

## BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: CFR BIO-GEN'S Petition for a	)	DOCKET NO. 900877-EI
Declaratory Statement regarding the	)	
Methodology to be used in its	)	ORDER NO. 24338
Standard Offer Cogeneration Contracts	)	
with Florida Power Corporation	)	ISSUED: 4/9/91
	)	

The following Commissioners participated in the disposition of this matter:

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

DECLARATORY STATEMENT

BY THE COMMISSION:

By petition filed October 29, 1990, CFR Bio-Gen Corporation (CFR) requested a declaratory statement regarding the method of calculating firm capacity payments under payment Option B of its standard offer cogeneration contracts with Florida Power Corporation (Florida Power). CFR asks the Commission to decide that a mistake was made in the mathematical calculations that accompanied Commission Order No. 18725, the order that approved CFR's and Florida Power's contracts. CFR also asks the Commission to decide that a 1.0 risk factor should be used in the calculation of the capacity payments due under the contracts.

CASE BACKGROUND

For several months, at the direction of the Commission, CFR and Florida Power have been trying to negotiate a settlement of their disagreements over two standard offer cogeneration contracts that the parties executed in 1987 and 1988. (See Docket No. 900383-EQ, Complaint by CFR Bio-Gen Corporation against Florida Power Corporation for alleged violation of standard offer contract, and request for determination of substantial interests). Negotiations are presently deadlocked over Florida Power's anticipated calculation of the firm capacity payments to be made to CFR under payment Option B of those contracts, and CFR has petitioned the Commission for a Declaratory Statement on certain issues that have arisen in the course of those negotiations.

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PSC-RECORDS/REPORTING

ORDER NO. 24338  
DOCKET NO. 900877-EI  
PAGE 2

Florida Power has filed an Answer in Opposition to CFR's Petition. CFR has filed a Motion to Strike Florida Power's Answer on the grounds that Florida Power is not a party to the Declaratory Statement proceeding and has not sought leave to intervene. Florida Power responds that it is the Commission's policy ". . . to entertain the comments of affected parties, without necessarily allowing the parties to intervene."

#### PRELIMINARY MATTERS

CFR has shown a genuine question or doubt regarding the Commission's calculation of firm capacity payments under "Option B" of the cogeneration contracts in question here. As CFR holds the only Option B standard offer cogeneration contracts in the state, it is seeking a resolution of questions or doubts that apply only to CFR and its contracts. Thus, the petition meets the threshold requirements for a declaratory statement prescribed by section 120.565, Florida Statutes, and Commission Rule 25-22.021, Florida Administrative Code. We grant the petition for declaratory statement, but our resolution of the issues presented does not confirm the positions proposed by the petitioner. Our decision is strictly based upon the facts as presented in the petition and limited to the particular circumstances of this case.

We grant CFR's Motion to Strike Florida Power's Answer to the Petition and agree that Florida Power's pleading should not be considered in this declaratory statement proceeding. Florida Power cites Order No. 16581 in Docket No. 860725-EQ, In Re: Petition of Monsanto Company for a Declaratory Statement Concerning the Lease Financing of a Cogeneration Facility as support for its proposition that the Commission should consider Florida Power's answer. In that case, the Commission denied Gulf Power's petition to intervene, but allowed Gulf to file a brief on the issues.

The Commission enjoys considerable discretion in deciding who may participate in a declaratory statement proceeding, and the form that participation will take. Monsanto carries no precedential value here. Florida Power has not petitioned to intervene in this case, and there are no disputed issues of material fact that would require its participation. Our understanding of the issues raised in the petition will not be enhanced by consideration of Florida Power's Answer. Therefore, we will not consider it.

ORDER NO. 24338  
DOCKET NO. 900877-EI  
PAGE 3

### DISCUSSION

In this discussion, we will consider: 1) whether the Commission made mathematical errors in the calculations that accompanied Order No. 18725, and what the effect of those errors was, if any, and; 2) whether a 1.0 risk factor should be used in the calculation of capacity payments under CFR's contracts. Our discussion will also provide an additional explanation of the methodology established in Order No. 18725 as guidance in the actual calculation of the option B capacity payments.

### THE MATHEMATICAL CALCULATIONS

In the early part of 1988, the Commission reviewed and approved the first of the two contracts in question in Order No. 18725, Docket No. 870560-EQ. There the Commission explained the methodology for calculating standard offer cogeneration capacity payments based on the variable value of deferral method known as "Option B". Under the Commission's cogeneration rules in effect at that time, if a qualifying facility selected payment option B, the in-service date and unit designation would remain fixed for the term of the contract. The value of deferral, however, would be recalculated annually, and the payment schedule adjusted to reflect the most recent economic factors affecting the cost of constructing the statewide avoided unit. A sample calculation using the approved methodology was included in Order No. 18725 as an example to follow in making the actual capacity payment calculations. The Commission recognized and stated, however, that the economic parameters affecting the calculation would change over the life of the contract.

The calculations reflected in Order No. 18725 contain one minor error. The Calculation of Construction Stream (Attachment 2, Order No. 18725) is incorrect because a mistake was made in the accumulation of Allowable Funds Used During Construction (AFUDC). Therefore, the in-service cost of the avoided unit is incorrect. Nevertheless, the error is irrelevant, because it occurs in an estimated calculation on an attachment provided solely for illustrative purposes. The error is also irrelevant because the Commission-approved economic parameters that support the calculations in Order No. 18725 are no longer valid. As provided in the Commission rules for Option B contracts, the economic parameters will change over time. Therefore, the parameters used for the calculations in Order No. 18725 are no longer applicable to current calculations of a payment stream under payment Option B.

ORDER NO. 24338  
DOCKET NO. 900877-EI  
PAGE 4

It should also be noted that actual capacity payments to CFR under their two contracts with Florida Power do not commence until April, 1992 and January, 1995, the anticipated in-service dates of their two cogeneration projects. Hence, actual capacity payments to CFR will be based on economic parameters approved by the Commission starting in 1992 and updated thereafter. The only purpose for calculating Option B capacity payments at this time based on present economic conditions is to provide CFR with some estimate of what their future capacity payments from Florida Power might be.

The parameters currently used to calculate the payments under CFR's contracts are given in Attachment 1 of this order. These parameters will be used in the illustration of the methodology for calculating the year-by-year value of deferral provided below.

#### THE RISK FACTOR

CFR's cogeneration contracts recognize a generic 0.8 risk factor to be included in the calculation of the value of deferral. The Commission established the 0.8 risk factor for all standard offer cogeneration contracts in Rule 25-17.083, Florida Administrative Code, adopted in 1983. Under the methodology adopted to calculate the value of deferral, the 0.8 risk factor was designated "C", "a constant risk multiplier equal to 0.8 for the purpose of the utility's standard offer agreement". In its order adopting the rule and the 0.8 risk factor, the Commission stated that the risks associated with the purchase of QF capacity should be "explicitly recognized in the rate of payment. . ." to cogenerators, under all standard offer cogeneration contracts, including Option B contracts. Order No. 12634 elaborates further on the purpose of the risk factor:

Specifically, there is the risk that an insufficient amount of capacity will be available when it is needed to permit the actual avoidance or deferral of additional generating capacity by the utility who has purchased the QF capacity. There is also the risk that after utilities are obligated to purchase QF capacity, it will not be needed during the time it will be available because a utility's generation expansion plan has been deferred for reasons unrelated to cogeneration, e.g., declining load forecasts due to slower growth or improved conservation or the availability of a less expensive source of supply. Moreover, because our rule requires that a QF commit itself for only

ORDER NO. 24338  
DOCKET NO. 900877-EI  
PAGE 5

ten years, while generating capacity owned by a utility is expected to provide service for at least thirty years, there is a risk that there will be an insufficient amount of QF capacity at the end of the initial contract period.

As Order No. 12634 demonstrates, the concerns addressed by the risk factor relate to matters affecting the adequacy and reliability of the electric utility's bulk power supply. They do not relate to the economic parameters affecting the cost of constructing the utility's avoided unit.

In 1989, the Florida Legislature amended section 366.051, Florida Statutes to provide that;

If the cogenerator or small power producer provides adequate security, based on its financial stability, and no costs in excess of full avoided costs are likely to be incurred by the electric utility over the term during which electricity is to be provided, the commission shall authorize the levelization of payments and the elimination of discounts due to risk factors in determining the rates.

In response to the 1989 legislative changes, the Commission repealed Rule 25-17.083, Florida Administrative Code and replaced it with Rule 25-7.0832, Florida Administrative Code. In subsection (5)(a) of the new rule the Commission employed a 1.0 factor in the methodology to calculate the year-by-year value of deferral.

Because of the statutory and regulatory change to the risk factor, CFR believes that 0.8 should no longer be used in the calculation of the variable value of deferral for its option B standard offer contracts. Instead, CFR asks the Commission to decide that 1.0 should be used in the option B calculations. We find, however, that the risk factor is not, and was not intended by the Commission or the Legislature to be, one of the factors that vary in Option B contracts. Rather, as we explained above, the risk factor was a constant number that represented the risk to the utility and the ratepayers posed by reliance on proposed or promised cogenerated power to fulfill future capacity needs. The risk factor did not change with changing economic conditions.

The new 1.0 risk factor incorporated in new Rule 25-17.0832 (5)(a), Florida Administrative Code, was not effective until October of 1990, at least three years after CFR's contracts were

ORDER NO. 24338  
DOCKET NO. 900877-EI  
PAGE 6

executed. Rules, like statutes, are not usually applied retroactively unless they are curative in nature, explicitly note in the title that they will apply retroactively, and do not impair the obligation of contract or vested rights. See 49 Fla. Jur. 2d, Statutes, 136. The new cogeneration rules are not curative rules, they do not give clear notice that they are to be applied retroactively, and they do not apply to affect contractual obligations established three years prior to their adoption. Furthermore, the new statute upon which the new rule is based does not appear to have intended that the 1.0 risk factor should be applied retroactively, either. If it did, it would have said so explicitly. Therefore, the appropriate risk factor to be applied to CFR's contracts is 0.8, as set out in the standard offer contract signed by CFR and Florida Power.

#### HOW TO CALCULATE OPTION B CAPACITY PAYMENTS

As guidance to CFR regarding the method of calculating the variable value of deferral, we have included with this order our calculation of the construction stream applicable to CFR's contracts (Attachment 2).

Under CFR's Option B contracts, the technology type (700 MW coal plant) and in-service date (1992) of the statewide avoided unit do not change. All other economic parameters are adjusted annually to reflect current economic factors. The economic parameters presently applicable to CFR's contract are the same as those of a 500 MW coal unit with an in-service date of 1996. We scaled the base year (overnight) construction cost for the 500 MW unit to arrive at the cost for a 700 MW unit, using an equation developed by the Electric Power Research Institute for conventional pulverized coal plants (TAG-Technical Assessment Guide, Volume 1: Electricity Supply). The currently approved base year (overnight) construction cost for a 500 MW unit is \$1023/KW. Using the EPRI equation, the estimated scaled cost for the 700 MW unit equals \$973/KW. (The reduction in per unit cost is due to economies of scale associated with constructing a larger unit.)

The currently approved overnight construction cost parameter is given in 1988 dollars. The construction spending curve for a coal unit is seven years. To conform the calculation to the 1992 in-service date of CFR's contract, it is necessary to de-escalate the 1988 overnight construction cost (\$973/KW) for two years by the plant escalation rate (5.6%) to achieve an equivalent base year construction cost (\$872/KW) in 1986 dollars. This seven year construction stream allows for escalation and AFUDC to accumulate, resulting in an in-service cost of \$1458/KW (April 1992). This is

ORDER NO. 24338  
DOCKET NO. 900877-EI  
PAGE 7

the value to be used to calculate the capacity payment stream based on current economic conditions.

In its petition for a declaratory statement, CFR provided a re-calculation of the construction stream and avoided cost for its proposed facility using the currently approved economic parameters. CFR incorrectly applied the 1988 overnight construction cost (\$973/KW) as a 1986 cost. We have provided the correct overnight construction cost (\$872/KW in 1988 dollars) in our calculation of the construction stream. Using the resulting corrected in-service cost (\$1458/KW) associated with CFR's unit, we have recalculated the avoided cost payment stream. (Attachment 3)

It is important to emphasize that this calculation is illustrative only, because the capacity payment stream is based on current Commission approved parameters. The cost parameters will change the next time the Commission approves economic parameters for a coal unit. The methodology to be used to calculate the payment stream for CFR's contract, however, will not change, and as Order No. 18725 provides, the calculation should be submitted as part of the April to September filings in the Fuel and Purchased Power Cost Recovery Clause proceedings.

Now therefore, it is

ORDERED by the Florida Public Service Commission that the Petition for a Declaratory Statement is granted. It is further

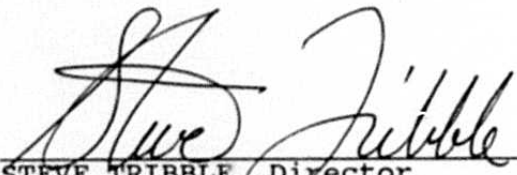
ORDERED that the Motion to Strike Florida Power's Answer in Opposition to the Petition for Declaratory Statement is granted. It is further

ORDERED that the substance of the Declaratory Statement is as set forth in the body of this order. It is further

ORDER NO. 24338  
DOCKET NO. 900877-EI  
PAGE 8

ORDERED that this docket should be closed.

BY DIRECTION of the Florida Public Service Commission, this  
9th day of APRIL, 1991.

  
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STEVE TRIBBLE, Director  
Division of Records and Reporting

(S E A L)

MCB

CHAIRMAN THOMAS M. BEARD, AND COMMISSIONER GERALD L. GUNTER  
DISSENTED FROM THE COMMISSION'S DECISION REGARDING THIS PETITION  
FOR DECLARATORY STATEMENT

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Director, Division of Records and Reporting within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water or sewer utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order,



ORDER NO. 24338  
DOCKET NO. 900877-EI  
PAGE 9

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.

Attachments

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ORDER NO. 24338  
 DOCKET NO. 900877-EI  
 PAGE 10

1996 GENERIC COAL UNIT COST PARAMETERS

a. Type of Fuel	coal
b. Average Annual Heat Rate	9790 Btu/kWh
c. Cost of fuel	Delivered coal at Big Bend #4
d. 1988 Construction Cost \$/k	\$1023
e. Construction Escalation Rate	5.6%
f. In-Service Cost (\$/kW)	\$1689 (1996\$)
g. Incremental Captial Structure	
1. Debt	44%
2. Preferred Stock	9%
3. Common Stock	47%
h. Cost of Capital	
1. Debt	9.8%
2. Preferred Stock	8.8%
3. Common Stock	14.2%
i. Book Life	30 Years
j. AFUDC Rate	11.82%
k. Effective Tax Rates	37.63%
l. Other Taxes	1.5%
m. Discount Rate	10.18%
n. 1996 Fixed O&M Costs (\$/kW/yr)	\$31.41 (\$/kW/yr)
p. 1996 Variable O&M Costs (\$/MWh)	\$6.78 (\$MWh)
q. O&M Escalation Rate	5.4%
r. Value of K	1.572



Docket No. 900877-EI  
 January 21, 1991

UNIT TYPE: 1992 700 MW Coal Unit (Using Parameters From 1996 500 MW Coal Unit)

STANDARD OFFER AVOIDED CAPACITY PAYMENTS (\$/KW/MONTH)

CONTRACT YEAR		CAPITAL COST COMPONENT		O&M COST COMPONENT	TOTAL AVOIDED CAPACITY COST COMPONENT	
FROM	TO	NORMAL PAYMENT STARTING 1/1/92	EARLY PAYMENT OPTION STARTING 1/1/91	EITHER NORMAL OR EARLY PAYMENT OPTION	NORMAL PAYMENT STARTING 1/1/92	EARLY PAYMENT OPTION STARTING 1/1/91
1/91	12/91		7.65			7.65
1/92	12/92	8.82	8.08	3.90	12.72	11.97
1/93	12/93	9.31	8.53	4.11	13.42	12.64
1/94	12/94	9.83	9.01	4.33	14.16	13.34
1/95	12/95	10.39	9.51	4.56	14.95	14.07
1/96	12/96	10.97	10.04	4.81	15.78	14.85
1/97	12/97	11.58	10.60	5.07	16.65	15.67
1/98	12/98	12.23	11.20	5.34	17.57	16.54
1/99	12/99	12.91	11.83	5.63	18.55	17.46
1/00	12/00	13.64	12.49	5.94	19.57	18.42
1/01	12/01	14.40	13.19	6.26	20.66	19.44
1/02	12/02	15.21	13.93	6.60	21.80	20.52
1/03	12/03	16.06	14.71	6.95	23.01	21.66
1/04	12/04	16.96	15.53	7.33	24.29	22.86
1/05	12/05	17.91	16.40	7.72	25.63	24.12
1/06	12/06	18.91	17.32	8.14	27.05	25.46
PRESENT VALUE		90.70	90.70	39.62	130.32	130.32
L=contract years		15	16		15	16
ip*		0.056				
io*		0.054				
r*		0.1018				