	18.87	18.30	22,814,076	43.66	37,829,624	60,643,700	18.87	20.92	26,073,229	43.66	37,829,624	63,902,854
2003	19.83	19.23	23,974,728	45.88	39,755,533	63,730,261	19.83	21.98	27,399,689	45.88	39,755,533	67,155,222
2004	20.85	20.22	25,207,921	48.23	41,786,650	66,994,572	20.85	23.11	28,809,053	48.23	41,786,650	70,595,703
2005	21.91	21.25	26,489,475	50.69	43,920,273	70,409,749	21.91	24.29	30,273,686	50.69	43,920,273	74,193,959
2006	23.02	22.33	27,831,480	53.27	46,159,810	73,991,289	23.02	25.52	31,807,405	53.27	46,159,810	77,967,215
2007	24.20	23.47	29,258,115	55.98	48,508,666	77,766,781	24.20	26.82	33,437,846	55.98	48,508,666	81,946,511
2008	25.43	24.66	30,745,201	58.84	50,982,321	81,727,522	25.43	28.19	35,137,372	58.84	50,982,321	86,119,693
2009	26.74	25.93	32,329,008	61.84	53,584,182	85,913,190	26.74	29.64	36,947,438	61.84	53,584,182	90,531,620
2010	28.09	27.24	33,961,176	65.00	56,319,360	90,280,535	28.09	31.14	38,812,772	65.00	56,319,360	95,132,132
2011	29.53	28.64	35,702,154	68.31	59,186,003	94,888,158	29.53	32.73	40,802,462	68.31	59,186,003	99,988,465
2012	31.04	30.11	37,527,764	71.79	62,206,553	99,734,317	31.04	34.41	42,888,873	71.79	62,206,553	105,095,426
2013	32.62	31.64	39,438,004	75.45	65,380,040	104,818,044	32.62	36.16	45,072,005	75.45	65,380,040	110,452,045
Net Present Value (1/1/94)			$196,062,828		$325,081,123	$521,143,952			$224,071,804		$325,081,123	$549,152,927

Contract vs. Avoided Costs 94.90%
NPV of the Discount (1/1/91) $21,066,531

* .92 Capacity Factor and 3.5% Voltage Adjustment

AJH
31891
1018 AM

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

Lake Cogen Limited
Contract Capacity 102 MW

Year	Capacity Credits $/KW/Mo.	90/83 of Capacity Credits $/KW/Mo.	Contract Capacity Credits $/Year	Avoided Fuel & Var O&M $/MWH	Contract Energy * Payment $/Year	Total Contract Payment $/Year	Avoided Capacity Cost $/KW/Mo.	90/83 of Avoided Capacity Cost $/KW/Mo.	Avoided Capacity Cost $/Year	Avoided Energy * Cost $/MWH	Avoided Energy Cost $/Year	Total Avoided Cost $/Year
1993	12.07	13.09	6,674,855	28.05	9,727,211	16,402,067	12.07	13.09	6,674,855	28.05	9,727,211	16,402,067
1994	12.68	13.75	16,829,263	29.32	24,404,418	41,233,681	12.68	13.75	16,829,263	29.32	24,404,418	41,233,681
1995	13.32	14.44	17,678,689	30.82	25,650,354	43,329,043	13.32	14.44	17,678,689	30.82	25,650,354	43,329,043
1996	14.00	15.18	18,581,205	32.39	26,956,975	45,538,180	14.00	15.18	18,581,205	32.39	26,956,975	45,538,180
1997	14.72	15.96	19,536,810	34.04	28,334,242	47,871,051	14.72	15.96	19,536,810	34.04	28,334,242	47,871,051
1998	15.32	16.61	20,333,147	35.78	29,777,103	50,110,250	15.46	16.76	20,518,959	35.78	29,777,103	50,296,062
1999	15.93	17.27	21,136,120	37.60	31,296,336	52,432,457	16.25	17.62	21,567,470	37.60	31,296,336	52,863,806
2000	16.74	18.15	22,215,688	39.52	32,895,214	55,110,903	17.08	18.52	22,669,070	39.52	32,895,214	55,564,284
2001	17.60	19.08	23,359,229	41.54	34,577,010	57,936,239	17.95	19.46	23,823,759	41.54	34,577,010	58,400,769
2002	18.49	20.05	24,543,913	43.66	36,337,491	60,881,405	18.87	20.46	25,044,810	43.66	36,337,491	61,382,301
2003	19.33	20.96	25,660,976	45.88	38,187,436	63,848,411	19.83	21.50	26,318,949	45.88	38,187,436	64,506,385
2004	20.22	21.93	26,842,541	48.23	40,138,438	66,980,980	20.85	22.61	27,672,723	48.23	40,138,438	67,811,161
2005	21.25	23.05	28,207,198	50.69	42,187,904	70,395,102	21.91	23.76	29,079,586	50.69	42,187,904	71,267,490
2006	22.34	24.22	29,650,294	53.27	44,339,105	73,989,399	23.02	24.96	30,552,810	53.27	44,339,105	74,891,915
2007	23.47	25.45	31,155,372	55.98	46,595,314	77,750,685	24.20	26.24	32,118,940	55.98	46,595,314	78,714,254
2008	24.54	26.61	32,570,131	58.84	48,971,399	81,541,531	25.43	27.57	33,751,431	58.84	48,971,399	82,722,831
2009	25.66	27.82	34,056,694	61.84	51,470,634	85,527,328	26.74	29.00	35,490,101	61.84	51,470,634	86,960,735
2010	26.97	29.24	35,790,586	65.00	54,097,927	89,888,513	28.09	30.46	37,281,860	65.00	54,097,927	91,379,787
2011	28.35	30.74	37,625,347	68.31	56,851,500	94,476,847	29.53	32.02	39,193,070	68.31	56,851,500	96,044,570
2012	29.79	32.30	39,538,149	71.79	59,752,909	99,291,058	31.04	33.66	41,197,186	71.79	59,752,909	100,950,094
2013	31.32	33.96	24,248,472	75.45	36,634,046	60,882,518	32.61	35.36	25,247,212	75.45	36,634,046	61,881,258
Net Present Value (8/1/93)			$208,776,080		$305,819,987	$512,596,067			$210,764,691		$305,819,987	$516,584,678

Contract vs. Avoided Costs 99.23%
NPV of the Discount (1/1/91) $2,999,974

* .90 Capacity Factor and 3.5% Voltage Adjustment

AJH
31891
129 PM

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

Mulberry Energy Company
Contract Capacity 72 MW

Year	Capacity Credits $/KW/Mo.	90/83 of Capacity Credits $/KW/Mo.	Contract Capacity Credits $/Year	80% of Avoided Fuel $/MWH	Contract Energy * Payment $/Year	Total Contract Payment $/Year	Avoided Capacity Cost $/KW/Mo.	90/83 of Avoided Capacity Cost $/KW/Mo.	Avoided Capacity Cost $/Year	Avoided Energy * Cost $/MWH	Avoided Energy Cost $/Year	Total Avoided Cost $/Year
1994	18.93	20.53	17,734,901	19.10	11,219,750	28,954,651	12.68	13.75	11,879,480	29.32	17,226,648	29,106,128
1995	19.90	21.58	18,643,663	20.07	11,791,734	30,435,397	13.32	14.44	12,479,075	30.82	18,106,132	30,585,207
1996	20.91	22.67	19,589,899	21.09	12,393,287	31,983,186	14.00	15.18	13,116,145	32.39	19,028,453	32,144,598
1997	21.98	23.83	20,592,347	22.17	13,025,334	33,617,681	14.72	15.96	13,790,689	34.04	20,000,641	33,791,330
1998	23.10	25.05	21,641,639	23.30	13,689,722	35,331,360	15.46	16.76	14,483,971	35.78	21,019,131	35,503,102
1999	24.05	26.08	22,528,946	24.49	14,387,837	36,916,783	16.25	17.62	15,224,096	37.60	22,091,531	37,315,628
2000	25.03	27.14	23,452,633	25.74	15,121,529	38,574,161	17.08	18.52	16,001,696	39.52	23,220,151	39,221,848
2001	26.06	28.26	24,414,190	27.05	15,892,644	40,306,835	17.95	19.46	16,816,771	41.54	24,407,301	41,224,072
2002	27.13	29.42	25,415,172	28.43	16,703,493	42,118,666	18.87	20.46	17,678,689	43.66	25,649,994	43,328,683
2003	28.24	30.62	26,457,194	29.88	17,555,463	44,012,657	19.83	21.50	18,578,082	45.88	26,955,837	45,533,919
2004	29.40	31.88	27,541,939	31.40	18,450,400	45,992,339	20.85	22.61	19,533,687	48.23	28,333,015	47,866,702
2005	30.75	33.34	28,808,868	33.01	19,391,539	48,200,408	21.91	23.76	20,526,766	50.69	29,779,697	50,306,463
2006	32.32	35.04	30,278,121	34.60	20,380,729	50,658,850	23.02	24.96	21,566,689	53.27	31,298,192	52,864,881
2007	33.97	36.83	31,822,305	36.46	21,419,617	53,242,122	24.20	26.24	22,672,193	55.98	32,890,810	55,563,003
2008	35.70	38.71	33,445,242	38.32	22,512,500	55,957,743	25.43	27.57	23,824,540	58.84	34,568,047	58,392,586
2009	37.52	40.68	35,150,950	40.27	23,660,626	58,811,575	26.74	29.00	25,051,836	61.84	36,332,212	61,384,048
2010	39.43	42.76	36,943,648	42.33	24,866,966	61,810,614	28.09	30.46	26,316,607	65.00	38,186,772	64,503,379
2011	41.44	44.94	38,827,774	44.48	26,135,217	64,962,992	29.53	32.02	27,665,696	68.31	40,130,471	67,796,167
2012	43.56	47.23	40,807,991	46.75	27,468,152	68,276,142	31.04	33.66	29,080,366	71.79	42,178,524	71,258,890
2013	45.78	49.64	42,889,198	49.14	28,869,003	71,758,202	32.61	35.36	30,551,248	75.45	44,330,274	74,881,522
2014	48.11	52.17	45,076,548	51.64	30,341,468	75,418,016	34.28	37.17	32,116,817	79.30	46,592,692	78,708,509
2015	50.57	54.83	47,375,451	54.28	31,888,781	79,264,233	36.03	39.07	33,755,335	83.35	48,967,470	82,722,805
2016	53.15	57.63	49,791,599	57.05	33,515,100	83,306,699	37.86	41.05	35,469,802	87.60	51,464,505	86,934,308
2017	55.86	60.57	52,330,971	59.96	35,224,582	87,555,554	39.80	43.16	37,287,325	92.06	54,088,997	91,376,322
2018	58.71	63.66	54,999,851	63.01	37,020,925	92,020,776	41.82	45.35	39,179,798	96.77	56,851,439	96,031,236
2019	61.70	66.90	57,804,843	66.23	38,909,211	96,714,054	43.96	47.67	41,184,694	101.69	59,746,435	100,931,129
2020	64.85	70.32	60,752,890	69.60	40,893,134	101,646,024	46.20	50.10	43,283,277	106.88	62,796,230	106,079,507
2021	68.15	73.90	63,851,287	73.15	42,978,703	106,829,991	48.56	52.66	45,494,284	112.33	65,996,582	111,490,866
2022	71.63	77.67	67,107,703	76.88	45,170,999	112,278,702	51.03	55.33	47,808,347	118.07	69,365,593	117,173,940
2023	75.28	81.63	70,530,196	80.81	47,474,643	118,004,838	53.64	58.16	50,253,571	124.09	72,903,165	123,156,736
Net Present Value (1/1/94)			$272,745,773		$179,065,583	$451,811,357			$189,525,093		$274,962,821	$464,487,914

Contract vs. Avoided Costs 97.27%
NPV of the Discount (1/1/91) $9,534,483

* .90 Capacity Factor and 3.5% Voltage Adjustment

AJH
31891
1109 AM

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

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

Year	Capacity Credits $/KW/Mo.	93/93 of 98.5 % of Capacity Credits $/KW/Mo.	Contract Capacity Credits $/Year	Avoided Fuel & Var O&M $/MWH	Contract Energy * Payment $/Year	Total Contract Payment $/Year	Avoided Capacity Cost $/KW/Mo.	93/93 of Avoided Capacity Cost $/KW/Mo.	Avoided Capacity Cost $/Year	Avoided Energy * Cost $/MWH	Avoided Energy Cost $/Year	Total Avoided Cost $/Year
1994	12.62	14.14	12,214,086	29.32	17,800,870	30,014,956	12.68	14.21	12,275,462	29.32	17,800,870	30,076,332
1995	13.40	14.85	12,830,500	30.82	18,709,670	31,540,229	13.32	14.93	12,895,844	30.82	18,709,670	31,604,714
1996	14.15	15.61	13,485,563	32.39	19,662,735	33,148,318	14.00	15.69	13,553,349	32.39	19,662,735	33,216,084
1997	14.88	16.41	14,179,127	34.04	20,667,329	34,846,456	14.72	16.49	14,250,378	34.04	20,667,329	34,917,706
1998	15.63	17.24	14,901,906	35.78	21,719,769	36,611,705	15.46	17.32	14,986,770	35.78	21,719,769	36,696,539
1999	16.48	18.12	15,652,908	37.60	22,827,916	38,480,824	16.25	18.21	15,731,566	37.60	22,827,916	38,559,482
2000	17.27	19.04	16,452,411	39.52	23,994,156	40,446,567	17.08	19.14	16,530,066	39.52	23,994,156	40,528,243
2001	18.15	20.01	17,290,443	41.54	25,220,878	42,511,322	17.95	20.11	17,377,830	41.54	25,220,878	42,598,208
2002	19.02	21.04	18,176,830	43.66	26,504,994	44,681,825	18.87	21.14	18,267,979	43.66	26,504,994	44,772,973
2003	20.05	22.11	19,101,306	45.89	27,854,365	46,955,729	19.83	22.22	19,197,351	45.89	27,854,365	47,051,716
2004	21.06	23.25	20,083,888	48.23	29,277,449	49,361,335	20.85	23.36	20,184,810	48.23	29,277,449	49,462,259
2005	22.15	24.43	21,104,087	50.69	30,772,353	51,877,290	21.91	24.55	21,210,992	50.69	30,772,353	51,983,345
2006	23.27	25.66	22,174,161	53.27	32,341,485	54,515,646	23.02	25.79	22,286,579	53.27	32,341,485	54,627,044
2007	24.46	26.96	23,310,788	55.98	33,987,170	57,297,963	24.20	27.12	23,427,888	55.98	33,987,170	57,415,103
2008	25.71	28.35	24,495,588	58.84	35,720,315	60,215,913	25.43	28.49	24,618,691	58.84	35,720,315	60,339,006
2009	27.02	29.81	25,757,463	61.84	37,543,286	63,300,749	26.74	29.96	25,886,897	61.84	37,543,286	63,430,183
2010	28.40	31.32	27,057,658	65.00	39,459,664	66,517,523	28.09	31.47	27,193,827	65.00	39,459,664	66,653,492
2011	29.85	32.92	28,444,947	68.31	41,468,153	69,913,100	29.53	33.08	28,587,886	68.31	41,468,153	70,056,039
2012	31.38	34.61	29,899,463	71.79	43,584,475	73,483,938	31.04	34.78	30,049,712	71.79	43,584,475	73,634,186
2013	32.98	36.38	31,411,776	75.46	45,807,950	77,219,725	32.61	36.54	31,569,623	75.46	45,807,950	77,377,573
2014	34.66	38.22	33,020,412	79.30	48,145,782	81,166,194	34.28	38.41	33,186,344	79.30	48,145,782	81,332,126
2015	36.42	40.17	34,708,110	83.35	50,599,719	85,306,829	36.03	40.37	34,880,513	83.35	50,599,719	85,480,231
2016	38.27	42.21	36,465,899	87.60	53,179,989	89,645,857	37.88	42.42	36,652,129	87.60	53,179,989	89,832,118
2017	40.23	44.37	38,337,685	92.06	55,891,963	94,229,649	39.80	44.60	38,530,236	92.06	55,891,963	94,422,199
2018	42.27	46.62	40,283,362	96.77	58,746,487	99,029,849	41.82	46.86	40,485,791	96.77	58,746,487	99,232,278
2019	44.44	49.01	42,344,730	101.69	61,737,983	104,082,712	43.96	49.26	42,557,517	101.69	61,737,983	104,295,500
2020	46.70	51.51	44,502,423	106.88	64,889,437	109,391,860	46.20	51.77	44,726,053	106.88	64,889,437	109,615,490
2021	49.09	54.14	46,775,707	112.33	68,196,468	114,972,174	48.56	54.41	47,010,760	112.33	68,196,468	115,207,228
2022	51.62	56.89	49,164,949	118.07	71,677,780	120,842,729	51.03	57.19	49,401,959	118.07	71,677,780	121,079,739
2023	54.22	59.80	51,669,047	124.09	75,333,271	127,002,317	53.64	60.10	51,928,690	124.09	75,333,271	127,261,961
Net Present Value (1/1/94)			$194,863,363		$284,128,249	$478,961,632			$195,842,596		$284,128,249	$479,970,845

Contract vs. Avoided Costs 99.80%
NPV of the Discount (1/1/91) $736,560

* .93 Capacity Factor and 3.5% Voltage Adjustment

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

Pasco Cogen Limited
Contract Capacity 102 MW

Year	Capacity Credits $/KW/Mo.	90/83 of Capacity Credits $/KW/Mo.	Contract Capacity Credits $/Year	Avoided Fuel & Var O&M $/MWH	Contract Energy * Payment $/Year	Total Contract Payment $/Year	Avoided Capacity Cost $/KW/Mo.	90/83 of Avoided Capacity Cost $/KW/Mo.	Avoided Capacity Cost $/Year	Avoided Energy * Cost $/MWH	Avoided Energy Cost $/Year	Total Avoided Cost $/Year
1993	12.07	13.09	6,674,855	28.05	9,727,211	16,402,067	12.07	13.09	6,674,855	28.05	9,727,211	16,402,067
1994	12.68	13.75	16,829,263	29.32	24,404,418	41,233,681	12.68	13.75	16,829,263	29.32	24,404,418	41,233,681
1995	13.32	14.44	17,678,689	30.82	25,650,354	43,329,043	13.32	14.44	17,678,689	30.82	25,650,354	43,329,043
1996	14.00	15.18	18,581,205	32.39	26,956,975	45,538,180	14.00	15.18	18,581,205	32.39	26,956,975	45,538,180
1997	14.72	15.96	19,536,810	34.04	28,334,242	47,871,051	14.72	15.96	19,536,810	34.04	28,334,242	47,871,051
1998	15.32	16.61	20,333,147	35.78	29,777,103	50,110,250	15.46	16.76	20,518,959	35.78	29,777,103	50,296,062
1999	15.93	17.27	21,136,120	37.60	31,296,336	52,432,457	16.25	17.62	21,567,470	37.60	31,296,336	52,863,806
2000	16.74	18.15	22,215,688	39.52	32,895,214	55,110,903	17.08	18.52	22,669,070	39.52	32,895,214	55,564,284
2001	17.60	19.08	23,359,229	41.54	34,577,010	57,936,239	17.95	19.46	23,823,759	41.54	34,577,010	58,400,769
2002	18.49	20.05	24,543,913	43.66	36,337,491	60,881,405	18.87	20.46	25,044,810	43.66	36,337,491	61,382,301
2003	19.33	20.96	25,660,976	45.88	38,187,436	63,848,411	19.83	21.50	26,318,949	45.88	38,187,436	64,506,385
2004	20.22	21.93	26,842,541	48.23	40,138,438	66,980,980	20.85	22.61	27,672,723	48.23	40,138,438	67,811,161
2005	21.25	23.05	28,207,198	50.69	42,187,904	70,395,102	21.91	23.76	29,079,586	50.69	42,187,904	71,267,490
2006	22.34	24.22	29,650,294	53.27	44,339,105	73,989,399	23.02	24.96	30,552,810	53.27	44,339,105	74,891,915
2007	23.47	25.45	31,155,372	55.98	46,595,314	77,750,685	24.20	26.24	32,118,940	55.98	46,595,314	78,714,254
2008	24.54	26.61	32,570,131	58.84	48,971,399	81,541,531	25.43	27.57	33,751,431	58.84	48,971,399	82,722,831
2009	25.66	27.82	34,056,694	61.84	51,470,634	85,527,328	26.74	29.00	35,490,101	61.84	51,470,634	86,960,735
2010	26.97	29.24	35,790,586	65.00	54,097,927	89,888,513	28.09	30.46	37,281,860	65.00	54,097,927	91,379,787
2011	28.35	30.74	37,625,347	68.31	56,851,500	94,476,847	29.53	32.02	39,193,070	68.31	56,851,500	96,044,570
2012	29.79	32.30	39,538,149	71.79	59,752,909	99,291,058	31.04	33.66	41,197,186	71.79	59,752,909	100,950,094
2013	31.32	33.96	24,248,472	75.45	36,634,046	60,882,518	32.61	35.36	25,247,212	75.45	36,634,046	61,881,258
Net Present Value (8/1/93)			$206,776,080		$305,819,987	$512,596,067			$210,764,691		$305,819,987	$516,584,678

Contract vs. Avoided Costs 99.23%
NPV of the Discount (1/1/91) $2,999,974

* .90 Capacity Factor and 3.5% Voltage Adjustment

AJH
31891
131 PM

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

Ridge Generating Station Limited Partnership

Contract Capacity 36 MW

Year	Accel. Capacity Credits $/KW/Mo.	85/83 of Capacity Credits $/KW/Mo.	Contract Capacity Credits $/Year	Avoided Fuel & Var. O&M $/MWH	Contract Energy * Payment $/Year	Total Contract Payment $/Year	Avoided Capacity Cost $/KW/Mo.	85/83 of Avoided Capacity Cost $/KW/Mo.	Avoided Capacity Cost $/Year	Avoided Energy * Cost $/MWH	Avoided Energy Cost $/Year	Total Avoided Cost $/Year
1994	12.68	12.99	5,609,754	29.32	8,134,806	13,744,560	12.68	12.99	5,609,754	29.32	8,134,806	13,744,560
1995	13.32	13.64	5,892,896	30.82	8,550,118	14,443,014	13.32	13.64	5,892,896	30.82	8,550,118	14,443,014
1996	14.00	14.34	6,193,735	32.39	8,985,658	15,179,393	14.00	14.34	6,193,735	32.39	8,985,658	15,179,393
1967	14.72	15.07	6,512,270	34.04	9,444,747	15,957,017	14.72	15.07	6,512,270	34.04	9,444,747	15,957,017
1998	15.46	15.83	6,839,653	35.78	9,925,701	16,765,354	15.46	15.83	6,839,653	35.78	9,925,701	16,765,354
1999	16.25	16.64	7,189,157	37.60	10,432,112	17,621,269	16.25	16.64	7,189,157	37.60	10,432,112	17,621,269
2000	17.08	17.49	7,556,357	39.52	10,965,071	18,521,428	17.08	17.49	7,556,357	39.52	10,965,071	18,521,428
2001	17.95	18.38	7,941,253	41.54	11,525,670	19,466,923	17.95	18.38	7,941,253	41.54	11,525,670	19,466,923
2002	18.87	19.32	8,348,270	43.66	12,112,497	20,460,767	18.87	19.32	8,348,270	43.66	12,112,497	20,460,767
2003	19.83	20.31	8,772,983	45.88	12,729,145	21,502,128	19.83	20.31	8,772,983	45.88	12,729,145	21,502,128
2004	19.81	20.29	8,764,135	48.23	13,379,479	22,143,614	20.85	21.35	9,224,241	48.23	13,379,479	22,603,720
2005	20.81	21.31	9,206,545	50.69	14,062,635	23,269,179	21.91	22.44	9,693,195	50.69	14,062,635	23,755,830
2006	21.87	22.40	9,675,499	53.27	14,779,702	24,455,200	23.02	23.57	10,184,270	53.27	14,779,702	24,963,972
2007	22.99	23.54	10,170,998	55.98	15,531,771	25,702,769	24.20	24.78	10,706,313	55.98	15,531,771	26,238,085
2008	24.16	24.74	10,688,617	58.84	16,323,800	27,012,417	25.43	26.04	11,250,477	58.84	16,323,800	27,574,277
2009	25.39	26.00	11,232,781	61.84	17,156,878	28,389,659	26.74	27.38	11,830,034	61.84	17,156,878	28,986,912
2010	26.69	27.33	11,807,913	65.00	18,032,642	29,840,556	28.09	28.77	12,427,287	65.00	18,032,642	30,459,929
2011	28.05	28.73	12,409,590	68.31	18,950,500	31,360,090	29.53	30.24	13,064,357	68.31	18,950,500	32,014,857
2012	29.48	30.19	13,042,236	71.79	19,917,636	32,959,872	31.04	31.79	13,732,395	71.79	19,917,636	33,650,031
2013	30.98	31.73	13,705,851	75.46	20,933,741	34,639,591	32.61	33.40	14,426,978	75.45	20,933,741	35,360,719
2014	28.11	28.79	12,436,135	79.30	22,002,105	34,438,239	34.28	35.11	15,165,802	79.30	22,002,105	37,167,907
2015	29.54	30.25	13,068,781	83.35	23,123,527	36,192,308	36.03	36.90	15,940,019	83.35	23,123,527	39,063,547
2016	31.05	31.80	13,736,819	87.60	24,302,683	38,039,502	37.86	38.77	16,749,629	87.60	24,302,683	41,052,312
2017	32.63	33.42	14,435,827	92.06	25,542,026	39,977,853	39.80	40.76	17,607,904	92.06	25,542,026	43,149,930
2018	34.29	35.12	15,170,227	96.77	26,846,513	42,016,739	41.82	42.83	18,501,571	96.77	26,846,513	45,348,084
2019	36.05	36.92	15,948,867	101.69	28,213,594	44,162,462	43.96	45.02	19,448,328	101.69	28,213,594	47,661,922
2020	37.88	38.79	16,758,477	106.88	29,653,775	46,412,252	46.20	47.31	20,439,325	106.88	29,653,775	50,093,100
2021	39.79	40.75	17,603,480	112.33	31,165,052	48,768,532	48.56	49.73	21,483,412	112.33	31,165,052	52,648,464
2022	41.84	42.85	18,510,419	118.07	32,755,975	51,266,394	51.03	52.26	22,576,164	118.07	32,755,975	55,332,139
2023	43.98	45.04	19,457,176	124.09	34,426,495	53,883,671	53.64	54.93	23,730,853	124.09	34,426,495	58,157,348
Net Present Value (1/1/94)			$84,903,795		$129,843,555	$214,747,349			$89,497,960		$129,843,555	$219,341,515

Contract vs. Avoided Costs 97.91%
NPV of the Discount (1/1/91) $3,455,433

* .85 Capacity Factor and 3.5% Voltage Adjustment

AJH
31891
243 PM

COMPARISON OF CONTRACT COSTS AND AVOIDED COSTS

Royster Phosphates, Inc.
Contract Capacity 28 MW

Year	Capacity Credits $/KW/Mo.	85/83 of 97.5% of Capacity Credits $/KW/Mo.	Contract Capacity Credits $/Year	80% Avoided Fuel $/MWH	Contract Energy * Payment $/Year	Total Contract Payment $/Year	Avoided Capacity Cost $/KW/Mo.	85/83 of Avoided Capacity Cost $/KW/Mo.	Avoided Capacity Cost $/Year	Avoided Energy * Cost $/MWH	Avoided Energy Cost $/Year	Total Avoided Cost $/Year
1993	18.04	18.01	504,359	18.29	328,838	833,197	12.07	12.36	346,104	28.05	504,374	850,478
1994	18.93	18.90	6,350,901	19.10	4,120,834	10,471,735	12.68	12.99	4,363,142	29.32	6,327,071	10,690,214
1995	19.90	19.87	6,676,330	20.07	4,330,915	11,007,245	13.32	13.64	4,583,364	30.82	6,650,092	11,233,456
1996	20.91	20.88	7,015,179	21.09	4,551,855	11,567,034	14.00	14.34	4,817,349	32.39	6,988,845	11,806,195
1997	21.98	21.95	7,374,158	22.17	4,783,996	12,158,154	14.72	15.07	5,065,099	34.04	7,345,915	12,411,013
1998	23.09	23.06	7,746,556	23.30	5,028,015	12,774,571	15.46	15.83	5,319,730	35.78	7,719,990	13,039,720
1999	24.27	24.23	8,142,439	24.49	5,284,422	13,426,861	16.25	16.64	5,591,566	37.60	8,113,865	13,705,431
2000	25.52	25.48	8,561,806	25.74	5,553,895	14,115,701	17.08	17.49	5,877,166	39.52	8,528,389	14,405,556
2001	26.81	26.77	8,994,593	27.05	5,837,113	14,831,707	17.95	18.38	6,176,530	41.54	8,964,410	15,140,940
2002	28.18	28.14	9,454,220	28.43	6,134,925	15,589,145	18.87	19.32	6,493,099	43.66	9,420,831	15,913,930
2003	29.62	29.58	9,937,332	29.88	6,447,840	16,385,171	19.83	20.31	6,823,431	45.88	9,900,446	16,723,878
2004	31.13	31.08	10,443,927	31.40	6,776,536	17,220,463	20.85	21.35	7,174,410	48.23	10,406,262	17,580,671
2005	32.72	32.67	10,977,363	33.01	7,122,201	18,099,564	21.91	22.44	7,539,152	50.69	10,937,605	18,476,757
2006	34.38	34.33	11,534,283	34.69	7,485,515	19,019,798	23.02	23.57	7,921,099	53.27	11,495,323	19,416,422
2007	36.14	36.09	12,124,752	36.46	7,867,155	19,991,907	24.20	24.78	8,327,133	55.98	12,080,267	20,407,399
2008	37.99	37.93	11,683,298	38.32	7,579,440	19,262,738	25.43	26.04	8,021,173	58.84	11,638,265	19,659,438
Net Present Value (12/1/93)			$66,949,567		$43,442,209	$110,391,776			$45,976,156		$66,706,022	$112,682,178

Contract vs. Avoided Costs 97.97%
NPV of the Discount (1/1/91) $1,722,692

* .85 Capacity Factor and 3.5% Voltage Adjustment

AJH
31691
132 PM