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(Decision No. C88-726)

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

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IN RE: THE APPLICATION OF THE	)	
PUBLIC SERVICE COMPANY OF COLORADO	)	APPLICATION NO. 38771
REGARDING COGENERATION AND SMALL	)	
POWER PRODUCTION PROJECTS	)	COMMISSION INITIAL
(QUALIFYING FACILITIES OR QFS).	)	DECISION AND ORDER
	)	

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June 9, 1988  
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Appearances:

Kenneth V. Reif, Esq., and Mark A. Davidson,  
Esq., for Public Service Company of Colorado;

Tucker K. Trautman, Esq., for Mitex, Inc., and  
Metropolitan Denver Sewage Disposal District  
No. 1;

Paula M. Connelly, Esq., for Thermo Carbonic,  
Inc.;

Joel W. Cantrick, Esq., for Cogen Technology,  
Inc.;

Oscar Goldberg, Esq., for the City and County  
of Denver by and through the Denver Board of  
Water Commissioners;

Sue E. Weiske, Esq., and Anthony Marquez, Esq.,  
for the Office of Consumer Counsel;

John R. McNeil, Esq., and James H. Delman, Esq.,  
for Colorado-Ute Electric Association;

Richard L. Fanyo, Esq., for CF&I Steel;

Zach C. Miller, Esq., for Northern Colorado  
Water Conservancy District;

Robert Bach, Esq., for Cogeneration Technology  
& Development Co.;

Karl F. Kumli, III, Esq., for the County of  
Arapahoe;

Nicholas G. Muller, Esq., for Twombly Partners,  
Inc.;

Peter J. Stapp, Esq., Assistant Attorney General,  
for the Staff of the Commission;

Michael R. Homyak, Esq., for the Colorado Public  
Utilities Commission.

#### STATEMENT AND FINDINGS

##### BY THE COMMISSION:

##### MORATORIUM

Public Service Company of Colorado (Public Service) filed Application No. 38680 on November 4, 1987, requesting that it be relieved of the obligation to execute additional independent power production facility (IPPF) contracts and that it be required to file, within 60 days of the effective date of the requested moratorium, a comprehensive plan to address the problems alleged in Application No. 38680. Public Service mailed copies of the application to the individuals shown in an affidavit attached to the application. The Colorado ~~Public~~ Utilities Commission (Commission), on its own motion takes notice of Application No. 38680.

The Commission issued Decision No. C87-1555 on November 10, 1987, giving notice of the filing of Application No. 38680 and setting it for hearing on November 23, 1987, in Denver, Colorado. Numerous parties intervened, and hearing was held as scheduled.

On December 16, 1987, the Commission issued Decision No. C87-1690 in Application No. 38680, establishing a moratorium to relieve Public Service from the obligation of executing additional IPPF contracts. The Commission also ordered that the moratorium shall not apply to any Public Service category 1, 2, or 3 facility for which the developer has contacted Public Service before November 4, 1987. Public Service was further ordered by the Commission to continue negotiating in good faith with the developer of any category 4 facility where the developer had contacted Public Service before November 4, 1987, and that any contract executed during the moratorium will be subject to particular Commission scrutiny before approval and possible exemption from the moratorium, before it is effective.

##### PUBLIC SERVICE'S PLAN AND COMMISSION RULES

In Decision No. C87-1690, the Commission ordered that: (1) Public Service file, within ten days of the effective date of Decision No. C87-1690, a check list for use by IPPF project proponents that had contacted it before November 4, 1987, giving necessary documents, steps to be taken, check points, and all other requirements for use in connection with negotiating IPPF contracts; 2) Public Service's proposed comprehensive plan be filed on or before January 15, 1988; and 3) Public

Service negotiate fairly, expeditiously and in good faith. The moratorium was ordered continued until February 18, 1988, and the Commission stated that it would be continued to coincide with the processing of the comprehensive filing, if it appeared that the comprehensive application would be promptly completed and that a continuation of the moratorium would be necessary. The Commission established by Decision No. C87-1690 a prehearing conference in Application No. 38680 and in the comprehensive application (Application No. 38771) for February 18, 1988, where the type of proceeding, a time schedule, and a continuance of the moratorium in Application No. 38680 would be considered. Applications for rehearing, reargument, or reconsideration of Decision No. C87-1690 were timely filed and were denied on February 10, 1988, in Decision No. C88-140.

As ordered in Decision No. C87-1690, Public Service filed its comprehensive Application No. 38771 on January 15, 1988. Public Service proposed a procedure to establish the avoided cost for qualifying facilities (QFs) by a biennial bidding procedure. Public Service requested that the Commission approve this plan, and that the bidding procedure would replace its current IPPF tariffs, which established its avoided cost to be paid to QFs. On January 29, 1988, Staff of the Commission (Staff) filed a petition for the Commission to enter into a rulemaking proceeding. On February 11, 1988, Westmoreland Energy, Inc., filed a response to Staff's petition for the Commission to enter into rulemaking. On February 11, 1988, Public Service also filed a response to Staff's petition for Commission to enter into rulemaking. Staff also filed a proposed change in Public Service's procedural schedule on January 25, 1988.

The following parties filed petitions to intervene or an entry of appearance and notice of intervention as a matter of right:

<u>INTERVENTIONS FILED</u>	<u>DATE FILED</u>
Colorado Interstate Gas Company	1-25-88
Staff of the Public Utilities Commission	1-25-88
Thermo Carbonic, Inc.	1-27-88
Colorado Office of Consumer Counsel	1-27-88
CF&I Steel Corporation	1-29-88
City and County of Denver by and through its Board of Water Commissioners	2-2-88
Colorado-Ute Electric Association, Inc.	2-3-88
Mitex, Inc. and the Uncompahgre Valley Water Users Association	2-4-88
Northern Colorado Water Conservancy District	2-5-88
Metropolitan Denver Sewage Disposal District No. 1	2-5-88
Waste Management of Colorado, Inc.	2-5-88
Westmoreland Energy, Inc.	2-8-88
Sunlaw Energy Corporation	2-8-88
Bonneville Pacific Corporation	2-8-88
County of Arapahoe	2-8-88
Cogen Technology, Inc.	2-8-88
Twombly Partners, Inc.	4-12-88

As scheduled, a prehearing conference was held on February 18, 1988. The issues considered were whether the application should be processed as a rulemaking or as an adjudicative proceeding, and a schedule for the processing of the application. Also considered was whether a schedule for other related proceedings, such as rulemaking as requested by Staff, should be established.

On February 22, 1988, the Commission issued Decision No. C88-198, which recognized that numerous petitions to intervene had been filed in Application No. 38771, found that present Commission rules provide authority to proceed on Application No. 38771, established a separate rulemaking proceeding to consider the adoption of a rule similar to that suggested by Staff, and adopted a temporary rule which authorized a bidding procedure to establish Public Service's avoided cost. The Commission waived any part of Commission OF Rule 3.00 in conflict with Public Service's application and adopted a schedule for the processing of Application No. 38771. Hearing in Application No. 38771 was scheduled for April 18, 1988, through April 22, 1988.

On March 8, 1988, Thermo Carbonic, Inc. (Thermo), filed a motion for a 60-day continuance of the procedural schedule. This motion was denied on March 9, 1988, in Decision No. C88-272-1. On March 10, 1988, Thermo filed a motion for reconsideration of Decision No. C88-272-1. Responses or joinders in Thermo's motion for reconsideration were filed by Cogen Technology, Inc. (CTI), on March 11, 1988; by Westmoreland Energy, Inc., on March 11, 1988; by the Colorado Office of Consumer Counsel (OCC), on March 14, 1988; and by Energy Ingenuity Company (EIC), on March 15, 1988. The Commission denied Thermo's motion for reconsideration on March 21, 1988, in Decision No. C88-339.

On March 31, 1988, the (OCC) filed a motion requesting prehearing conference. The Commission issued Decision No. C88-404 on April 6, 1988, granting this motion for prehearing conference. The Commission established April 12, 1988, at 9 a.m., in Denver, Colorado, for the prehearing conference, which was heard as scheduled. A prehearing conference order, Decision No. R88-446-1, was issued on April 13, 1988, and amended prehearing conference order No. R88-446-1-Amended was issued on April 15, 1988.

#### PLAN ELEMENTS

In summary, Public Service proposed a bidding procedure allowing OFs to serve up to 20 percent of Public Service's total firm load. Public Service further proposed that it would serve the balance of load, and provide reserve capacity from resources it owns or contractually controls. Public Service proposed five electric supply groups (ESG). ESG 1 is unscheduled energy only, ESG 2 is scheduled energy only, ESG 3 is unscheduled capacity and energy, ESG 4 is scheduled capacity and energy, and ESG 5 is economic dispatch of capacity and energy. The percentage of the 20 percent of total firm load suggested by Public

Service to be provided by ESG 3 is 7 percent, with ESG 4 providing 28 percent, and ESG 5 providing 65 percent. Public Service suggested that QFs will furnish bids beginning in 1989 for specific megawatts (MW) amounts in each two-year interval for years 1992-1997. The next bidding was proposed to be in 1990 for years 1998-1999. Under Public Service's plan, bids would be evaluated by Public Service using the following criteria with maximum points which may be earned by the bidding QFs:

<u>FACTOR</u>	<u>MAXIMUM POINTS</u>
Operability*	20
Facility Characteristics	15
Cost	25
Fuel	20
Contract Term	15
Project Management and Finance	5
	<u>100</u>

Public Service proposed to issue a request for proposals (RFP) showing the precise amounts of capacity needed and giving all specifics necessary for bid submission. RFPs would be issued in advance of each two-year billing cycle. The price to be paid to any successfully bidding QF would be its bid price for the year the QF bids to be in service. However, the price to be paid would not exceed the maximum payment level for each ESG. The maximum payment level for each ESG group is suggested by Public Service to be:

- ESG 1      Generation will result in a reduction in net energy billed to that supplier.
- ESG 2      Mutually negotiated seasonal or spot price.
- ESG 3      Inland Power Pool operating reserve deficiency charge and average system coal-fueled production cost.
- ESG 4      The lesser of the Rocky Mountain regional power market bid price for long-term, firm, unit-contingent capacity and energy or the cost for economic dispatch capacity and energy.
- ESG 5      The cost, for a major new unit going in-service during the bid year, constructed by Public Service.

In the comprehensive plan, Public Service stated that load forecasts for the coming ten years would become the basis for the supply plan. Public Service further stated that bids would be solicited every



two years and that contracts will be negotiated for additions required in years one through ten. Public Service stated that its planning horizon for capacity would be ten years. This would provide QFs adequate time to understand Public Service's estimated future requirements and give them sufficient time to commit to plans to meet these supply requirements. Public Service proposed that those QFs who have filed a satisfactorily completed electric generation project application, together with an application deposit of \$10 per net kilowatt (KW) output would bid for all or a portion of the power supply requirements. Successful bidders would have 30 days following notice of their selection to submit supporting documentation. If the documentation were not received, that bidder would be dropped, and the next highest scoring bidder would be moved up. Any bidder attempting to change its project from that described in the bid proposal would, be dropped, if Public Service determines that action to be detrimental, and the next highest unsuccessful bidder would be selected.

Public Service also suggested a security deposit to ensure that any overpayment of capacity could be recovered. Security deposits would be in the form of letters of credit, security bonds, escrow accounts, or insurance annuities. Also, all needed interconnection and system upgrade costs on the Public Service system would be the responsibility of the QF and an executed, off-system, wheeling contract would be required by Public Service prior to execution of a power purchase agreement. Successful bidders, upon compliance with all requirements, would be offered a power purchase agreement which would be submitted to the Commission for review. The bidding plan is attached as Exhibit A to Application No. 38771 and was admitted into evidence at the hearing as Exhibit No. 1.

#### HEARING ON THE PLAN

As scheduled, the matter came on for hearing on April 18, 1988, and concluded on April 22, 1988. The following intervenors appeared and participated in the proceeding: Public Service, Staff, OCC, Colorado-Ute, Thermo, CTI, the Denver Water Board (DWB), the Northern Colorado Water Conservancy District, and Twombly Partners Inc. (Twombly). Twombly filed an untimely petition to intervene which was granted on April 19, 1988.

Testimony was presented by William J. Martin, J. D. Heckendorn, James Monroe III, Harvey Salgo, Janice Hamrin, William E. Coleman, William Bates, John Diebel, Girts Krumins, Curtis R. Jensen, Gregory L. Twombly, Gary Schmitz, Saeed Barhaghi, Vernon J. Twombly, Carl E. Hunt, James Ranniger, and Warren L. Wendling. The following exhibits were marked and were admitted into evidence: A, 1 through 8; B, 9 through 11; C, 12 and 13; D; E; F, 14 and 15; G; H; I; J, 17; K, 18, 19, and 20; L, 21; M; N; O; P; Q; R, 23 through 41; S, 42, 43, and 44. Administrative notice was taken of Exhibit No. 16. At the conclusion of the hearing, it was agreed that opening statements of position would be

filed by May 4, 1988, and reply statements of position would be filed by May 11, 1988. Opening statements of position were timely filed by: Arapahoe County, OCC, the Denver Water Board, Colorado-Ute, Thermo, Twombly, Public Service, CTI, and Staff. Reply statements of position were timely filed by Public Service, Thermo, and OCC.

#### COMMISSION FINDINGS

The Commission finds from the record of this proceeding that Public Service's application for a bidding procedure to establish its avoided QF costs should be granted with certain modifications. The testimony and evidence presented in this proceeding reveals that a bidding procedure is necessary to ensure both the reliability and adequacy of Public Service's system and that the customers of Public Service will not over-or under-pay for QF power. Moreover, a bidding procedure will enable Public Service to obtain the lowest-priced QF power available which will enure to the benefit of its customers.

The bid procedure proposed by Public Service for QF power is a good beginning step. The Commission finds that Public Service should consider the bidding procedures for utility supplied power as well as demand-side measures in the future. The Commission's goal is a thorough consideration of all source bidding.

Extensive testimony and evidence was submitted in this proceeding, which raised the issues listed below. The Commission will consider each of these issues and to the extent that the plan proposed by Public Service in this proceeding varies from the Commission's findings on each issue, Public Service will be ordered to modify the plan, and to file new QF tariffs which conform to the plan as modified by this decision.

#### ISSUES:

- The 20 percent QF limit.
- The application fee.
- The security deposit.
- Third party oversight of the bidding process.
- Non-price factors.
- Standard contracts.
- ES6 groups.
- Transmission system upgrade.
- Type of bidding system.

- Milestones.
- Discriminatory QF charges.
- Fort St. Vrain.
- Municipal purchase contracts.
- Preferences for municipalities and fuel type.
- Leadtime.
- Points for 15-year contracts.
- ESG 5 cap or rebid.
- Prior wheeling contract.
- Direct load control and customer load control.
- Banking contract.
- Reopeners.
- Revealing caps
- Demand side bidding.
- All source bidding.

1. The 20 percent QF limit.

Public Service states in its plan (Exhibit No. 1) at page vii:

Purchases from Qualifying Facilities would be limited, in aggregate, to 20% of the total system firm net peak load. Numerically, this amount is about equal to the projected operating reserve level of the Company (about 20%) beginning in 1994 when QFs are expected to be a large portion of total generation and regional reserves, upon which PSC has relied, are forecasted to decline.

Generally, the intervenors contend that the proposed 20 percent limit should either be rejected or should be substantially increased. Several intervenors contend that the 20 percent limit is contrary to the requirements of Public Utility Regulatory Policy Act (PURPA) and the Federal Energy Regulatory Commission (FERC) QF Rules. In response, Public Service presented evidence that QFs do not have an established track record and the 20 percent limit is, therefore, a prudent first step.



The Commission finds that Public Service's proposed limit of 20 percent of total-system, firm net peak-load is a reasonable starting point. At this time, considering Public Service's excess reserves of 17 percent, to exceed 20 percent would place potential risk on ratepayers. However, the Commission views this limit as a target, rather than as a limit. The Commission expects that Public Service will monitor this situation and will make future recommendations for possible revision, as circumstances warrant. It is the Commission's view that the 20 percent limit may be increased, removed, or lowered, depending upon Public Service's future experience with qualifying facilities, its reserve margin, availability of power in the region, and other factors.

## 2. The Application Fee.

Public Service proposes an application fee in the amount of \$10 per net KW output, which must accompany a satisfactorily completed application. Under Public Service's proposal, both the application fee and a completed application are necessary for a QF to be eligible to bid. Public Service states that the application fee will encourage only serious bidders, and will be refunded to unsuccessful bidders upon announcement of the successful bid. Public Service also proposes that the application fee will be refunded to successful bidders in equal amounts over the first five years of project operation.

In testimony presented on this issue, the intervenors opposed the amount of the application fee and the proposed refund procedure. CTI urged a deposit in the range of \$25,000 to \$50,000. Other testimony was presented that the application deposit should be refunded for successful bidders at the date of commercial operation, or with interest at the date of contract award.

The Commission finds that the function of an application fee is to ensure that only serious bids are made, and that an application fee in the amount of \$10,000 will serve this purpose. This deposit must accompany a satisfactorily completed electric-generation project application and immediately will be placed into an interest-bearing account. For both successful and unsuccessful bidders, the application fee will be refunded, with interest, at the date of contract award.

## 3. The Security Deposit.

Public Service states at paragraph II G. Security Provisions., pages II-6 through II-7 of the plan:

Because QFs have no statutory obligation to serve, they will be subject to security deposits. The purpose of such deposit is to insure that to the extent QFs are overpaid (in the event of project failure for example), the overpayment can be recovered. Such overpayment could occur if long term

capacity rates had been paid for what actually became a short-term facility. In addition, should the QF cease to operate for any reason, PSC will have the right to operate the plant to supply capacity and energy if the plant is still in operable condition.

At the expiration of a non-defaulted purchase contract, security deposits in the forms of Letters of Credit or Security Bonds will be cancelled. Cash in the form of Escrow Accounts or Insurance Annuities revert to the project owners.

Thermo Carbonic presented testimony that there is no risk of QF overpayment, consequently there is no need for a security deposit. Other evidence was presented that the proposed security deposit would render projects financially unfeasible, that the security deposit would not be related to replacement or avoided cost, or would be discriminatory since not charged to other utilities. Testimony was presented by Staff that the bid plan adopted in Idaho uses risk reduction factors, coupled with a "K" factor, and that these risk reduction factors reduce the amount of needed security deposit.

The Commission finds, from the evidence presented in this proceeding, that a security deposit should be required of QFs, to protect ratepayers from the risk of Public Service having to obtain more costly replacement power in the event of QF failure before contract completion. The Commission finds that the risk for which the security deposit represents insurance is the possibility of project failure or default before contract completion, and the need for more costly replacement power in that event. This risk is properly measured by the difference between the amount bid by the successful bidder and the cap amount.

The Commission also finds that Staff's proposed risk-reduction factors are a reasonable approach to calculating the necessary security. Staff's approach, refined to measure risk reduction features of cogeneration proposals in Public Service's RFPs, should be applied to reduce the amount of the security deposit needed. However, the Commission is not persuaded that the "K" factor proposed by Staff represents a risk reduction factor. Accordingly, the Commission will not require Public Service to modify its plan to use the "K" factor.

Testimony was presented by Public Service and by the intervenors that the category 4 QFs now negotiating with Public Service are unable to reach contracts primarily because of the type and amount of security deposit required by Public Service. The Commission finds that the above risk measurement and risk reduction factors, and the below mentioned forms of security deposit shall be applied to the category 4 QFs now negotiating with Public Service.

The Commission will require that Public Service specify the security arrangements in each RFP, giving attention to all the elements

described here. The Commission also anticipates that security arrangements may vary for different types of power that are subject to the bid process. In other words, some technologies may be less risky than others and thus different values for risk-reduction factors will be computed.

The security deposit will be due 30 days after a successful bidder signs a power purchase contract with Public Service. In the event a QF fails to post the required security deposit timely, that bidder will be dropped from the award list, and Public Service may award a contract to the next unsuccessful bidder. The form of the security deposit may be by letter of credit, security bond, performance bond, escrow account, insurance annuity, or other like arrangement.

#### 4. Third Party Oversight of Bidding Process.

Public Service proposed that it administer all aspects of the plan. Other parties to this proceeding presented testimony and evidence that an independent entity, such as an accounting firm, should administer the program. Other parties urged that the Commission should administer the bid process. The Commission finds that the evaluation of the bids should be within the control and conduct of an independent entity, and that this entity should be selected by Public Service, subject to Commission approval. The cost of this independent entity is not a QF cost and shall be borne by the company. This independent entity should be free of any substantial contact or affiliation with Public Service, or with the Commission, which would affect its independence in evaluating bid proposals. ATSO, engineering, financial, economic, and energy-related expertise is essential. Public Service shall state the criteria used and name the selected entity in its RFP. The Commission will approve or disapprove Public Service's selection in its order approving or disapproving Public Service's RFP.

#### 5. Forecasting and Planning.

The record of this proceeding reveals that forecasting and planning is the essential, first element in the bidding process, because it defines amounts and types of demand, and lists available capacity. Forecasting and planning also determines Public Service's own capacity to generate power and its need to purchase additional capacity, which in turn determines the access of QFs to the bidding process. If Public Service forecasts that no capacity will be required at any given time, QFs may then not have access to the bidding process. In its proposal Public Service states:

The basis for power supply decisions will be year by year forecasts of probable customer requests for electric services and the associated power system requirements for meeting those requests.

Testimony was received in this proceeding suggesting that Public Service forecasts should be conducted either under Commission supervision, or subject to Commission approval. The Commission finds that planning and forecasting are management functions of Public Service, but that the Company should continue its open policy of seeking comment from all sources early in its annual forecasting and planning process. After Public Service issues its annual forecast, it may then appropriately determine demand, available resources and capacity which is needed, and which may be filled by QFs. Upon completion of forecasting and planning Public Service shall then initiate the RFP process.

The Commission further finds that it will not order Public Service to file an application with the Commission seeking approval of its annual forecast, nor at this time does the Commission envision entering an order approving or disapproving the forecast. However, should any party believe that Public Service's forecasting process is fundamentally flawed, that party may file a complaint with the Commission seeking appropriate relief.

#### 6. The RFP Process.

Public Service presented extensive testimony on its proposed RFP process. Public Service suggested that once its forecast indicates that capacity is needed, it will then issue an RFP requesting QF bids for this needed capacity. Public Service further suggested that the RFP will provide adequate information for QF bidders to prepare appropriate responses to the RFP. Public Service finally proposed that its RFPs shall be prepared, evaluated, ranked, and awarded by Public Service.

As noted above, other parties to this proceeding contend that the Commission or an independent entity should administer all aspects of the RFP process. The Commission finds that the evaluation and ranking of bids shall be conducted by an independent entity named by Public Service in its RFP, subject to Commission approval. After the Commission finally approves an RFP, the formal bid process may begin.

The Commission finds that Public Service shall file a separate application seeking Commission approval of each RFP. The Commission will give notice of this filing and will provide opportunity for intervention and comments by the parties. Should interventions be filed to the application, the Commission may set the matter for hearing, and at its conclusion will approve or disapprove the RFP.

#### 7. Price and Non-price Factors.

Public Service provided evidence that both price and non-price factors must be used to determine the award of any bids. Staff and other intervenors provided testimony that price and operability should be the sole factors considered. The Commission finds that Public Service's proposed non-price factors are appropriate as beginning criteria, and



that non-price factors do contribute to price determination. For these reasons, the non-price factors in the plan shall remain as criteria for now. The Commission also finds that non-price factors may vary, depending upon the technology, location, fuel types, quantity, and quality of capacity and energy placed for bid in each RFP. The Public Service should remain flexible in this regard and shall justify its non-price factors adequately in each RFP.

#### 8. Standard Contracts.

The record demonstrates that standard contracts must be developed promptly. An extensive, time-consuming, contract negotiation process has expended the resources of both the QFs and Public Service. One intervenor suggested that QFs should have the option to reject any standard contract developed, and negotiate an entirely new agreement. The Commission will reject this contention, and finds that standard contracts are urgently needed. Accordingly, Public Service will be required to propose standard contracts in this proceeding within 30 days of the date of this decision. All parties may comment on these standard contracts for an additional 30 days. At the conclusion of this time period, the Commission will approve or disapprove these standard contracts by separate order. The Commission suggests, as a minimum, that the standard contracts proposed by Public Service shall contain dates when application and security fees are due, the dates and ways that these fees will be reduced and refunded, milestones, timetables for necessary events before commercial operation date, and that possible resolution of contract differences may be accomplished by use of the Uniform Arbitration Act of 1975, § 13-22-201, et seq., C.R.S.

#### 9. Energy Supply Groups.

As addressed above under Plan Elements (see page 4), five QF ESG are proposed by Public Service in this proceeding, which will serve up to 20 percent of Public Service's total firm load. Some intervenors testified that ESG 3, ESG 4, and ESG 5 should not be limited in either amount or size. Other intervenors urged that the percentages for each ESG category should be increased, and that Public Service's method of deriving the various ESG group limits is flawed.

The Commission finds that the percentages proposed by Public Service for ESG 3, ESG 4, and ESG 5 are reasonable as initial targets, and that the size limitations on these ESG groups are appropriate and reasonable because size directly affects reliability, ability to schedule and dispatchability of QFs. However, the Commission finds that these percentages should be monitored by a report issued annually by Public Service at the time of the Public Service's annual demand forecast so that these percentages may be subject to future modification, as QF experience is gained in each ESG group.



Public Service addressed maximum payment levels or caps for each ESG group under Plan Elements (see page 5). It was contended by various intervenors that these caps were derived improperly, that there should be no cap on any ESG group, and that renewable resources should receive preference. From the evidence presented, the Commission finds that the caps for each ESG group are appropriate, and should be approved as a beginning step. However, as with other parts of the plan, these caps will be subject to future Commission review for possible revision. The Commission also finds that these price caps should not be revealed until after the deadline for the filing of sealed bids expires. The Commission anticipates that the filing of sealed bids, the opening of these bids, and the revelation of price caps will be a contemporaneous process. The Commission makes this finding to ensure that cap prices are set before the bids are opened, and that the award of bids will not be based on price caps which are known to the bidders in advance of bid submission. The Commission also finds that Public Service, in its RFPs, or other parties, by other means, may propose different processes as the system develops, subject to Commission approval.

#### 10. Transmission System Upgrades and Ownership.

Various intervenors testified that Public Service assesses improper charges to QFs, in addition to proper interconnection costs. The allegations include Public Service's proposals that QFs pay for all transmission system upgrades "necessary within its system" to move QF power to the Denver load, and that QFs contribute all interconnection facilities and transmission system improvements to Public Service, which gives rise to taxable income to Public Service. Finally, it was testified that Public Service proposed to require QFs to pay the Public Service's income tax liability incurred as a consequence of the contribution of interconnection facilities and transmission system improvements.

CTI presented testimony that a QF should only be required to pay a proportional share of upgrades. CTI states that the costs should be shared in proportion to the use. Thermo also presented testimony that the alleged improper additional charges violate Commission QF Rule 1.20B and discriminate against QFs since these charges are not assessed against other utilities selling power to Public Service.

Public Service presented testimony that QFs are required to pay the cost of all transmission system upgrades necessitated by the presence of QFs on its system, and other interconnection costs, because QFs may locate wherever they choose on the system. Moreover, Public Service stated that power purchased from other utilities is subject to careful system location, and if these purchases require upgrade, Public Service receives appropriate price concessions. Commission QF Rule 1.20B states:

"Interconnection costs" means the reasonable costs of connection, switching, metering, transmission, distribution,

safety provisions, and administrative costs incurred by the electric utility directly caused by the installation and maintenance of the physical facilities necessary to permit interconnected operations with a qualifying facility, including the cost of installing equipment elsewhere on the utility's system necessitated by the interconnection, to the extent such costs are in excess of the corresponding costs which the electric utility would have incurred if it had not engaged in interconnected operations, but, instead, generated an equivalent amount of electric energy itself or purchased an equivalent amount of electric energy or capacity from other sources. Interconnection costs do not include any costs included in the calculation of avoided costs. (Emphasis added.)

The Commission finds that it is proper under Rule 1.208 for Public Service to require QFs to pay for all internal transmission system upgrades needed to move QF power to the Denver load, because QFs may locate wherever they choose within the State and without. Thus, transmission upgrades, if needed, and the contribution of interconnection facilities may be necessitated solely by the location of the QF on the system. The Commission further finds that Public Service does not discriminate against QFs in assessing transmission upgrade costs or in requiring the contribution of interconnection facilities. The testimony presented by Public Service persuades the Commission that Public Service appropriately treats power purchases from other utilities in a rational and well founded manner based on prior experience with these utilities.

Various intervenors presented testimony that interconnection and transmission facilities should either be owned by the QF, or jointly owned by the QF and Public Service. The Commission finds that Public Service's system requires the stability, dependability, and control gained by company ownership of its system. We will therefore order no change in this aspect of the plan.

#### 11. Bidding System.

Much testimony was presented as to the specific type of bidding procedure which should be used. The Commission finds that a discriminatory auction as proposed by Public Service should be used for the first bidding scheduled for 1989. However, as experience is gained, other types of auctions may be used, if appropriate for changed circumstances.

Other parties contend that the Commission does not have authority under FERC rules to adopt a bidding program or that a bidding program should not be implemented. The Commission finds that the record of this proceeding contains substantial evidence which shows that a

bidding procedure should be adopted and that such a system is not prohibited by FERC Rules, Commission QF Rules, or by PURPA. Staff suggested that milestones should be adopted and if a QF fails to meet a milestone, this facility should be dropped from the winning bid list. The Commission finds that milestones, if appropriate, should be included in the RFPs to be issued by Public Service, or in the standard contracts which will be later proposed.

## 12. Discriminatory QF Charges.

In addition to the criticism of Public Service's proposals for charges on transmission system upgrades (see paragraph 10 above), other testimony was presented by the intervenors that charges proposed by Public Service to be paid by QFs are not assessed against utilities selling power to Public Service. These parties contend that these charges result in discrimination against QFs. The additional discriminatory QF charges are alleged to be:

Security for the refund obligation.

Public Service's costs of negotiating contracts or conducting engineering reviews.

QF payment of Public Service's tax liability from contributed QF interconnection facilities and transmission system improvements.

Public Service presented testimony that other utilities are not charged a security deposit because they have an established track record of reliability, have known financial strength, and maintain a broad range of generating resources. Public Service also testified that the security requirements for QFs may be eliminated or reduced at the time that QFs demonstrate their reliability. Public Service further testified that it does not charge negotiation costs to other utilities, because Public Service buys and sells to other utilities, and negotiation costs between these entities even themselves out over time. As to the application fee, Public Service states this is required to ensure serious bids. This has never been a problem in Public Service's transactions with other utilities. For these reasons, Public Service concludes that none of these charges is discriminatory to QFs. Public Service also states that all of the charges, other than the application and security deposits, have been in place for a substantial time.

The Commission finds that these charges to QFs are not discriminatory, and that they bear a rational relationship to costs incurred for QFs on Public Service's system. Accordingly, the charges required of QFs are found to be appropriate, and comply with Commission QF rules.

### 13. Fort St. Vrain Nuclear Generating Station.

Testimony was presented as to the Fort St. Vrain Nuclear Generating Station (FSV). Public Service states that it is entitled to sell all power produced by a repowered FSV to its customers at 48 mills per KW up to 330 MW at 100 percent operating capacity. Staff contends that FSV should be removed from the resource plan because the prior settlement agreement relative to FSV provided that this plant would not be in service after 1990. Staff and OCC also state that the FSV settlement agreement refers to this plant as a nuclear generating station and, thus, the rate of 48 mills per KW will not apply to power from that site which is not nuclear-generated.

Other parties to this proceeding urge that FSV, if repowered, should be considered as the marginal unit for purposes of establishing avoided costs. Several parties contend that all issues concerning FSV should not be considered in this proceeding, and Staff of the Commission has filed a separate application seeking a declaratory judgment on all FSV issues raised in this proceeding. The Commission finds that the rate issues pertaining to FSV raised in this proceeding should be deferred and considered in the pending declaratory judgment proceeding. The Commission also finds that FSV will be included in the plan to the extent it will be generating as a nuclear-powered station. Other generation from FSV is speculative at this time. As Public Service makes its plans for FSV known in its annual planning process, the issue of repowered operation will undoubtedly reappear.

### 14. Municipal Purchase Contracts.

The DWB presented testimony that Public Service agreed, by its existing contracts with the DWB, that it would negotiate long-term contracts to purchase power made available for sale by Denver. DWB stated that any Commission requirement which would implement a bidding procedure in lieu of the contractual requirement for the negotiation of long-term contracts would be unconstitutional. The DWB also contended that existing contracts should not be affected by a bidding procedure, and that Denver is legally entitled to negotiate future contracts with Public Service at existing avoided-cost rates.

Public Service presented testimony that Denver's franchise does not give Denver absolute rights to negotiate long-term contracts with Public Service. Public Service further stated that existing contracts will not be disturbed by the adoption of a bidding procedure. However, Public Service stated that, as to new long-term contracts, the DWB will have the option of proceeding as a QF, subject to whatever system is then in place, or to contract as an independent power producer with Public Service. Staff contended that Denver is not exempt from Commission jurisdiction as to its QFs.



The Commission finds that existing long-term contracts between the DWB and Public Service will not be affected by this proceeding. However, although the City and County of Denver is a home rule municipality, its sales to jurisdictional utilities from either its present or future municipal electric facilities are subject to Commission jurisdiction to the extent that Denver seeks to either be a QF, or contracts with Public Service as an independent power producer. The Commission finds that Denver's contentions do not warrant any modification to Public Service's plan.

15. Miscellaneous Issues.

a. The DWB presented argument that municipalities should be given a preference in the bidding procedure. Other parties adduced evidence that a preference should be granted for facilities using renewable fuels. The Commission finds that there is no municipal or renewable fuel preference in § 210 of PURPA, nor in the rules of this Commission or in the FERC QF Rules. Accordingly, the Commission will not require Public Service to modify its plan in these regards. However, Public Service may want to consider municipal power in its RFP as a non-price factor in terms of the management stability and economic development features of particular projects; renewable fuels should also be considered as a non-price factor.

b. Many of the intervenors urged that the eight- to ten-year lead-time proposed by Public Service is too long and suggested lead-times of three to six years. The Commission finds that the appropriate lead-time for projects will vary from year to year. The Commission finds that lead times should be reconsidered on an annual basis, at the time that Public Service publishes its load and resources plan, and that lead-time can also vary depending upon the type, quantity, and quality of power needed. Accordingly, the Commission concludes that a four- to six-year lead-time now appears to be more reasonable, but should be considered by Public Service at the time that it issues its various RFPs. Thus, by January 1, 1989, Public Service should have an RFP in place for power to be on line in 1992.

c. Testimony by several intervenors suggested that Public Service should award points for a proposed contract with a term of fewer than 15 years. Staff testified that plant may be valuable if it provides capacity for five years or more, and recommends the use of a graduated scale. Staff testimony also indicated that long-term contracts are not always desirable, and that contracts of fewer than 15 years may have benefit. The Commission finds that a contract of fewer than 15 years may have value and should be awarded points in the bidding process. The Commission will require Public Service to modify its plan by the use of a graduated scale starting from five years up to 30 years.

d. One Intervenor requested that the Commission order the same level of dispatchability in the ES6 5 category that Public Service



maintains for its own facilities. However, testimony presented by Public Service established that Public Service does not seek to require a greater level of dispatchability from QFs to qualify for ESG 5 than is presently available from its own facilities. Accordingly, the Commission will not require that Public Service modify its plan in this regard.

e. Public Service proposed that all potential QFs must have executed wheeling contracts before it will sign a power-purchase agreement. Numerous parties presented evidence and testimony that this requirement is unnecessary and unreasonable. The Commission is persuaded by the testimony and evidence presented by the intervenors, and finds that this requirement is unnecessary, and will order Public Service to modify its plan to eliminate this requirement.

f. Staff testimony identified three concerns with Public Service's forecast: the treatment of energy efficiency in the forecasting equations, the future reliability of direct load-control as a resource, and the details of the customer load-control program. Staff requests that Public Service, Staff, and other interested parties meet to discuss these matters. The Commission suggests that Public Service convene a meeting of all interested parties to discuss these issues within one month after this decision becomes final, and that Public Service shall report the results of these meetings in its next resource plan presentation.

g. Staff suggested in this proceeding that Public Service should be encouraged to take advantage of its banking contract with Colorado-Ute. The Commission concurs with this suggestion and encourages Public Service to do so in order to save ratepayers as much money as possible and to use resources as efficiently as possible.

h. The evidence presented by the intervenors suggests that Public Service should be held to the price cap established for each block of power placed for QF bid. The Commission agrees and finds that Public Service should modify the plan to require that it shall either build or purchase any block of power which is not successfully bid at or under the established price cap. In the alternative, Public Service may again place this block of power for QF bids.

i. Public Service testimony indicated it will supply any amounts of capacity which are bid at the price cap. However, Public Service also testified that it should have the right to re-examine the price cap if it must supply amounts of capacity which are less than the increment placed for bid. The Commission finds that if amounts of capacity, less than that placed for bid, are not filled by the bidding process, Public Service may either supply these increments of capacity at or under the price cap, or may reopen the bidding at re-examined price caps. If no bids are received at or under the re-examined cap amount, Public Service, as the provider of last resort, may then either build or purchase these amounts of capacity at or under the re-examined price

caps. However, Public Service shall not re-examine or rebid these lesser increments of capacity more than one time. The Commission finds that Public Service shall modify its plan to conform with these findings.

j. The Staff presented testimony that the reopening of bidding, after award of a contract has been made should not be allowed, except under extreme circumstances. The Commission is persuaded that the bidding process should not be reopened after successful bids have been awarded, except under the most extreme circumstances, such as an oil embargo.

k. Demand-side bidding was suggested in this proceeding, and that bids from others than QFs should also be accepted. All-source bidding, including demand-side bidding, are matters which the Commission is seriously considering, and which may ultimately become part of the bidding process. However, as a first step, the Commission finds that only QF bidding should be adopted and, as more experience is gained in the bidding process, bids from other sources, including demand-side bidding, may eventually be adopted. The Commission will not require Public Service to modify its plan to include bids from others than QFs at this time.

l. Colorado-Ute testified that the present category 4 QFs who contacted Public Service before November 4, 1987, and who are presently negotiating contracts, should be subject to the bidding process. Colorado-Ute further suggests that it will be adversely affected by any contracts with these existing QFs since it is a substantial purchaser of power from Public Service. The Commission finds that the category 4 QFs now negotiating with Public Service should continue to negotiate through December 31, 1988. If any of these QFs is unable to achieve contracts by that date, they shall then be subject to the bidding procedure established by this decision. The Commission also points out that it previously stated that any contracts with these QFs will be carefully reviewed for determination of whether they contribute to the over-supply problem which prompted this proceeding. Moreover, the rates paid by Colorado-Ute for the power it purchases from Public Service are established by FERC. Accordingly, the Commission has no jurisdiction to consider the rate issue Colorado-Ute raised. The Commission will therefore not order Public Service to modify its plan in this regard.

THEREFORE THE COMMISSION ORDERS THAT:

1. The application of Public Service Company of Colorado regarding cogeneration and small power producers, Application No. 38771, is granted in accordance with this Decision and Order. Public Service Company of Colorado shall establish its avoided costs for the purchase of small power production and cogeneration facilities in accordance with a bidding plan in conformance with ordering paragraph 2.

2. Public Service Company of Colorado shall modify its comprehensive bidding plan filed in response to Colorado Public Utilities Commission Decision No. C87-1690, (Exhibit No. 1) in this proceeding, to conform to the changes in the statement and findings portion of this Decision.

3. Public Service Company of Colorado shall file new Qualifying Facility Tariffs, which shall replace the existing Public Service Company Independent Power Production Tariffs pages 1 through 25, now on file with the Colorado Public Utilities Commission. The tariffs ordered to be filed by this Order shall be filed within 20 days after Application No. 38771 becomes final before the Commission. These tariffs shall be filed on 30-day's notice to the Commission and shall refer to the Commission's final decision in this matter.

4. Public Service Company of Colorado shall file proposed standard qualifying facility contracts within 30 days of the date of this Decision and Order. All parties may comment on these proposed standard contracts for an additional 30 days. The Commission will approve or disapprove these proposed standard contracts after the expiration of this time period.

5. Public Service Company of Colorado shall apply the risk measurement, risk reduction factors and form of deposit as in the statement and findings portion of this Decision to the category 4 qualifying facilities now negotiating with Public Service Company of Colorado.

6. Public Service Company of Colorado will meet with the Staff of the Colorado Public Utilities Commission to discuss the concerns of the Staff with Public Service Company of Colorado's forecast, and report the results of the meeting in its October 1988 resource plan presentation.

7. The 20-day time period provided by § 40-6-114(1), C.R.S., to file an application for rehearing, reargument, or reconsideration begins on the first day after the mailing or serving of this Decision and Order.

This Order and Decision shall be effective 30 days after issuance.

DONE IN OPEN MEETING the 9th day of June 1988.

THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

ARNOLD H. COOK

ANDRA SCHMIDT

Commissioners  
COMMISSIONER RONALD L. LEHR SPECIALLY  
CONCURRING

COMMISSIONER RONALD L. LEHR SPECIALLY CONCURRING:

Staff of the Commission argued in its position statement that a new demand forecast should be prepared to accompany a new resource plan by October 1988, that informal agreement without a hearing should be sought through negotiations on forecast and plan issues, and that a 45-day comment period on the demand forecast, resource plan and the RFP prepared by Public Service should follow, with the forecast plan, and RFP set for hearing if differences remain among the parties.

In its reply statement, Staff restated its position on the resource plan procedure, quoting Dr. Schmitz's direct testimony that "The Company should be free to produce its demand forecast without influence from other parties." Staff then argues that for purposes of bidding for QF power, the demand forecast and resource plan must be examined after they are prepared by PSCo, because the Commission has a responsibility to determine if the planning, as implemented in part by QF bidding, will result in just and reasonable rates. This can only be accomplished if bids produce capacity and energy which are needed.

In Decision No. C87-1690 in Application No. 38680, the Commission ordered a moratorium on QF contracts, because of its concerns about over capacity, if Public Service were to contract for all the QF capacity and energy then being offered to it. For the reasons stated by Staff, we should find that Staff's proposal for review of Public Service's demand forecast for purposes of bidding is in the public interest. Staff's proposal, if adopted, would assure that QF bidding will not result in overcapacity, would allow concerns about the 20 percent QF limit to be reviewed, would ensure fair treatment of bidding parties in the allocation of capacity to the various ESG groups, and would keep the burden of proof that the demand forecast and resource plan as used for purposes of bidding is fair and reasonable where that burden belongs, on Public Service.

(S E A L)

THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

RONALD L. LEHR

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Commissioner



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