

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

IN THE MATTER OF THE PROPOSED	)	INVESTIGATION AND SUSPENSION
INCREASED RATES AND CHARGES	)	DOCKET NO. 1640
CONTAINED IN TARIFF REVISIONS	)	
FILED BY THE PUBLIC SERVICE	)	
COMPANY OF COLORADO, 550 - 15th	)	DECISION AND ORDER
STREET, DENVER, COLORADO, UNDER	)	OF THE COMMISSION
ADVICE LETTER NO. 900 - ELECTRIC,	)	PHASE I
ADVICE LETTER NO. 375 - GAS,	)	
ADVICE LETTER NO. 33 - STEAM.	)	

May 22, 1984

P R E C I S

PUBLIC SERVICE COMPANY OF COLORADO AUTHORIZED TO INCREASE,
ELECTRIC, GAS AND STEAM RATES TO PROVIDE ON A TEST YEAR BASIS ADDITIONAL
REVENUE OF \$60,579,170 ABOVE REVENUES AUTHORIZED IN INVESTIGATION AND
SUSPENSION DOCKET NO. 1525. RATE OF RETURN ON COMBINED RATE BASE OF
10.21% AND 14.4% RATE OF RETURN ON EQUITY AUTHORIZED.

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BY THE COMMISSION:

HISTORY OF THE PROCEEDINGS

On November 18, 1983, Public Service Company of Colorado (hereinafter Public Service or Respondent or Company) filed with the Commission six advice letters, which pertain to electric rates, gas rates, and steam rates, respectively. This decision and order pertains only to three of the six advice letters which are as follows:¹

1. Advice Letter No. 900 - Electric, which is accompanied by one tariff sheet pertaining to Colorado PUC No. 6 - Electric.
2. Advice Letter No. 375 - Gas, which is accompanied by one tariff sheet pertaining to Colorado PUC No. 5 - Gas.
3. Advice Letter No. 33 - Steam, which is accompanied by one tariff sheet pertaining to Colorado PUC No. 1 - Steam.

The increases sought by Public Service are as follows:

Also on November 18, 1983, Public Service filed Advice Letter No. 899-Electric wherein it requested a 3.47 percent across-the-board increase in electric rates, Advice Letter No. 374-Gas wherein it requested a 2.78 percent across-the-board increase in gas rates and Advice Letter No. 32-Steam wherein it requested a 15.8 percent across-the-board increase in steam rates. The combined effect of these three advice letters is to produce an increase in annual revenues of \$43.0 million based upon a test year ended March 31, 1983. Public Service stated that: (1) the tariffs filed pursuant to Advice Letters No. 899-Electric, No. 374-Gas and No. 32-Steam, would produce one-half of a "make whole" case, (2) accordingly, there was no basis under the Public Utilities Law, as amended, for suspension of the tariffs filed therewith, and (3) the tariffs should be permitted to become effective on a 30-day statutory notice, that is on December 18, 1983. The \$43 million filing, as requested by Public Service under Advice Letter No. 899-Electric, Advice Letter No. 374-Gas and Advice Letter No. 32-Steam is not in addition to the \$123.2 million filing represented by Advice Letter No. 900-Electric, Advice Letter No. 375-Gas, Advice Letter No. 33-Steam; rather Public Service sought to obtain \$43 million of the \$123.2 million on December 18, 1983 without suspension. Public Service further stated that if the \$43 million filing were permitted to become effective without suspension, it would assume the burden of proof not only with respect to the aggregate \$123.2 million concurrent filing, but also with respect to the \$43 million filing for which it sought non-suspension, and Public Service further stated that if the revenue increase which is ultimately approved is less than \$43 million, Public Service would agree to refund the difference voluntarily in order to eliminate any question regarding the Commission's authority to order it. The tariffs filed by Public Service on November 18, 1983 pursuant to Advice Letters No. 899-Electric, 374-Gas, and 32-Steam, respectively, went into effect by operation of law on December 18, 1983 without suspension.

<u>Operations</u>	<u>(\$)</u> Increase	<u>(%)</u> Increase
Electric	\$ 95,400,000	12.47%
Gas	26,400,000	4.77%
Steam	<u>1,400,000</u>	<u>22.18%</u>
Total	<u>\$123,200,000</u>	<u>9.29%</u>

With respect to the filings of Advice Letter No. 900 - Electric, Advice Letter No. 375 - Gas, and Advice Letter No. 33 - Steam, Public Service requested that the Commission promptly suspend the same only for the initial 120 day suspension period provided in CRS 1973, 40-6-111, and establish a procedural schedule with a view toward commencing hearings in February, 1984. Public Service stated that it would file and serve its direct evidence in support of its request within ten days of the expiration of the period established for intervention.

As in the past, Public Service has suggested that the revenue requirements and rate design phases of hearings be separated into two separate phases, that the revenue increases resulting from an order in Phase I be allowed to become effective upon the completion of Phase I and that the Phase II proceeding be held wherein interclass rate base and expense allocations and rate design matters could be addressed. Final rate designs and attendant charges would then replace the respective percentage increase riders resulting from Phase I.

The Commission has determined that the procedural methodology previously used in Investigation and Suspension Docket No. 1425 (I&S 1425) and Investigation and Suspension Docket No. 1525 (I&S 1525) would be used with regard to the current general rate case. That is, by this decision, the Commission is entering the Phase I revenue requirements order which is being designated as a final order subject to Commission review upon reconsideration, reargument or rehearing for judicial review purposes in accordance with CRS 40-6-114 and 40-6-115, respectively. The increase in Public Service's revenue requirement found to be appropriate

will be spread on a uniform percentage basis to the various classes of service pending resolution of any rate design issues.

Public Service proposed using a historic test year ending March 31, 1983. The Commission has accepted this test year in this docket.

On December 6, 1983, the Commission entered Decision No. C83-1816 wherein it set the tariff revisions filed by Public Service with respect to its Advice Letters No. 900-Electric, No. 375-Gas, and No. 33-Steam for hearing to commence on January 24, 1984 and established Investigation and Suspension Docket No. 1640 (I&S 1640).

Pursuant to the provisions of CRS 40-6-111(1), the effective date of the tariffs filed with the above-mentioned advice letters by Public Service was suspended until April 16, 1984, or until further order of the Commission. By Decision No. C84-429, dated April 10, 1984, the Commission further suspended the effective date of these same tariffs until July 15, 1984, or until further order of the Commission.

Also by Decision No. C83-1816, the Commission determined that the proceedings would be conducted in two phases: Phase I would consider the revenue requirement of the Company and Phase II would consider the appropriate spread of the rates. This decision further provided that anyone desiring to intervene as a party would be required to file an appropriate pleading with the Commission on or before December 19, 1983, and serve a copy thereof on Public Service or its attorney of record.

Public Service on December 19, 1983 filed the Phase I written direct testimony and exhibits of J. N. Bumpus, R. R. Midwinter, and J. H. Ranniger.

The following parties moved to intervene and by executive rulings or bench decisions of the Commission were granted status to participate as intervenors:

ACORN
City of Aurora
City of Brighton
City of Boulder
City of Commerce City
City and County of Denver
City of Littleton
(Hereinafter collectively
Cities)

City of Westminster
CF&I Steel Corporation (CF&I)
Federal Executive Agencies (FEA)
Metropolitan Organization
for People (MOP)
Edward Sisneros
Staff of the Commission (Staff)
Union Oil of California
United Seniors of Metropolitan
Denver

Public testimony was received by the Commission at the following times and places:

Denver, Colorado, February 8, 1984 at 12:00 Noon and 7:00 P.M.

Pueblo, Colorado, February 9, 1984, at 11:00 A.M.

Fort Collins, Colorado, February 10, 1984, at 11:00 A.M.

Alamosa, Colorado, February 22, 1984, at 1:00 P.M.

Durango, Colorado, February 22, 1984, at 7:00 P.M.

Grand Junction, Colorado, February 23, 1984, at 11:00 A.M.

Steamboat Springs, Colorado, February 23, 1984, at 7:00 P.M.

The summary of direct testimony and the cross-examination of Public Service witnesses commenced on January 25, 1984 and continued on January 26, January 31 and February 2, 1984.

On February 15, 1984, the written direct testimony and exhibits of the following members of the the Staff of the Commission were filed:

Robert L. Ekland	Eric L. Jorgensen
William A. Steele	James M. Summers
Dianne L. Wells	Warren L. Wendling

On February 15, 1984, the written direct testimony and exhibits of Matityahu Marcus, Michael D. Dirmeyer, and Jamshed K. Madan were filed on behalf of Cities.

On February 15, 1984, the direct testimony and exhibits of Robert L. Marshall and George J. Stolnitz was filed on behalf of the FEA.

On March 6, 7, 8, 9, and 13, 1984, the Commission heard the summary of direct testimony and cross-examination of all witnesses who had filed testimony on behalf of the Staff, or party intervenors.

On March 14, 15, and 16, 1984 the Commission heard rebuttal testimony by Public Service witnesses, R. C. Kelly, R. R. Midwinter, J. H. Ranniger, J. N. Bumpus, D.D. Hock, and D. C. Bauer. On March 16, 1984, the Cities called as their rebuttal witnesses, Jamshed K. Madan and Michael D. Dirmeyer.

The hearings with respect to Phase I of Docket 1640 were concluded on March 16, 1984 and the matter was taken under advisement by the Commission.²

On or before March 26, 1984, the following parties submitted post-hearing statements of position:

FEA
Cities
Staff of the Commission
Public Service
Edward Sisneros

The FEA filed proposed findings of fact with its Statement of Position.

Reply Statements of Position were filed on or before April 2, 1984, by the following:

FEA
Cities
Public Service
Edward Sisneros

On April 13, 1984, the Cities filed a "Motion to Strike" directed to a certain portion of the Reply Statement of Position submitted by Public Service. On April 17, 1984, Public Service filed a Response to the Cities' Motion to Strike wherein it requested the Commission enter an Order denying same in all respects other than striking any reference in Tables 1, 2 and 3 which contain Commission decisions not reflected on Exhibit No. 18. As hereinafter ordered, the Cities' Motion to Strike will be granted in part and denied in part. The Commission will strike any reference in Tables 1, 2 and 3 attached to the Reply Brief of Public Service which contains Commission decisions not reflected in Exhibit No. 18. And, in accordance with the Cities' alternative request in its Motion, the Commission will take official notice of the decision of the New Jersey Board of Public Utilities in the

²It is to be noted that the Commission established several specific motion days for the purpose of hearing motions relating to discovery, etc. Motion day hearings were held before a hearing examiner of the Commission.

Public Service Electric and Gas Company case (Docket No. 837-620, 04930-83 (3-16-84)), which was attached to the Cities' Reply Statement of Position.

Phase I-Final Decision and Order.

As indicated above, the Commission in its Decision No. CB3-1816, issued December 6, 1983, stated its intention to hear Public Service's rate request in two phases, a practice employed by the Commission in previous dockets. In Investigation and Suspension Docket No. 1330 (hereinafter I&S 1330), at the conclusion of Phase I, the Commission issued Decision No. C79-1821 on November 21, 1979, to become effective November 23, 1979, wherein it established the Phase I revenue requirement and authorized Public Service to file interim rates, on a uniform percentage basis, to be effective no earlier than November 26, 1979, pending the Commission's Decision in Phase II in that Docket. The suspension period in I&S 1330 extended until February 15, 1980; the Commission issued its final order in I&S 1330 on January 22, 1980.

In the next general rate case following I&S 1330, namely, I&S 1425, the Commission recognized that it would not be possible in that docket to conclude the hearings in the Phase II spread of the rates aspects and enter a decision before the expiration of the suspension period in I&S 1425 on January 7, 1981. Accordingly, unlike its treatment in I&S 1330, the Commission in I&S 1425 in Phase I authorized Public Service to place into effect final rates rather than interim rates. Final Phase I rates were authorized by Decision No. CB0-2346 on December 12, 1980 in I&S 1425. Accordingly, the Phase I revenue requirement decision in I&S 1425 was considered final and it was so designated for the purposes of the procedural provisions of CRS 40-6-114 and 40-6-115.

In I&S 1525 we decided to follow the same basic procedure that was first adopted in I&S 1425 and this procedure will also be used in I&S 1640. That is, in this Phase I decision we shall authorize Public Service to place into effect rate riders which will enable Public Service to have the opportunity to meet its revenue requirement. The rate riders

shall be final for purposes of the procedural provisions of CRS 40-6-114 and 40-6-115. Although the rate riders as authorized in this decision are designated as final rate riders subject to the procedural provisions of the Public Utilities Law, a portion of the revenue generated by the rate riders is subject to possible refund as result of motions for rehearing, reconsideration or reargument.

Procedural dates with respect to Phase II are set forth in the ordering portion of this decision. During Phase I, the Commission and the parties informally discussed and tentatively agreed upon procedural dates with respect to Phase II. Subsequently, on May 18, 1984, the Commissioners received a letter from the Attorney General of Colorado requesting that the Phase II procedural schedule be postponed by at least 30 days in order to enable the Office of Consumer Counsel (which will come into existence on July 1, 1984 as a result of Senate Bill 181) to have time to prepare for participation in Phase II of I&S 1640. The originally proposed schedule which called for Public Service to file its Phase II case on July 16, 1984 virtually would make the participation of the Office of Consumer Counsel impossible in Phase II. The Commission agrees that the Attorney General's request is reasonable and proper, and, accordingly, the Phase II schedule, as established by the Order herein, will be delayed for approximately six weeks with the first procedural date (that is, when Public Service files its Phase II case) postponed to August 27, 1984. The sequence of subsequent procedural dates basically will follow the same framework as was informally agreed upon earlier by the Commission and the parties; the dates will be delayed by approximately six weeks.

Submission

This matter has been submitted to the Commission for decision. Pursuant to the provisions of the Colorado Sunshine Act of 1972, C.R.S. 24-6-401, et seq., and Rule 32 of the Commission's Rules of Practice and Procedure, the subject matter of this proceeding has been placed on the agenda for an open meeting of the Commission. At the open meeting on May 22, 1984, the Decision was entered by the Commission.

II

DESCRIPTION OF THE COMPANY

Public Service is the largest public utility operating within the State of Colorado which is engaged in the generation, transmission, distribution and sale of electricity and the purchase, distribution and sale of natural gas to various areas of the State of Colorado. Public Service is the result of the merger and acquisition of many gas and electric companies dating back to the organization of the Denver Gas Company in 1869. The present entity was incorporated under Colorado law on September 3, 1924. In addition to its gas and electric service, Public Service also renders steam heat service in the downtown business district of Denver.

Electric or natural gas service, or both, are rendered at retail in over one hundred incorporated cities and towns and in various other communities and rural areas through Colorado. The Company also sells electric power and energy at wholesale for resale to five municipal electric utilities, Home Light and Power Company, Colorado-Ute Electric Association, Inc., and Southern Colorado Power Division of Central Telephone and Utilities, Inc. Wholesale electric rates and service are under the jurisdiction of the Federal Energy Regulatory Commission (FERC), the successor to the Federal Power Commission.

The Company owns all of the common stock of two subsidiary operating utility companies, namely, Cheyenne Light, Fuel and Power Company, which supplies electric and natural gas services in Cheyenne, Wyoming, and its environs, and Western Slope Gas Company, which is a natural gas transmission company transporting natural gas for service in several geographic areas in Colorado.

In addition, the Company owns approximately 99.5 percent of the common stock of Home Light and Power Company, which renders electric utility service in the City of Greeley and a large portion of Weld County, Colorado, serving approximately 35,000 customers.

The Company also owns all of the common stock of 1480 Welton, Inc., a real estate company which owns certain Public Service central office buildings, and of Fuel Resources Development Company (Fuelco), a subsidiary primarily engaged in exploration, development, and production of natural gas and oil. In addition, the Company owns all the common stock of Bannock Center Corporation, a company recently organized by Public Service to engage in non-utility real estate transactions. The Company also owns stock in various ditch and irrigation companies in connection with its use of water for generating plants.

Public Service as of December 31, 1983 had 827,100 electric customers and 720,376 gas customers. Generally, these customers are broadly classified as residential, commercial, and industrial. As of December 31, 1983, the Company had 73,492 shareholders holding common stock in the Company (34,155 of whom own 100 shares or less) and 5,997 shareholders owning preferred stock in the Company. Common shareholders who live in the State of Colorado comprise 24,574 of the total number thereof.³

³Information as to the number of electric and gas customers and shareholders was supplied informally to the Commission by counsel for Public Service.

GENERAL

There have been a number of rate proceedings involving Public Service in the past several years. During these years there has been an increased awareness and interest in the ratemaking functions of this Commission. Utility rates with respect to gas and electric service affect virtually all segments of the public. In view of inflationary and other economic pressures, general rate cases in the late 1970's and early 1980's have become more frequent despite the fact that gas cost adjustment (GCA) or purchased gas adjustment (PGA) and electric cost adjustment (ECA) clauses will, generally speaking, tend to mitigate the frequency of general rate case filings.⁴ Public participation in the rate making process before the Commission also has increased in the past several years.

The regulatory jurisdiction of the Public Utilities Commission over non-municipal utilities in the State of Colorado is grounded in Article XXV of the Constitution of the State of Colorado which was adopted by the general electorate in 1954. The Public Utilities Law, Article 40 of the Colorado Revised Statutes (1973, as amended), implements Article XXV of the Colorado Constitution. More specifically, CRS 40-3-102, vests in this Commission the power and authority to govern and regulate all rates, charges and tariffs of every public utility.

It first must be emphasized that ratemaking is a legislative function. The City and County of Denver vs. People ex rel Public Utilities Commission, 129 Colo. 41, 266 P.2d 1105 (1954); Public Utilities Commission vs. Northwest Water Corporation, 168 Colo. 154, 551 P.2d 266 (1963). It should also be emphasized that ratemaking is not an exact science, Northwest Water, supra, at 173. In the landmark case of

⁴A history of Public Service's adjustment clauses is set forth in Appendix B to this decision.

Federal Power Commission vs. Hope Natural Gas Company, 320 U.S. 591, 602-603 (1944), Justice Douglas speaking for the United States Supreme Court, stated that the "ratemaking process under the (Natural Gas) Act, i.e. the fixing of 'just and reasonable' rates, involves a balancing of the investor and consumer interests." The Hope case further sets forth the proposition that under "the statutory standard of 'just and reasonable,' it is the result reached, not the method employed, which is controlling."

In the case of Public Utilities Commission vs. The District Court, 186 Colo. 278, 527 P.2d 233 (1974), the Colorado Supreme Court stated at pages 282 and 283:

[4.5] Under our statutory scheme, the PUC is charged with protecting the interest of the general public from excessive, burdensome rates. The PUC must determine that every rate is "just and reasonable" and that services provided "promote the safety, health, comfort and convenience of its patrons, employees, and the public and shall in all respects be adequate, efficient, just and reasonable." C.R.S. 1963, 115-3-1. The PUC must also consider the reasonableness and fairness of rates so far as the public utility is concerned. It must have adequate revenues for operating expenses and to cover the capital costs of doing business. The revenues must be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

The process by which utility rates are established should be explained. Under current law, when a public utility desires to change its rate or rates, it files its new rates with the Commission, and they are open for public inspection. Unless the Commission otherwise orders, no increase in any rate or rates may go into effect except after thirty (30) days' notice to the Commission and to the customers of the utility involved.

If the thirty (30) day filing period goes by without the Commission having taken any action to set the proposed new rate or rates for hearing, the new rate or rates automatically become effective by

operation of law.⁵ However, the Commission has the power and authority to set for hearing the proposed new rate or rates of utilities which are not electric cooperatives. Setting for hearing automatically suspends the effective date of the proposed new rate or rates for a period of 120 days,⁶ or until the Commission enters a decision on the filed rates within that time. The Commission has the further option of continuing the suspension of the proposed new rate or rates for an additional period of up to 90 days for a total maximum of 210 days or approximately seven months. If the Commission has not, by order, permitted the proposed new rate or rates to become effective, or established new rates, after hearing, prior to the expiration of the maximum 210 day period, the proposed new rate or rates go into effect by operation of law and remain effective until such time thereafter as the Commission establishes the new rate or rates in the docket.

In the simplest terms, the Commission must determine and establish just and reasonable rates. In order to make this determination, the Commission generally answers two questions; first,

⁵Under CRS 40-3-104, most fixed utilities file rates on thirty (30) day notice; however, thirty (30) days is a minimum notice period, unless otherwise ordered by the Commission. A utility may select a longer notice period. In any event, if the Commission elects to set the proposed rate or rates for hearing, it must do so before the proposed effective date.

⁶CRS 40-6-111, as amended by House Bill 1444 (1987). House Bill 1444 also provides that rates filed by electric cooperatives are not subject to suspension by the Commission. In 1983, pursuant to the provisions of Senate Bill 224, regulatory jurisdiction of this Commission over distribution electric utilities was withdrawn through June 30, 1987, (with certain exceptions relating to complaints and reporting requirements). See CRS 40-1-103 (2) (b) (I) and (II).

what are the reasonable revenue requirements of the utility involved which will enable it to render its service, and, second, how are the reasonable revenues to be raised from its ratepayers. In other words, the Commission must determine the revenue requirement and the spread of the rates to meet the revenue requirement. To accomplish its task, it must exercise a considerable degree of judgment and, to the best of its ability, be as fair as possible to the different parties and positions that present themselves in any major rate case. The rate-making function involves, in other words, the making of "pragmatic adjustments" (the Hope case, supra, at page 602). It is not an easy task, but, on the other hand, neither is it a task impossible of attainment. As stated above, the rates established by this decision are based upon the Company's current rate structure and its found revenue requirement. Adjustments, if any, to Public Service's current rate structure will be determined in Phase II in this docket.

This decision is the order which effectively establishes electric, gas and steam rate increases for Public Service by tariff riders.

IV.

TEST PERIOD

In each proceeding it is necessary to select a test period. The operating results of the test period then are adjusted for known changes in revenue and expense levels so that the adjusted operating results of the test period will be representative of the future, thereby affording a reasonable basis upon which to predicate rates which will be effective during a future period.

In I&S 1330, the Commission indicated it might be appropriate for Public Service to present its next rate case on a partial (six months) future test year coupled with a partial historical (six months) test year. As a result, Public Service in its subsequent rate case (I&S 1425) did file on a partial (six months) future test year coupled with a partial historical (six months) test year. In its last rate case (I&S 1525) Public Service filed on a forecasted test year ending December 31, 1981. The Commission denominated Public Service's I&S 1525 filing as a current-test-year filing. In other words, the test year proposed by Public Service in I&S 1525 coincided with the current year in which its general rate case was being heard. Thus, a current-test-year filing is distinguished from a historic-test-year filing which uses a full historic test year from the past, or a "full future test year filing" which would use a test year which is completely subsequent to the time frame in which the rate case is being heard.

The Commission devoted considerable attention in Decision No. CB1-1999, in I&S Docket 1525, to the appropriateness of forecasted test year filings. In I&S 1525 the issue of a forecasted test year was vigorously contested.

By way of contrast with its filings in I&S 1420 and I&S 1525, Public Service in I&S 1640 filed its case on a historic test year ending March 31, 1983. On August 22, 1983, Public Service had filed Advice

Letter No. 892-Electric with the Commission requesting an electric rate increase of approximately \$57.4 million. Public Service's August 22, 1983 rate request was based upon a historic test year ending March 31, 1983. In Advice Letter No. 892-Electric, Public Service proposed that its requested electric increase of approximately \$57.4 million become effective without suspension on November 5, 1983. During the fall of 1983, the Commission held four days of informal discussions with Public Service and other interested parties directed solely to the question of whether or not the Commission should suspend Public Service's proposed electric increase and set the same for hearing. At a subsequent open meeting, the Commission indicated that it intended to suspend Public Service's proposed \$57.4 million electric increase and hold hearings. However, prior to the proposed effective date of November 5, 1983, Public Service withdrew its \$57.4 million electric rate increase request. Approximately two weeks later on November 18, 1983, Public Service filed six new advice letters with the Commission which have been referred to previously in this decision.

Public Service stated that it recognized that the use of a test year ending approximately seven and one-half months prior to the filing was unusual and "not consistent with the advanced regulatory philosophy allowed by [the] Commission in I&S Docket 1525 when the Commission allowed the use of current test year as opposed to historic test year". However, Public Service pointed out that the use of historic test year ending March 31, 1983 would enable the Commission to proceed on an expedited basis since this was the same test year which had been the subject of a thorough audit by the Staff of the Commission in connection with the August 22, 1983 filing. Public Service also pointed out this was the same test year which was the subject of considerable discussion in the informal proceedings which resulted from Public Service's August 22, 1983, \$57.4 million electric increase filing.

Although one or more of the intervenors, in opposing Public Service's request for one percent attrition allowance, alluded to the possibility that Public Service could have filed a more up-to-date historic test year, none of the parties formally opposed Public Service's historic test year ending March 31, 1983. Accordingly, that is the test year which has been utilized for purposes of this docket.

V
RATE BASE

A. Fort St. Vrain Seismic Piping and Hangar Project

Staff witness Wells proposed a negative adjustment of \$3,831,462 to Public Service's electric department rate base to eliminate the seismic piping and hangar project from utility plant in service. There was a corresponding proposed adjustment to eliminate \$7,904,862 from construction work in progress (CWIP) in the electric rate base together with a further negative adjustment of \$849,768 to account for the annualization of allowance for funds used during construction (AFUDC) associated with CWIP. In essence, the Staff contends that Public Service was or should have been aware of the extent of the problems associated with the seismic piping and hangar project at Fort St. Vrain when it entered into a settlement agreement with the General Atomic Company. The settlement agreement between Public Service and General Atomic Company was entered into on June 27, 1979. The Staff contends that Public Service has spent approximately \$18 million in connection with the seismic piping and hangar project at Fort St. Vrain which is over and above that which was provided for in the General Atomic settlement and that this \$18 million amount should be disallowed by the Commission from Public Service's electric department rate base.

Public Service, according to the Staff, was not in compliance with American National Standards Institute (ANSI) N45-2 series of quality assurance documentation at the time that Public Service entered into a settlement agreement with General Atomic Company and Public Service knew or should have known of the inadequate documentation accompanying the seismic piping and hangar project. The Staff contends that Nuclear Regulatory Commission (NRC) IE Bulletin 79-14, entered in this proceeding as Exhibit 97, ordered compliance with the previous standards of the ANSI N45-2 series and that no new standards were imposed by this bulletin.

Finally, the Staff contends that the Commission's decision initially granting Public Service a Certificate of Public Convenience and Necessity for Fort St. Vrain placed upon Public Service's investors the burden and risk of additional costs should the nuclear plant turn out to be more expensive than conventional generation. Thus, according to the Staff, Public Service and not the ratepayer should bear the burden of Public Service's failure to predict its costs adequately regarding the seismic project which in this case amounts to a cost overrun of 300 percent from the original forecasted estimate.

By way of response, Public Service contends that IE Bulletin No. 79-14 (Exhibit No. 97) was issued on July 2, 1979 or five days after the settlement agreement had been signed between Public Service and General Atomic Company. Because such bulletins are issued without any pre-notification by the NRC, and because Fort St. Vrain was not listed by the NRC as one of the nuclear plants involved in determining the need for the bulletin, Public Service or General Atomic Company had no way to have been aware of the requirement of IE Bulletin No. 79-14 at the time of the settlement. As a matter of fact, as Public Service witness Hock testified, the full extent of the modifications required by IE Bulletin No. 79-14 was not known until several months after its issuance.

On cross-examination of Mr. Hock, one of the intervenors attempted to establish that the quality assurance program in effect for Fort St. Vrain (Exhibit No. 108) should have put Public Service on notice as to the requirements of IE Bulletin No. 79-14. However, compliance with the quality assurance program in effect at the time of the settlement required dynamic computer analysis only for piping ten inches in diameter and larger. IE Bulletin No. 79-14 for the first time extended this requirement to piping systems sized between two and one-half inches and ten inches. It was this change that resulted in the additional cost to Public Service. Although the quality assurance program which has been entered as Exhibit No. 108 does appear

to contain rather stringent requirements for documentation of differences of design and as-built configurations, the document contained in Exhibit No. 108 does not specify the method to analyze the effect on seismic evaluations of any discrepancy between design and as-built configurations. Indeed, Exhibit No. 108 does not mention seismic analysis at all.

Public Service, of course, was aware of the need of additional expenditures at the time of the settlement, as a result of the failure to comply with the quality assurance program fully. Public Service was familiar with the seismic problems and it was in the process of complying with the quality assurance program mandates at the time of the settlement. There is no evidence in the record that Public Service was in default of any of the compliance deadlines. Moreover, none of these mandates required the use of dynamic computer analysis for smaller piping. Rather, as a result of national compliance activity not involving Fort St. Vrain, the NRC perceived, as indicated in IE Bulletin No. 79-14, the necessity of further investigation which ultimately led to significantly increased computer analysis requirements on smaller piping. It is, therefore, unreasonable to require of Public Service a prescience which at the time of the settlement would have foreseen the financial impact of IE Bulletin No. 79-14.

Boiled down to its essentials, the Staff contends that Public Service was imprudent in not foreseeing the additional expenditures that would be required by NRC requirements, set forth in IE Bulletin No. 79-14, and providing for the same or some contingency in its settlement agreement with General Atomic Company.

Action, or inaction, which rises to a level of an abuse of management discretion can be dealt with in a regulatory fashion by the Commission either by the disallowance of an imprudently incurred expense, or by a reduction in rate base as has been proposed by the Staff. We do not believe that Public Service acted outside the parameters of reasonable conduct. It is easy, of course, after the fact to contend

that a better agreement, with respect to a seismic piping problem, could have been negotiated by Public Service with General Atomic Company. However, there is no evidence in the record that attributes to Public Service prior knowledge of what the July 2, 1979 NRC IE Bulletin No. 79-14 would contain. A settlement agreement with General Atomic Company was finalized five days earlier. Public Service cannot reasonably have been expected to anticipate the precise requirements of IE Bulletin No. 79-14. Its conduct in this regard did not fall outside the parameters of reasonableness. In the absence of an abuse of management discretion, there is no legally justifiable basis to make the rate base adjustments proposed by the Staff, and we decline to do so.

B. Ratemaking Treatment for General Atomic Company Payments

Pursuant to the settlement agreement between Public Service and General Atomic Company, General Atomic Company has been making yearly payments to Public Service for replacement capacity to defer future construction costs for the 130 megawatts of reduced capacity at Fort St. Vrain. Public Service has offset these penalty payments against the Southeast Project and Pawnee II CWIP. These payments through the test year amount to approximately \$34.8 million. Public Service has spent \$2,357,475 on the Southeast project and has spent \$3,036,122 on the Pawnee II Generating Station which leaves \$29,469,352 as a credit in CWIP for Pawnee II. The Staff contends that Public Service's treatment of these sums does not benefit the ratepayer and allows Public Service to earn on cost-free capital. The Staff contends that these amounts should not be credited to CWIP until the money is actually expended; otherwise, Public Service earns a return on funds that were cost-free contributions to capital. Staff proposes to treat the General Atomic Company penalty payments as cost-free contributions to capital, which should be placed in a deferred credit account which reduces rate base until the funds are

actually used. The Staff's proposal will allow Public Service to use the funds as needed but it will not burden the ratapayers by requiring them to pay a return on the unexpended funds. Public Service witness Hock agreed with the Staff's proposed treatment. The Commission also agrees and, accordingly, the Staff's proposal will be adopted. Associated adjustments also must be made. These adjustments are summarized on Exhibit 60, page 5. Line 4 of Exhibit 60 restores the balance in CWIP which Public Service credited for the amount of the General Atomic Company payment which has not yet been expended by Public Service. Line 5 of Exhibit 60 restores the AFUDC associated with the General Atomic Company payments. Line 6 of Exhibit 60 credits the deferred credit account 253 with the General Atomic Company payment and reduces rate base for the penalty dollars not spent by Public Service on Pawnee II.

C. Cash Working Capital

One of the most vigorously contested rate base issues in this docket was the issue of cash working capital (CWC) and its inclusion, or exclusion, from rate base. Rate base, of course, represents the amount of capital provided by investors in order to purchase assets for use in utility service and upon which the utility is provided an opportunity to earn a fair rate of return.

CWC, as a component of rate base for rate regulatory purposes, has been defined as:

... 'the allowance for the sum which the Company needs to supply from its own funds for the purpose of enabling it to meet its current obligations as they arise and to operate economically and efficiently.'
[Barnes, The Economics of Public Utility Regulation (1942) 495.] Since it is normally

contemplated that all operating expenses will eventually be paid for out of revenues received by the Company, the need for working capital arises largely from the time lag between payment by the Company of its expenses and receipt by the Company of payments for service in respect of which the expenses were incurred. (Emphasis in original)

Alabama-Tennessee Natural Gas Co. v. Federal Power Commission, 203 F.2d 494, 498 (3rd. Cir. 1953). See also, City of Pittsburgh v. Pennsylvania Public Utility Commission, 370 Pa. 305, 88 A.2d 59, 61-65 (1952); Boise Water Corporation v. Idaho Public Utilities Commission, 97 Idaho 832, 555 P.2d 163, 166 (1976); People's Counsel v. Public Service Commission, 399 A.2d 43 (D.C. App. 1979); New England Telephone and Telegraph Co. v. Public Utilities Commission, 390 A.2d 8, 50-53 (1978). Inclusion of CWC in rate base is necessary when the utility demonstrates that investors have been required to provide the funds needed to operate the business between the time of rendering utility service and the payment therefor by customers. By including CWC in rate base, the investor earns a return on the CWC funds at whatever rate is earned on investment in plant. As explained by the Court in Boise Water Corporation v. Idaho Public Utilities Commission, *supra*:

Cash flow problems often confront a utility which must pay for expenditures prior to the time revenues therefor have been collected. To the extent that such amounts exceed the revenue collected, it is supplied by the owners of the utility as a portion of their investment and thus becomes a part of the rate base. Thus, cash working capital is a recognition of the sum which the utility needs to supply from its own funds (rather than the ratepayer's) to meet current obligations as they arise due to the time lag between payment of expenses and collection of revenues. Alabama-Tennessee Gas Co. v. Federal Power Commission, 3 Cir., 203 F.2d 494 (1953). Such allowances by the Commission are not guaranteed as a matter of course; the utility carries the burden of showing by competent evidence that the need exists.

Application of Wilmington Suburban Water Corp., 203 A.2d, 817, 829 (Del. 1964). Traditionally, such a showing was made by producing data from the utility's actual experience showing the need resulting from the time lag in collection of revenue, i.e., from a lag study. (555 P.2d at 166)

As stated in the Boise Water case, the burden of demonstrating that there should be an allowance for CMC in rate base is upon the utility requesting it. This allowance is demonstrated by means of a lead-lag study.

A lead-lag study reflects the lag in the number of days between the payment of operating expenses . . . and the receipt of payment from customers for service rendered.

Gas Service Company v. State Corporation Commission, 4 Kan. App. 2d 623, 609 P.2d 1157, 1164 (1980). The lead-lag study was explained in New England Telephone and Telegraph Co. v. Public Utilities Commission, supra:

As indicated earlier, the utility's receipt of revenues or customer payments for services provided often tends to lag behind the date upon which the utility incurred expenses with respect to the provision of such services. Thus, the utility requires a "cash advanced for expenses" working capital allowance to cover expenses during those lag days. The calculation of the utility's "net lag" involves the subtraction of its average expense lag from its average revenue lag. Revenue lag is simply the time span over which revenues lag behind expenses.

390 A.2d. at 51. The lag, however, may work in favor of the utility, as well as against the utility. See Alabama-Tennessee Natural Gas Co. v. Federal Power Commission, supra where the Court wrote:

But there are time lags which work in favor of the Company as well as those which work against it. The Company no more pays immediately every liability accrued than do its customers.

203 F.3d. at 498. Or as the Court wrote in the New England Telephone and Telegraph Co. case, 390 A.2d. at 51: "On the other hand, expense lag involves the converse situation, where the utility's expense payments lag behind the date upon which the utility receives the products or services for which it is paying." Lead-lag studies also study these expense lags

and use them as offsets to revenue lags to arrive at net cash working capital:

In determining the need for working capital, the Commission may quite reasonably and properly take into account factors which reduce the need as well as those which increase it.

Alabama-Tennessee Natural Gas Co. v. Federal Power Commission supra, at 498.

One of the earliest and most cited opinions on the subject of CWC is City of Pittsburgh v. Pennsylvania Public Utility Commission, supra. The purpose of CWC, the manner in which it is calculated and, whether it should be allowed in rate base, etc., is discussed:

Cash working capital ordinarily is the amount of cash required to operate a utility during the interim between the rendering of service and the receipt of payment therefor. It is the blood stream that gives life to the physical plant and facilities of the enterprise. It can readily be seen that initially, at the commencement of operation, capital supplied by investors must, in order that the Company can function, include such working cash in addition to the amount required for physical plant and facilities. Its allowance as an element of fair value for rate making purposes has been approved by decisions of both the Superior and Supreme Courts of this State and of the appellate courts of other jurisdictions. Almost invariably however, its allowance has been determined by the actual necessity therefor existent when disputed rates of an established and going concern are before the Commission. The determination of the dollar amount of cash working capital is based on the time lag between the service rendered and the payment therefor by the consumer.

The fair value of a utility for rate making purposes is the value fixed at the time rates are established. To the extent that the customers are providing revenues before the utility pays its costs, the investors are not supplying the funds to carry on. Whether cash working capital should be allowed as an element in determining the fair value of a utility's used and useful

property as a rate base, and if allowed the extent of such allowance, depends upon the factual situation in each case. If the financial situation of an operating company shows that sufficient funds are readily available to bridge the gap between rendition of and payment for services, no cash working capital is required and none should be allowed by the Commission.

As indicated above, a lead-lag study examines various elements of income and expense in order to determine the net lead or the net lag with respect to CWC. For a number of years, the Commission has used a formula approach to determine the CWC component of the rate base. The formula approach previously approved by this Commission generally allows the utility to include in rate base that part of working capital represented by forty-five three hundred sixty-fifths ($45/365$ ths) of operating and maintenance expenses plus fifteen three hundred sixty-fifths ($15/365$ ths) of the cost of purchased power less the average property tax liability and one-third ($1/3$) of the accrued Federal income taxes. In I&S 1425, neither Public Service nor the Staff of the Commission recommended any change in the formula approach. The Company's request in I&S 1425 for \$15,552,635 in CWC was criticized by witnesses for certain intervenors in that docket. The principal criticism was the lack of a lead-lag study. AMAX, Inc. witness Madan, in I&S 1425, recommended a balance sheet analysis in order to provide a limitation on CWC to be included in rate base. In that docket, the Commission rejected the balance sheet approach as recommended by Mr. Madan and reaffirmed the formula approach for determining CWC. Nevertheless, the Commission did state in Decision No. C80-2346, dated December 12, 1980 (page 22), that Public Service should conduct "an up-dated lead-lag study prior to its next general rate case in order to test the validity of the current formula."

The issue of an appropriate cash working capital allowance previously has been raised in I&S Dockets No. 1425 and 1525. In I&S 1525, the Commission did endorse the concept of a negative cash working capital and the Commission ordered Public Service to submit a

"comprehensive" lead-lag study in its next rate filing, which, of course, is the filing which is the subject matter of this docket. In Decision No. C81-1999, the Commission set forth in detail components which were to be included in the lead-lag study. Public Service was directed to perform CWC analyses both including and excluding such non-cash items as investment tax credit generated, investment tax credits amortized and depreciation as well as capital structure items such as long-term debt interest, preferred stock dividends, common stock dividends, current retained earnings, and deferred taxes.

By requiring the filing of the "comprehensive" lead-lag study, the Commission in I&S 1525 did not intend to pre-determine which expense and capital items belonged, or did not belong, in the CWC computation. The threshold question of which expense items belong in the CWC computation is answered quite simply by referring to the definition and purpose of the cash working capital allowance itself. We have already referred in the discussion above to a number of authoritative definitions of cash working capital. The key word in these definitions is "cash". If investor cash is needed for day-to-day operations, rate base is increased. No cash must be advanced to pay for what amounts to mere accounting entries and thus a related CWC allowance is unnecessary. If ratepayer-supplied cash reduces the amount of the investment required, rate base is reduced. Consistent with this definition of cash working capital, Staff witness Ekland, Cities' witness Madan, and FEA witness Marshall each excluded the non-cash expense items and depreciation, amortization, and deferred tax, investment tax credit and PAYSOP from their respective calculations of CWC.

In his rebuttal testimony Public Service witness Kelly contended that these non-cash items belong in the cash working capital computation. It is not unusual for utilities to seek to incorporate non-cash expenses in cash working capital computations. However, these proposals have been consistently rejected when made at the FERC. For instance, In Re:

Southern California Edison, 20 FERC P67, 301 (1983), the FERC rejected inclusion of deferred income taxes in the computation of working capital allowance. Along the same lines, In Re: Virginia Power Electric Company, 17 FERC P61, 150 (1981), the FERC rejected inclusion of nuclear fuel amortization and disposal costs as non-cash items in the proposed working capital allowance. Similarly, In Re: Pacific Gas and Electric Company, 16 FERC P63, 004 (1981), the FERC rejected inclusion of depreciation expense in working capital allowance as a non-cash item.

The philosophical difference between Public Service's position and that of the Staff and Intervenor became clear during the following cross examination of Staff witness Ekland by Public Service's attorney, Mr. McCotter:

- Q. "And someone's got to finance that [depreciation], don't they, that expense, that lag, that time period between when the investors are entitled to get that money back?
- A. No.
- Q. Under the regulatory process, and the time when that money is actually made available by the ratepayers through the payment of their bills?
- A. No, it requires no financing. It is just a lost opportunity. If they collect it sooner they can invest it sooner. But they didn't have to put up any more money to cover that time period. They only had to put up money for money they have to lay out. They don't put up money for depreciation expense, which is a source of funds.
- Q. But there is an economic cost to the enterprise, is there not, over that period of time?
- A. Through the opportunity lost of investing it sooner if they had collected it sooner." (3/7/84 Trans 115, 116). (Emphasis supplied.)

We agree with the Staff that although expenses may be incurred, no lag exists for purposes of the CWC computation unless cash is expended. It is obvious that, as to non-cash expenses, no additional cash has to be provided by investors during any lag period.

We also agree with the Staff recommendation that CWC requirements include all cash expenses, franchise fees, and sales taxes.

We further agree that all non-cash items and capital items should be excluded. Cash expenses include gas for generation, other fossil fuel, and freight, purchased power, gas purchased for resale, purchased steam, general and management labor, other O&M expenses, property taxes, FICA taxes, FUTA taxes, SESA taxes, occupational tax, major medical tax, use tax, auto-license tax, federal income tax, state income tax and steam-heat fuel. Non-cash items which should be excluded are depreciation and amortization, deferred income taxes, federal investment tax credits generated, state investment tax credits generated, payroll stock option plan, federal investment tax credits amortized, and state investment tax credits amortized. Capital items are long-term debt interest, preferred stock dividends, common stock dividends, current retained earnings, and deferred taxes.

Staff witness Ekland postulated three axioms which support his theory of the proper components to be included in CWC: (1) CWC is money put forth to meet expenses; (2) the only factors that change the level of cash working capital are the net lag days between receipt of revenues and payment of expenses, and the size of the cash expenses; (3) an out-of-pocket cash flow is not a CWC expense if it flows to a second pocket of the same party. If an item meets the criteria of the first two axioms and is not eliminated by the third axiom, then it should be included in cash working capital.

All cash expenses in CWC should be included because they meet the criteria of axioms 1 and 2 and are not eliminated by axiom 3. This would also include franchise fees and sales taxes. Although it is true that franchise fees and sales taxes are not expenses according to accounting definitions, Public Service pays these items to taxing authorities with money collected from ratepayers. Public Service witness Kelly, on rebuttal, testified that franchise fees and sales taxes should not be included in a CWC requirement because they are outside the cost of service. Mr. Kelly's concern, however, does not contradict the fact that Public Service has the use of funds collected from ratepayers which

eventually go to pay franchise fees and sales taxes until such time as they are actually paid.

Non-cash items should be excluded because they fail to meet the criteria of axioms 1 and 2. Depreciation is a source of funds supplied by ratapayers. Deferred income taxes and investment tax credits are sources of funds made available by the government. Similarly, the proceeds from the payroll stock option plan are a source of funds.

Capital items should be excluded from CWC because these items fail to meet the criteria of axioms 1 and 2 and are eliminated by axiom 3. None of the capital items are cash expenses. Public Service's investors earn the return on their investment at the time service is rendered; however, on a cash basis, those earnings are not available for the investors until the revenue dollars associated with the service rendered have been collected. It is true this time lapse results in a lost opportunity for the investor to receive a return on his earned return. However, the authorized rate of return is based on accrued earnings on funds invested, not on compensation for lost opportunity.

FEA witness Marshall recommended including long-term debt interest, but excluding all other capital items from CWC. Cities' witness Madan recommended including long-term debt interest and preferred stock dividends, but excluding all other capital items from CWC. The position of including one or two capital items and excluding the others is internally inconsistent.

Cities' witness Madan attempted to justify including long-term debt interest and preferred dividends in cash working capital with the following testimony:

If this source of funds were excluded from the lead-lag study on the theory that the source of these funds were investors, then rate base would be larger to the benefit of not investors in general, but common equity investors in particular. The result would be that common equity investors would be provided an opportunity to earn a rate of return on funds that were not provided by them but by other investors. (See Exhibit M, Page 26.)

We believe that Madan's proposal will prevent benefit to the Company and all its investors from reinvestment of interest and preferred dividends. If interest and preferred dividends are included as CWC components, the return earned by reinvesting those funds is offset by the reduction in rate base earnings. Whether interest and preferred dividends are included or excluded as CWC components, Public Service can reinvest those funds. However, if the net lag for interest and preferred dividends is allowed to reduce the CWC component, the CWC allowance for ratemaking will also be reduced. This in turn reduces rate base, earnings on rate base, and the times interest earned ratio (TIER) which is the ratio of earnings to interest. If interest and preferred dividends are excluded from CWC, the increase in earnings resulting from the reinvestment of those funds will benefit the Company and all its investors. In contrast, the reduction in earnings and TIER which is caused by including interest and preferred dividends as CWC components will create pressure on financial analysts to downgrade the Company's bond and equity ratings which is detrimental to ratepayers in the long run.

D. Unbilled Revenues

In Public Service's last major rate case I&S 1525, witness Madan for AMAX, Inc. proposed that the Commission recognize Public Service's unbilled revenues in one of three ways: adjust revenues upward for unbilled revenues; adjust downward the expenses related thereto; or include an adjustment in the working capital calculation. In I&S 1525, the Commission rejected an adjustment for unbilled revenues because it found that the use of a projected test year in that docket corrected any mismatch of revenues and expenses. In I&S 1640 witness Madan, appearing this time for the Cities, again raised the issue of Public Service's unbilled revenues. Mr. Madan recommended that Public Service's revenue lag be reduced by 20.5 days to reflect unbilled revenues. Mr. Madan described the nature of unbilled revenues as follows:

Unbilled revenues is the term used to connote the value of service that has been provided to customers between the date that service is provided and the date that the value of such service is booked as revenue by the company (generally, the billing date). For example, consider a company that is starting operations. For the first 30 days of operations, the company would be incurring costs to provide service but booking no revenues until approximately the 20th day. Revenue would begin to be booked on the 20th day assuming a cycle meter reading and billing system, such as is used by PSCo. Finally, after the bills are rendered and paid, approximately 43 days after operation when first started, the company would actually begin to receive cash from its customers due to the provision of service. (EX.M at page 20).

Thus, according to Mr. Madan, since costs are accounted for on the income statement as expenses when they are incurred, and revenues are booked only when the customer is billed, the expense related to a particular service is recorded before the corresponding revenues relating to the same service, resulting in a mismatch of revenues, expenses and investment.

It is true that no witness in this proceeding appeared to take issue with the fact that there was a technical mismatch of revenues, expenses and investment as defined by Mr. Madan.

Although persuasive arguments can be made both for and against adjusting for unbilled revenues either through the cash working capital component or through the operating income statement, the Commission is not convinced that adoption of Mr. Madan's proposals through CWC with regard to Public Service's unbilled revenues is warranted. As indicated above, Mr. Madan proposed to adjust for Public Service's unbilled revenues through the CWC calculation by reducing Public Service's revenue lag by 20.5 days. The whole complex procedure of including unbilled revenues in the lead-lag study for CWC calculations is misleading because it implies that the Company has the use of the unbilled revenues. But, of course, that is impossible because these earned revenues have not yet been billed.

Generally accepted accounting principles permit a utility, such as Public Service, to account for revenues in one of two ways, namely,

(1) the utility can book revenues at the time service is rendered (i.e., billed) or, (2) the utility can book revenues at the time payment is received (i.e., unbilled). Either method is acceptable provided that the one chosen is used consistently over time. Public Service has been using the second method for over 40 years.

Mr. Madan's companion suggestion that the Commission order a five-year amortization of unbilled revenues for prior periods is unacceptable. The balance sheet effect of unbilled revenues as of December 31, 1982 is \$33,408,000 for the electric department and \$10,612,000 for the gas department. Mr. Madan proposed to bring these amounts into the test period and adjust revenue requirements through the amortization process, which, in our opinion, would result in a serious mismatch of revenues and expenses for ratemaking purposes. Moreover, as indicated above, these balance sheet amounts have been built up over approximately a 40 year period. Also, Mr. Madan assumes that the customer in all instances provided the \$44,020,000 unbilled balance. For this to be true, Public Service would have had to have filed a rate case each year for forty years. This has not been the case because for many years Public Service did not file rate cases.

Although the Staff has indicated that it believes the proper regulatory treatment of unbilled revenues merits further inquiry, we believe the issue has been thoroughly and extensively explored in three dockets involving Public Service. At this time, we would state to the parties in this docket that we do not believe reexamining the unbilled revenues issue will materially enhance the Commission's understanding of the subject or result in any regulatory modification on our part with respect to this issue. Obviously, this Commission cannot dictate what course future rate cases may take, but we do believe that it is appropriate to inform the parties that the unbilled revenues issue is not a likely candidate for regulatory change by this Commission in the near future.

E. Lead-Lag Days

The Staff made several adjustments to the expense lag days contained in Public Service's comprehensive lead-lag study. Staff witness Ekland reversed Public Service's adjustment to expense lag days for gas for generation due to a refund made by Colorado Interstate Gas Company (CIG). Although investors initially supplied the funds used by Public Service to pay CIG, the investors were compensated when the rendered service bill was collected. The overcharge was paid to CIG with ratepayer funds. Accordingly, the Staff reversed the Company's adjustment so that the investors would not earn a return on the ratepayers' money held by CIG. The Staff also made a corresponding adjustment to the expense lag days for steam heat fuel which resulted from the adjustment to gas for generation. Public Service did not dispute these adjustments in its rebuttal case, and the Commission agrees that said adjustments should be adopted.

Another adjustment recommended by the Staff was to extend lag days for general and management labor. Public Service pays its administrative payroll before the end of the month even though the wages are not due and payable until the end of the month according to a Public Service memo which is contained in Exhibit 59, page 51. The Staff contends that early payment of wages is for the convenience of Public Service's employees, and that ratepayers should not be required to pay for this convenience. The Staff also made a corresponding adjustment to the expense lag days for FICA taxes based upon the payment of these taxes on the date that administrative payroll is due and payable.

On rebuttal, Public Service witness Kelly testified that Public Service's policy regarding early payment of its administrative payroll and the resulting costs were reasonable and therefore properly includable in the cost of service. Public Service witness Kelly also asserted that a comprehensive lead-lag study should be based upon the actual lead or lag days experienced by Public Service. However, Mr. Kelly offered no

basis for his opinion that the resulting costs, arising out of early payment of wages and salaries, was reasonable. We agree with the Staff that it is necessary to analyze actual lead and lag days to determine whether they are consistent with the theory of CMC and whether they are reasonable. To the extent that lead or lag days are unreasonable or inconsistent with a CMC theory, we believe that they should be properly adjusted. Whatever administrative convenience may accrue to the Company from the early payment of wages, it does not necessarily follow that the CMC allowance should be increased (an increase borne by ratepayers) in order to accommodate this administrative convenience to the Company. Accordingly, the Commission accepts the Staff's adjustment with regard to the early payment of administrative payroll.

The Staff used a similar philosophy when it made an adjustment to lag days for franchise fees. This adjustment reflects lag days that would occur if the Company paid these fees on due dates rather than Public Service's practice of payment before the due dates. The Staff also calculated expense lag days for sales tax which the Company's comprehensive lead lag study did not include. We agree with the Staff that the proper measurement of the expense lag days for franchise fees and sales taxes should be calculated based upon the actual due dates, rather than upon the dates when the Company chooses to make payment.

Public Service used a simple random sample of residential, commercial and industrial meters to calculate revenue lag days. However, we agree with Staff witness Ekland that Public Service should use a properly stratified random sample which would be weighted by the percentages of revenues from each customer class. Because it is probable that different customer classes have different payment habits, a properly stratified random sample would reveal the proper number of revenue lag days. For example, Mr. Ekland made the assumption that commercial, industrial and public authority customers are more prompt than residential customers in paying their bills. Furthermore, he believes

that this promptness will improve in the future because these classes will be assessed a late charge for overdue bills, while the residential class will not be subject to such a charge. If these assumptions prove incorrect, a stratified random sample will reveal that.

The Public Service sample of customer payments did not include revenues from unmetered sales to public authority customers and steam department customers. The proportion of industrial revenues to total revenues sampled was .0015 percent in Public Service's sample. However, the industrial classification represented approximately 12 percent of Public Service's total sales for 1982. Assuming that there are different payment habits for each customer class, Public Service's simple sample distorts the number of revenue lag days because revenues from the industrial, public authority, sales for resale and steam department customers in the sample were not weighted for their respective total contributions to total Company revenues. Public Service did not offer any rebuttal evidence to counter the Staff's opinion that different customer classes have different payment habits or to rebut the Staff's contention that a stratified random sample is superior to a simple random sample.

The Staff also disagreed with Public Service's method of counting revenue lag days. The number of revenue lag days is defined as the number of days between the mid-point of the service period and the date payment for that service is received by the Company. Public Service has determined that there are 43.5 revenue lag days. However, the Staff recommended that the revenue lag days be pinpointed at 43.0. Both the Staff and Public Service assume that the service period begins and ends at noon on the dates that the meter is read. Both the Staff and the Company count the beginning and ending days of the service period as half days in determining the mid-point of the service period. The only difference between the Staff and Public Service's calculation of revenue lag days is in the treatment of the day that payment is received.

The Staff contends that the payment date should not be counted because on that day the company can put the funds to its own use. In its lead-lag study, Public Service similarly stated that the payment day is not counted as a lag day. However, on rebuttal cross-examination, Public Service witness Kelly testified that Public Service's previous statement was in error in that the date payment is received should be counted as a half day. Public Service, however, did not offer any evidence to justify why the payment date should be counted as a half day.

We agree that the Staff's method of counting revenue lag days is consistent with its method of counting expense lag days. The Staff counts expense lag days from and including the mid-point of the service period to, but not including, the date the expense is paid. Since the Company does not have the use of the funds on the day the expense is paid, that date is not included as an expense lag day. Conversely, since the Company does have the use of the funds on the date payment for service is received, that date is not included as a revenue lag day.

Public Service counts its expense lag days using the same methodology as the Staff. However, the Public Service's method of counting revenue lag days is inconsistent with its method of counting expense lag days. Public Service's treatment of the date payment for services received as a half day in the revenue lag day results in double-dipping. If the date payment for service is received is counted as half a revenue lag day, then the Company can both earn interest on those funds and earn a return from ratepayers through inclusion of those funds in the CWC allowance.

Public Service enumerates three ways to count days with respect to revenue lags and expense leads. Count the first day but not the last; do not count the first, but count the last; or count from the same time on the first day to that time on the last day. Public Service contends that the use of the first method to determine expense leads does not preclude one from using one of the other equally acceptable methods to

determine the revenue lag. We disagree with Public Service and believe that the Staff's method of counting revenue lag days is consistent with its method of counting expense lag days and that, accordingly, its methodology should be adopted.

During the hearing, Staff witness Ekland did not calculate a specific CWC requirement for the electric, gas and steam departments, respectively, because each figure is dependent upon the final revenue increase authorized in this docket. An increase in earnings produces an increase in current income taxes which has the effect of lowering the CWC requirement. Also the earnings deficiency found by the Commission in this docket affects franchise fees, sales taxes, and Federal income tax deductibility of long-term debt interest. As a result of a Commission authorized return on equity of 14.4 percent and an authorized return on rate base of 10.21 percent, and after making various pro forma test-year adjustments, the CWC requirement for the three departments before FERC allocations in the electric department is as follows:

Electric department	\$ 600,139
Gas department	\$8,310,988
Steam department	\$ 71,175

F. Summary of Year End Rate Base

We find that the net year-end rate base for Public Service's Electric Department totals \$1,654,425,687 and is comprised of the following items and amounts:

March 31, 1983 Electric Year-End Rate Base

Utility Plant in Service	\$ 2,149,168,456
Utility Plant Held for Future Use	1,421,721
Construction Work in Progress	53,233,208
Common Utility Plant in Service Allocated	67,720,950
Prepayments	1,578,680
Utility Materials and Supplies	102,919,492
Cash Working Capital Requirements	600,139
Customer Advances for Construction	<u>26,783,698</u>

Gross Year-End Original Cost Rate Base	\$ 2,349,858,948
Less:	
Reserve for Depreciation and Amortization	552,085,099
Other Deferred Credits -- Reserve for Replacement Capacity	29,469,352
Rate Base Allocated to FERC	
Jurisdictional Sales	<u>113,878,810</u>
Year-End Net Original Cost Rate Base	\$ <u>1,654,425,687</u>

We find that the net year-end rate base for Public Service's Gas Department totals \$258,112,285 and is comprised of the following items and amounts:

<u>March 31, 1983 Gas Year-End Rate Base:</u>	
Utility Plant in service	\$ 346,240,409
Utility Plant Held for Future Use	16,273
Construction Work in Progress	3,341,689
Common Utility Plant in service Allocated	45,072,080
Prepayments	278,119
Utility Materials and Supplies	157,765
Cash Working Capital Requirements	8,310,988
Customer Advances for Construction	<u>(5,704,273)</u>
Year-End Gross Original Cost Rate Base	\$ 397,713,050
Less:	
Reserve for Depreciation and Amortization	<u>139,600,765</u>
Year-End Net Original Cost Rate Base	\$ <u>258,112,285</u>

We find that the net year-end rate base for Public Service's Steam Department totals \$9,427,128 and is comprised of the following items and amounts:

March 31, 1983 Steam Year-End Rate Base

Utility Plant in service	\$ 10,250,058
Utility Plant Held for Future Use	7
Construction Work in Progress	(4001)
Common Utility Plant in service Allocated	64,032
Prepayments	7,270
Utility Materials and Supplies	4,145,034
Cash Working Capital Requirements	71,175
Customer Advances for Construction	<u>0</u>
Year-End Gross Original Cost Rate Base	\$ 14,543,575
Less:	
Reserve for Depreciation and Amortization	<u>5,116,447</u>
Year-end Net Original Cost Rate Base	<u>\$ 9,427,128</u>

We find that the combined net year-end rate base of the Electric, Gas, and Steam departments totals \$1,921,965,100 and is comprised of the following items and amounts:

March 31, 1983 Combined Year-End Rate Base

Utility Plant in service	\$ 2,505,668,923
Utility Plant Held for Future Use	1,438,001
Construction Work in Progress	56,570,896
Common Utility Plant in Service Allocated	112,257,062
Prepayments	1,864,068
Utility Material and Supplies	107,222,291
Cash Working Capital Requirements	8,982,302
Customer Advances for Construction	<u>(32,487,971)</u>
 Year-End Gross Original Cost Rate Base	 \$ 2,762,115,573
 Less:	
Reserve for Depreciation and Amortization	\$ 696,802,311
 Other Deferred Credits - Reserve for Replacement Capacity	 29,469,352
Rate Base Allocated to FERC Jurisdictional Sales	\$ <u>113,878,810</u>
 Year-End Net Original Cost Rate Base	 \$ <u>1,921,965,100</u>

VI
RATE OF RETURN

A. Capital Structure

Each of the four rate-of-return witnesses in this proceeding agreed that an arithmetical mechanism should be used to derive an overall rate of return. Specifically, all rate-of-return witnesses summed the weighted cost of each capital category to derive an overall rate-of-return. In deriving the weighted cost of each capital category, the rate-of-return witnesses utilized the following Public Service March 31, 1983 Capital Structure:⁷

	<u>Capitalization</u>	<u>Ratio</u>
Long-term Debt	\$ 808,564,978	44.36%
Preferred Stock	229,400,000	12.59%
Common Equity	703,358,747	38.59%
Deferred Taxes and Reserves	81,284,438	4.46%
Total	<u>\$1,822,608,163</u>	100.00%

⁷Dr. Marcus, testifying on behalf of the Cities, used figures which deviated slightly from the other rate of return witnesses, based on a deferred tax adjustment proposed by Cities' witness Mr. Dirmeier.

B. Cost of Long-Term Debt and Preferred Stock

No party challenged the costs assigned by Public Service to long-term debt and preferred stock in the amounts of 8.36 percent and 7.43 percent, respectively. Accordingly, those respective costs are adopted by the Commission in this docket.

C. Rate of Return on Equity

As in the past, the parties were not in agreement with respect to the proper cost to be assigned to common equity. On the basis of the record made in this proceeding, we find that a rate of return on Public Service's rate base of 10.21 percent and a rate of return of 14.40 percent on equity is fair and reasonable, sufficient to maintain financial integrity, to attract equity capital in today's market, and commensurate with rates of return on investments of other enterprises having corresponding risks.

As in the past, the Commission finds and concludes that the discounted cash flow (DCF) methodology is acceptable for deriving a fair rate of return on common equity. All of the intervenors and the Staff used minor variations of the traditional DCF methodology consisting of the dividend yield plus growth to determine a recommendation for return on equity. The recommendations made by the Staff and intervenors are as follows:

Intervenors and Staff			
<u>Cost of Equity Recommendations</u>			
	<u>Dividend Yield %</u>	<u>Growth %</u>	<u>Recommended Return on Equity %</u>
Cities	10.5	4.0	14.5
Mr. Sisneros	10.5	4.0	14.5
FEA	10.5	4.0	14.5 ^B
Staff	10.3	3.5-4.5	13.8-14.8

^BFEA witness Stolnitz initially recommended 14.9 percent; the 14.5 percent figure is derived from FEA's statement of position.

Public Service also used a DCF methodology for the purpose of deriving a fair rate of return on common equity. However, Public Service did not use what came to be described during the proceeding as the traditional DCF methodology, but rather used what it denominated as a "refined DCF methodology." Pursuant to its refined DCF methodology, Public Service concluded that the proper rate of return on common equity was at least 15.7 percent which rate incorporated a growth rate of 4.33 percent.

With regard to the dividend yield term, there was general agreement on the use of a traditional DCF formula by Staff witness Jorgensen, Cities' witness Marcus, and FEA witness Stolnitz. Staff witness Jorgensen utilized average yields of Public Service during the thirteen week, twenty-six week and fifty-two week periods ending January 27, 1984. Averaging these three time periods, Mr. Jorgensen concluded that the dividend yield was 10.3 percent. Dr. Marcus used the average twelve-month yield of Public Service for the calendar year ending December 31, 1983 and concluded that the average yield was 10.5 percent. (Dr. Marcus also calculated a four months average dividend yield of 10.25 percent for Public Service, but recommended that the 10.5 percent dividend yield figure be used.) Dr. Stolnitz, appearing for the FEA, also recommended a 10.5 percent dividend yield based upon his initial review of Public Service's position within the capital market as a whole. Dr. Stolnitz pointed out that average Public Service yields have been falling since 1980, arriving at 10.4 percent as of February 1984, that long-term interest rates are expected to remain relatively stable for the next 12 to 24 and that A-rated bonds are expected to remain stable or fall in the next 12 to 24 months.

In calculating the dividend yield, Staff witness Jorgensen used the average of the annualized declared dividend at the beginning of each of his measuring periods and the annualized declared dividend at the end

of each of his measuring periods. In calculating Public Service's stock price, Mr. Jorgensen used the average of the high and low market prices for each of each of his measurement periods and then rounded off the yield figures to the nearest ten basis points. Public Service attempted to show through cross-examination of Mr. Jorgensen that his use of an unweighted average of the annualized declared dividend rather than a weighted average created a downward bias in the dividend component. The use of an unweighted average versus a weighted average makes no difference in the dividend component for the thirteen week and twenty-six week yields. For example, if a utility had declared a dividend of 44 cents for the first quarter, and 46 cents for the second, third and fourth quarters, the annualized dividend for the thirteen-week yield (fourth quarter) is \$1.84 on both a weighted and an unweighted average. For the same utility, the annualized dividend for the twenty-six week yield (third and fourth quarters) is \$1.84 on a weighted and an unweighted average. For a utility that had a declared dividend of 44 cents for the first, second and third quarters, and 46 cents for the fourth quarter, the annualized dividend for the thirteen week yield is \$1.84 on both a weighted and an unweighted average. The annualized dividend for the twenty-six week yield of that utility is \$1.80 on both a weighted and an unweighted average.

In measuring the dividend component for fifty-two week yields, if the dividend is raised during the second quarter, then the weighted average will be greater than the unweighted average. Conversely, if the dividend is raised during the fourth quarter, the weighted average will be less than the unweighted average for the fifty-two week yield calculations. It is true that if the dividend component is lowered, and the price is held constant, then the yield will be lowered. However, the timing of the dividend raise should be reflected in the market price of the stock. Therefore, we believe the Staff's use of the average of one hundred and four market prices in the fifty-two week yield, together with

the unweighted average of the annualized declared dividends at the beginning and ending periods has reasonably captured investor expectations as reflected in the fifty-two week yield calculation. Accordingly, for purposes of this docket, the Commission states and finds that a yield of 10.4 percent should be used for that element in developing the overall rate of return on common equity.

With respect to the growth component, Public Service witness Bumpus recommended 4.33 percent, Staff witness Jorgensen had a recommended range of 3.5 percent to 4.5 percent. Cities witness Dr. Marcus had a range of 3.5 percent to 4.3 percent and FEA witness, Dr. Stolnitz, made a 4.4 percent recommendation.

Staff witness Jorgensen analyzed growth in earnings and in imputed book value as well as growth in dividends. However, Mr. Jorgensen recommended that growth in dividends on a historic basis would be the best proxy for current investor expectations of growth to be produced by future conditions. The low end of Mr. Jorgensen's range (3.5%) represents a five year pattern of dividend growth for Public Service; whereas the high end of his range (4.5%) represents a ten year average dividend growth for Public Service. Dr. Stolnitz found that recent dividend growth patterns would support a 4.4 percent dividend growth projection, but upon cross-examination, it became clear that this was more than a conservative recommendation and, in fact, would have served as the high end of a range had Dr. Stolnitz recommended a range. Dr. Marcus considered growth in book value, earnings, dividends, payout ratios and returns on equity for his derivation of the growth component. Although his overall recommendation of 3.5 percent to 4.3 percent is well within the recommendations of Dr. Stolnitz and Mr. Jorgensen, it must be noted that if Dr. Marcus had limited his analysis to dividend growth, his recommendation would have probably have been in a more narrow range of 3.59 percent to 4.28 percent.

In deriving his projected dividend growth rate of 4.33 percent, Public Service witness Bumpus utilized projected dividend growth rates from three financial institutions: Value Line, Argus and Solomon Brothers. We believe that past dividend growth rate patterns are a more reliable indicator of the growth element than future growth rates as projected by three financial institutions. Accordingly, for purposes of this docket, the Commission states and finds that a four percent growth rate should be used for that element in developing the overall rate of return on common equity.

Public Service's proposed refined DCF methodology deserves comment. Public Service adjusts the traditional DCF methodology for the fact that dividends are paid four times a year rather than once a year, and assumes that investors require an otherwise higher rate-of-return to compensate them for the time value of money. In other words, Public Service's refined DCF method assumes that if a stated annual rate of return of ten percent is required by an investor, but the investor knows he will be paid dividends four times a year rather than only at the end of the year, then the real rate of return demanded by the investor is more than ten percent because he will receive dividends quarterly rather than annually. According to Public Service, the traditional DCF method assumes one annual dividend payment at the end of the year rather than four quarterly dividend payments throughout the year. Since, in fact, dividends are paid quarterly rather than annually, Public Service maintains that traditional DCF understates investor required return, because an investor requires not only a stated annual rate of return but also the additional return derived from the time value of money which can be realized through reinvestment. This is the first time that this refined DCF methodology has been presented to this Commission, and Public Service did not demonstrate that actual investors, or investment advisory services, rely upon a so-called refined DCF methodology in measuring investor expectations. The traditional DCF methodology provides a fairly simple formulation that may be applied easily by investors or investment

houses. There is no evidence that an investor or investment house expects a regulatory body, such as this Commission, to utilize the more complicated formulation proposed by Public Service. In any event, we believe that the refined DCF methodology has a conceptual flaw. The refined DCF builds into the dividend calculation, as indicated above, the time value of money for the part of the year the investor has use of the dividend. The investor has use of the first quarter dividend for nine months from the day the dividend is received, of the second quarter dividend for six months, and of the third quarter dividend for three months. The refined DCF method compensates the investor for the amount equal to the dividend paid, plus the amount which could be earned through reinvestment of dividends.

When the investor has received a dividend from Public Service he is free to spend the dividend in any manner he chooses, or he is free to reinvest the dividend from Public Service in some other manner such as depositing it in a bank or reinvesting in Public Service stock. If an investor reinvests his dividend in Public Service stock, then the ratepayers are obligated to pay a return on that reinvested dividend. However, if an investor reinvests his dividend in a bank, then it is the bank and not the Public Service ratepayer that is required to pay a return on that reinvested dividend. We agree with Staff witness Jorgensen and Cities witness Marcus that the refined DCF would result in double compensation for investors, once through the allowed rate of return to the utility, and a second time by including the return for reinvestment on dividends.

Finally, we are of the opinion that if investors, in fact, require a greater return than that which would be supplied by utilizing the traditional DCF methodology, that will be accomplished by the downward adjustment of the market price of the stock resulting in an increase in the rate of return. The downward adjustment of the price of the stock will increase the expected dividend yield and thereby correct any understatement resulting from the application of the traditional DCF methodology.

D. The Composite Cost of Capital

Determination of the composite cost of capital (when the fair rate of return on equity has been set) is easily derived from Public Service's capital structure and the cost of long-term debt, preferred stock and common stock. We find the composite cost of capital for Public Service is 10.21 percent derived as follows:

		<u>RATIO %</u>	<u>COST %</u>	<u>COMPOSITE %</u>
Long Term Debt	\$808,564,978	44.36	8.36	3.71
Preferred Stock	29,400,000	12.59	7.43	.94
Common Equity	703,358,747	38.59	14.40	5.56
Deferred Taxes and Reserves	<u>81,284,438</u>	<u>4.46</u>	<u>0</u>	<u>0</u>
Total	<u>\$1,822,608,163</u>	<u>100.00</u>		<u>10.21</u>

VII

REVENUE REQUIREMENT

In order to determine the revenue requirement, it is necessary to determine the required net operating earnings based upon Public Service's net rate base. We have found that the proper rate of return on that rate base is 10.21 percent, and the proper return on equity is 14.4 percent. This means that the required total authorized net operating earnings of Public Service are: \$ 196,232,637 (\$ 1,921,965,100 times 10.21 percent = \$ 196,232,637).

It is necessary to subtract the pro forma net operating earnings of Public Service in the test year, as adopted herein, from the required net operating earnings in order to determine the indicated net operating earnings deficiency. Certain adjustments to determine the pro forma net operating earnings of Public Service for the test year have been proposed, which proposed adjustments are discussed below.

A. Advertising

The Commission allows, as a proper ratemaking expense, advertising that is related to five categories: conservation specific, insulation, safety, energy conservation audit, and consumer services. Only intervenor Sisneros argued that the Commission should disallow \$448,800 in safety ads and \$202,285 in duplicate ad costs for ads appearing more than once and which are not included in the safety category. Alternatively, intervenor Sisneros urged that the Commission disallow all costs of Public Service advertising on the basis that neither Public Service witness Midwinter nor Public Service witness Pierce could testify that the ads met the Commission's standards for inclusion of ads as appropriate ratemaking expenses.

The Commission has examined all of the advertising submitted by Public Service in this docket, and, except as hereinafter noted, we find that Public Service's advertising expenses meets the criteria for inclusion in the categories of allowed advertising expenses as above enumerated. Public Service did not submit a copy of the ad in the consumer services category on Page 95 of Exhibit 23 which ad cost \$11,039. Likewise, Public Service did not submit a copy of the ad in the safety category on Page 40 of Exhibit 23 which ad cost \$186. We also find that the ad contained on Page 80 of Exhibit 23 in the Energy Conservation Audit Category, which ad costs \$4,573, did not present information to the consumer which is of any beneficial value. Accordingly, we agree that an adjustment in the advertising expense of \$15,798 should be made as a deduction from Public Service's advertising cost of service.

B. Edison Electric Institute (EEI) Media Advertising Program

Staff witness Steele made a negative adjustment of \$47,239 to Public Service's electric department administrative and general expenses net operating earnings to disallow costs for the EEI media advertising program. We agree that the aim of the EEI media advertising program is a nationwide marketing program whose goal is to boost the corporate profitability of utilities by convincing customers to alter their power habits. We agree that such communication program may be of benefit to the investor, but we do not believe that this is the type of advertising that should be funded by ratepayer dollars. Accordingly, we find that the Staff's negative adjustment in the amount of \$47,239 should be adopted.

C. EEI Dues

Intervenor Sisneros recommends that the Commission disallow all of the dues paid by Public Service to EEI on the basis that the amount of any of the money spent on particular activities and the corresponding benefit to ratepayers associated with particular EEI activities was not quantified by Public Service witness Bauer. Staff witness Steele made a negative adjustment of \$50,797 to the electric department administrative

and general expenses to account for 25 percent of Public Service's request for EEI dues. Mr. Steele based this adjustment on a Staff subcommittee on accounts report of the National Association of Regulatory Utility Commissioners (NARUC) which recommended that 25 to 33 percent be disallowed for EEI dues because EEI did not quantify the dollar amount of ratepayer benefit associated with lobbying and legislative expenses. It was explained that various state commissions have chosen various disallowance amounts. Some states have disallowed 100 percent of EEI dues; others have disallowed within the 25 to 33 percent disallowance range recommended by the NARUC staff subcommittee on accounts. Accordingly, in this docket, the Staff recommended a conservative 25 percent disallowance. Until such time as the expenditure of EEI dues is more definitively quantified between lobbying of Congress and other Federal agencies on the one hand, and other programs which are of more direct benefit to the ratepayer, the Commission believes that it is appropriate, in this docket, to disallow 33 percent of the EEI dues payment requested by Public Service. Accordingly, we shall make a negative adjustment in the amount of \$67,052 which is 33 percent of the test year ratemaking dues requested by Public Service for payments made to EEI.

D. Comanche Turbine Generator Overhaul

Staff witness Summers proposed the disallowance of \$106,675 of operating expenses associated with the turbine-generator overhaul at Public Service's Comanche generating unit. In November of 1981, Public Service issued a request for bids regarding the turbine overhaul at Comanche which was scheduled to be performed in early 1982. Six companies submitted bids in response to this request. Public Service awarded the contract to Stearns-Roger Engineering Corporation (Stearns-Roger) of Denver on February 8, 1982. The Public Service contract with Stearns-Roger was a cost plus contract which had no upper dollar limit and no penalty for failure to complete the project in a timely fashion. With a cost-plus contract, the contractor could be tempted to increase the project cost since his profit is a flat percentage of all costs. Public

Service's rejection of the other bids which were all firm price proposals, some of which had bonus/penalty clauses, and its acceptance of the Stearns-Roger cost-plus bid was contrary to its own bid request which stated, "a fixed price is preferred."

Public Service evaluated only the two lowest bidders, Foster-Wheeler and Stearns-Roger. Foster-Wheeler was rejected because of its perceived low man-hour estimate, lack of experience on Westinghouse machines and the fact that it had never performed a major labor contract for Public Service. There was no indication that the other firms could not have done the job.

In Exhibit 77, Mr. Summers calculated the margins associated with each bid. The margins should cover the costs which are incurred by the company such as office and field overhead, tools, rigging and expendable supplies, out-of-pocket expenditures, other expenses, and profit. In Mr. Summers's opinion, the Stearns-Roger margin of 14 percent stated in its bid was unrealistically low, when compared to the other bidders' margins of 30 percent to 60 percent. In fact, Stearns-Roger was paid a margin of 53 percent. Also, in Mr. Summers opinion, the Stearns-Roger estimated labor man-hour costs of \$24.821 per hour was unrealistically lower than the other bidders' man-hour costs which ranged from \$26.901 per hour to \$42.727 per hour. It would appear that both the Stearns-Roger margin and the estimated labor man-hour costs tended to show that Stearns-Roger may have attempted to underbid the project.

It also appears that Public Service was less than diligent in its administration of the Stearns-Roger contract. The Comanche unit was taken out of service on March 12, 1982 for the turbine overhaul and maintenance work on the boiler. The work was scheduled for completion on April 24, 1982. However, the unit was not actually returned to service until May 12, 1982.

The steam turbine generator inspection report (Exhibit 74) indicates that Stearns-Roger did not perform the job in a satisfactory manner. According to the report, the contractor had difficulty in the disassembly of the turbine generator, mistakenly began to disassemble portions of the turbine generator, dropped parts and tools into the turbine, and had difficulty in the use of the tools. Even Public Service's manager of regional production stated that the job was "poorly planned and poorly executed." (Exhibit 73)

An audit by the Staff of the Commission disclosed that Stearns-Roger's home office personnel billed in excess of 700 man hours to the Comanche turbine overhaul compared to the 20 man-hours estimated in the bid proposal. Public Service allowed the final project cost to overrun the original estimate by \$377,215. Based upon these considerations, Staff witness Summers recommended disallowance of \$106,675 as a ratpayer expense which is the difference between the highest firm price bid and the final cost of the overhaul.

On cross-examination, Mr. Summers indicated that Public Service had not provided him with any documentation which would make him question whether the other firm price bidders, other than Foster-Wheeler, were qualified to perform the overhaul. Accordingly, intervenor Sisneros has suggested that Mr. Summers' recommendation, which bases the adjustment on the highest firm price bid of the qualified bidders rather than on the lowest firm price bid among qualified bidders, shifts the risk of imprudent choice of bidders from the Company to the ratpayers. Intervenor Sisneros contends that the record in this docket indicates that Public Service had a firm price from Babcock-Wilson of \$380,129 and that there is no evidence in the record to support a rejection of that bid by the Company. Accordingly, intervenor Sisneros submits that the proper adjustment in this case should be \$289,726, which is the difference between the price paid of \$669,855 and the Babcock-Wilson bid of \$380,129.

On cross-examination of Mr. Summers, it was brought out that \$51,000 was spent on non-destructive testing which was outside of the scope of the bid request. We agree with intervenor Sisneros that the ultimate adjustment which should be made is between the ultimate cost and the lowest firm price bid, rather than the ultimate cost and the highest firm price bid. However, we believe that the \$51,000 which was spent on non-destructive testing, which was the outside the scope of the bid request, must be deducted from the ultimate price paid. Accordingly, the Commission adopts an adjustment in the amount of \$228,726 (\$669,855 - \$51,000 = \$618,855 - \$380,129 equals \$228,726).

E. Computation of AFUDC Rate of Return

The Cities proposed that AFUDC, for pro forma ratemaking purposes, be computed at the authorized rate of return in this docket. Cities witness Dirmeier testified that failure to adjust AFUDC income, where the rate of return is lower than the rate of return authorized in the past proceeding, will result in Public Service underearning on its CWIP balances after the test year.

In determining how to treat CWIP, the Commission must balance the interests of the ratepayers with those of the investors who have supplied the funds for such construction. The investors are required to supply the funds for construction and to pay the associated costs necessary to finance that construction during the construction period. The investors are entitled to earn a return on the funds committed for those purposes. The ratepayers, however, do not receive the direct benefits of new construction until the property is placed in service. Therefore, the argument is made that the ratepayers should not be required to provide the investor a return on the construction dollars advanced by the investors to finance the construction until the construction is placed in service.

In order to allow the Company an opportunity to earn a return on funds invested for construction work and at the same time defer payment by the ratepayers of that return until such time as the plant is in service, an accounting entry is made on the books and records of the Company.

The accounting entry takes into account the associated costs of financing the construction incurred during the construction period by including AFUDC in CWIP. This increases the size of the investment upon which the Company can earn a return and recover depreciation costs in the future as the construction work is placed into service.

To prevent the investor from earning a current return on the construction costs supplied by them, another accounting entry is made to credit AFUDC to the income statement. The net effect of the two reciprocal accounting entries is, to a substantial degree, to defer recovery of a return on the construction dollars provided by the investor until the plant is placed into service. It should be noted, however, that to the extent the rate of return authorized for the utility is in excess of the rate at which AFUDC is charged to construction; to the extent that capitalization of AFUDC is delayed on a booking basis; to the extent that AFUDC is not capitalized on small construction work; and to the extent that AFUDC is not capitalized on previously accrued AFUDC, there is an imbalance or slippage which in fact requires current ratepayers to pay some return on the investor-provided construction dollars for future plant. The fact that a return on a portion of the needed construction expenditures advanced by the investor is being paid for by current customers enhances the cash flow position and resulting financial strength of the utility, and may result in lower financing costs to all ratepayers, current and future. It also results in a lower value for the total investment moved into rate base upon which ratepayers will pay a rate of return at the time that the plant is placed into service.

The balance of the return on construction dollars advanced by the investor arising from the indicated accounting entries is borne by future ratepayers who will benefit from the plant being constructed.

In accordance with Commission policy, Public Service has applied the last authorized rate of return to the AFUDC "add back" rather than applying the newly authorized rate of return, whether it is higher or lower than the last authorized rate of return. When a new rate of return on rate base is authorized, as it will be by this decision and order, Public Service will use the new rate of return on rate base as the correct rate to be applied to the AFUDC add back from the effective date of this decision forward. Mr. Dirmeier testified in Public Service's last rate case on behalf of AMAX, Inc., in which he also advocated that the AFUDC rate of return be tied to the new rate of return, rather than the last rate of return, a position which he has reiterated in this proceeding on behalf of the Cities. The Commission is not persuaded that it should deviate from its traditional policy which has been articulated above, and which has been applied to CNIP, although, in this proceeding, unlike previous proceedings, utilizing the newly authorized rate of return would result in a somewhat higher revenue requirement.

F. Interest Expense Synchronization

The synchronization of interest expense was again an issue of controversy in this docket. Although Public Service proposed a year end rate base for revenue requirement purposes, the Company computed its interest expense on the basis of an average rate base. This methodology generally has the effect of decreasing the interest deduction for income tax purposes, which in turn, decreases net operating earnings and leads to a larger revenue requirement. The Cities suggested that the interest expense be synchronized with whatever rate base (year end or average) was adopted by the Commission in this proceeding. Cities witness Dirmeier contended that ratepayers should not be required to contribute revenues to the Company on the basis of a year end revenue requirement when the Company does not provide the ratepayers with the full benefit of the interest deduction by calculating the same on the basis of an average rate base. In short, the Cities contends that this inherent mismatch is one sided in favor of the Company.

Both Public Service witness Midwinter and Staff witness Steele - used average rate base multiplied by the composite cost of debt. We agree with Public Service and the Staff in this regard since the use of year end rate base clearly is an attrition alleviating allowance and is not used on any pretext that in so doing one appropriately matches revenues, expenses and investment. In determining the interest annualization, one is interested in the match between the average investment and the tax deductibility of the interest expense incurred in connection with that average investment. Thus it is clearly appropriate to use average rate base for interest annualization purposes even though year-end rate base is used for revenue requirements purposes. The Commission would reiterate that our treatment of the interest expense synchronization is the same as we adopted in I&S 1525.

G. Normalization of Electric Sales

Cities witness Dirmeier proposed to increase test period revenues by the incremental revenue attributable to an additional 251,000,000 kilowatt hours (kwh) which Mr. Dirmeier claimed would bring commercial and industrial sales to a normal level. Public Service witness Midwinter testified on rebuttal that the incremental revenue should be measured by deducting from the incremental rate the base fuel cost of 1.821 cents per kwh, which reflects the minimum cost incurred by Public Service in making additional sales. Such an adjustment would be in the neighborhood of \$500,000 rather than the \$5.7 million recommended by Mr. Dirmeier. In any event, the Commission is not convinced, at this time, that any significant or useful purpose would be served by the economic (as opposed to weather) normalization of electric sales, unless there are wide swings in electric sales caused by unusual circumstances that are not likely to be repeated.

H. Tax Treatment of Contributions in Aid of Construction.

Cities witness Dirmeier recommended that contributions in aid of construction be excluded from Public Service's pro forma income tax

computation. In addition, Mr. Dirmeier recommended the inclusion in rate base of deferred taxes that result from this adjustment as an increase in the balance on which Public Service is granted the opportunity to earn a rate of return. Mr. Dirmeier's objection to Public Service's approach is that the Company, by inclusion of the \$9.7 million of contributions in taxable income, produced a \$9.2 million increase in revenue requirements. According to Mr. Dirmeier, Public Service's proposal would allow it to collect a \$9.7 million contribution in aid of construction from ratepayers and then an additional \$9.2 million in revenue requirements because of tax treatment of the collection.

During the test period, Public Service received approximately \$9.7 million of contributions in aid of construction. Public Service has in fact paid income taxes on \$5.4 million of that \$9.7 million amount. As to the remaining \$4.3 million, Public Service is taking the stance with the Internal Revenue Service (IRS) that that amount is not taxable (although the IRS is making an issue of this nationally). Public Service is accruing taxes on its books for the \$4.3 million and is treating the amount as taxable for ratemaking purposes in the event that, if it is not successful with its case with the Internal Revenue Service on this issue, it will have the tax dollars available to pay the IRS. We agree that it is certainly appropriate for Public Service to include for ratemaking purposes the taxes actually paid on the \$5.4 million. We also believe that in order to protect itself in the event it is unsuccessful as to the \$4.3 million, the inclusion of taxes on that amount is also proper.

... If Public Service does prevail in its tax dispute with the IRS and the item is deemed non-taxable, Public Service has agreed to make an adjustment to its accrual for income taxes which will benefit the then current ratepayers, most of whom will be the same as today's ratepayers. In any event, the Commission recognizes that it is impossible to have a perfect match between generations of ratepayers where tax questions are not yet settled.

The Cities claim that Public Service's tax treatment approach on contributions in aid of construction requires ratepayers to contribute \$18.9 million as opposed to the \$2.5 million first year revenue requirement for an asset that the Company might have built itself. The \$18.9 million presumably is arrived at by adding the \$9.7 million contribution to the \$9.2 million income tax revenue requirement. Those ratepayers involved in the former are, of course, significantly different from those involved in the latter, i.e., the ratpayer making the contribution is not necessarily the same ratpayer paying the taxes. In any event, Cities' witness Dirmeier acknowledged that the revenue requirements over the life of an asset built by the Company with a contribution would be less than the revenue requirements of a similar asset built without a contribution.

Also, what Mr. Dirmeier has done, of course, is to advocate certain selective normalization of the book-tax timing differences in those instances that result in reduced revenue requirements. However, as most of the parties are aware, the Commission has not adopted comprehensive normalization of book-tax timing differences. Since Mr. Dirmeier's proposal with regard to the tax effect of personnel benefits is, in effect, selective normalization which only runs in one direction, it will not be adopted by the Commission.

I. Treatment of Tax Expense for Fort St. Vrain Decommissioning Costs

Cities' witness Dirmeier also proposed adjustments related to the appropriate treatment of tax expense for Fort St. Vrain decommissioning costs. With regard to this expense, Public Service currently is claiming a tax deduction on its income tax returns for decommissioning costs. Cities' witness Dirmeier contends that in computing its pro forma taxable income, Public Service does not pass on that benefit to the ratepayers through a tax deduction for its decommissioning expense. Mr. Dirmeier

claims that the effect of Public Service's ratemaking treatment is to charge customers twice for decommissioning expense. In other words, according to Mr. Dirmeier, ratepayers are charged the direct increase in expense for decommissioning of \$769,000 for the test year in addition to taxes because the expense is not deducted for pro forma tax purposes, leading to an increase in revenue requirements of \$1,499,000. Mr. Dirmeier further recommended an adjustment to deal with Public Service's similar treatment of this tax expense in the past. He recommended that excess amounts collected in the past, due to failure properly to reflect these tax expenses, be amortized to customers over two years and that the unamortized excess be included as a rate base deduction in this docket. This recommendation would increase operating income by \$228,000 and reduce rate base by \$227,000.

The Commission finds that the issue raised with respect to the Fort St. Vrain test period decommissioning expense is analogous to the \$4.3 million portion of contributions in aid of construction discussed above. Furthermore, with respect to the prior period recommendation, Mr. Dirmeier acknowledged that over time the ratepayers will not be charged through Public Service's rates more than the appropriate amount of taxes related to the decommissioning expense. In the meantime, of course, Public Service may actually have to pay the taxes in the event that it fails to sustain its position with the IRS. Accordingly, we will not adopt the Cities' proposal in this regard.

J. Adjustment for Personnel Benefits

Cities' witness Mr. Dirmeier recommended another book-tax timing adjustment similar to that recommended for Fort St. Vrain decommissioning expense for personnel benefits. In this docket, \$431,000 of Public Service's proposed increase in personnel benefits costs of \$2,407,000 are capitalized for book purposes and deducted currently by Public Service for tax purposes. Because of this current deduction, Mr. Dirmeier recommended that this deduction appropriately be reflected in a deduction of \$431,000

for pro forma tax purposes, effectively decreasing tax expense by \$210,000. Once again as previously discussed in the contributions in aid of construction section earlier, Mr. Dirmeyer's proposed adjustment is a one-sided normalization issue and should not be allowed.

K. Tax Effect on the Gain of Sale of Property

Public Service included in operating income a benefit due to property that was sold at a capital gain. Although Public Service gave capital gains treatment to this gain for actual tax purposes, for pro forma tax computations, the Company treated the gain as ordinary income. Because ordinary income tax rates exceed capital gains tax rates, the impact of this treatment is to overstate pro forma tax expense and revenue requirements. Cities witness Dirmeyer recommended an adjustment to reduce the tax expense and revenue requirements by the excess taxes included by the Company. The effect of this adjustment would be to increase electric net operating earnings by \$26,000 and gas net operating earnings by \$22,000. Public Service agreed that this adjustment was proper. The adjustment will be adopted.

L. Summary of Effect of Changes in Expense Adjustments on Net

Operating Earnings.

In summary, the Commission makes the following operating expense adjustments to the Public Service requests in the following amounts:

Electric Department

Expense Adjustments

Comanche Turbine Generator Overhaul	\$(-228,726)
Advertising Expenses	(11,225)
EEL Media Advertising Program	(47,239)
EEL Dues	(67,052)
Additional Federal Income Tax Expense on Interest Adjustment ⁹	198,454
Federal Income Tax other than Interest Adjustment	154,804
Capital Gains Adjustment	(26,000)
Additional State Income Tax Expense on Interest Adjustment ⁹	22,706
State Income Tax Other than Interest Adjustment	<u>17,712</u>
Total of Expense Adjustments	\$ 13,434
Change in Net Operating Revenue	(13,434)
Plus:	
Change in AFUDC Offset Associated with Rate Base Changes	3,167,956
Less:	
Additional Changes to FERC Jurisdictional Net Operating earnings due to the Above Changes	<u>213,246</u>
Total Change to Net Operating Earnings	<u>\$2,941,276</u>

⁹Changes in proforma expenses and working capital previously approved by the Commission leads to corresponding changes in the long-term interest deductions for income tax purposes. The taxes have been computed based upon a \$454,128 reduction in interest expense.

Gas Department

Expense Adjustments

Advertising Expenses	\$ (4,573)
Additional Federal Income Tax Expense on Interest Adjustment ¹⁰	148,055
Federal Income Tax other than Interest Adjustment	1,998
Capital Gains Adjustment	(22,000)
Additional State Income Tax Expense on Interest Adjustment ¹⁰	16,940
State Income Tax other than Interest Adjustment	229
Total of Expenses Adjustments	\$ 140,649
Change in Net Operating Revenue	\$ (140,649)
Total Change to Net Operating Earnings	<u>\$ (140,649)</u>

Steam Department

Expense Adjustments

Additional Federal Income Tax ¹¹ Expense on Interest Adjustment	\$ (1,682)
Additional State Income Tax ¹¹ Expense on Interest Adjustment	<u>(192)</u>
Total of Expense Adjustments	\$ (1,874)
Change in Net Operating Revenue	<u>1,874</u>
Total Change to Net Operating Earnings	<u>\$ 1,874</u>

¹⁰See footnote⁹ on Electric Department for explanation:
Long-term interest expense change, \$(338,798)
for gas department

¹¹See footnote ⁹ on Electric Department for explanation
Long-term interest expense change for steam department \$3,850

M. Summary of Earnings Deficiencies in Revenue Requirement

In view of the foregoing discussion with respect to certain proposed operating adjustments, we state and find that the earnings deficiencies, based upon the test year, are as follows:

	Electric	Gas	Steam	Total
	\$	\$	\$	\$
Authorized Net Operating Earnings	168,916,863	26,353,264	962,510	196,232,637
Actual Net Operating Earnings for the Test Period	<u>147,307,264</u>	<u>17,480,743</u>	<u>400,733</u>	<u>165,188,740</u>
Net Operating Earnings Deficiencies	<u>21,609,599</u>	<u>8,872,521</u>	<u>561,777</u>	<u>31,043,897</u>

Income tax requirements make it necessary to increase each dollar net operating earnings a composite factor of 1.95140352^{12} . Accordingly, a total increase of \$42,169,071 in retail electric revenues and a total increase of \$17,313,872 in retail gas revenues and a total increase of \$1,096,227 in steam revenues are required to recover the above deficiencies. The total revenue requirement increase for electric, gas and steam departments is \$60,579,170.

¹² Electric Factor to Gross Revenue	1.9514046
Gas Factor to Gross Revenue	1.9514039
Steam Factor to Gross Revenue	1.9513561

The standard factor to gross revenue for each department of 1.949318 has been modified to compensate for the simultaneous effect of the revenue deficiency taxes on cash working and interest expense synchronization.

The rates and charges proposed by Public Service in its tariffs accompanying Advice Letter No. 900-Electric, Advice Letter No. 375-Gas, and Advice Letter No. 33-Steam, as later adjusted on the record, under investigation herein would, under test year conditions, produce additional electric revenues of \$95,427,755 annually, additional gas revenues of \$26,432,688 annually, and additional steam revenues of \$1,358,135 annually. To the extent the revenue produced by such rates and charges would exceed the revenue requirements as found above, such rates and charges are found to be not just and reasonable.

VIII.

SPECIAL COMMENTS

A. Attrition

Public Service has requested that its authorized rate of return on rate base be increased by one percent to partially compensate for the effects of attrition. Attrition is usually defined as the difference between the rate of return authorized by a regulatory body and the rate of return actually earned by the utility. Public Service witness Ranniger acknowledged that some causes of attrition are within the control of the utility's management while some of the causes of attrition are outside the control of management. The text utilized by Public Service witness Bumpus in preparing his direct testimony on the issue of attrition indicates that inflation, current cost of facilities at higher levels than embedded cost of facilities, and current costs of capital at higher levels than embedded costs of capital, are some of the factors which may cause attrition which are beyond the control of management.

In this proceeding, Public Service has requested an attrition adjustment which would increase its overall cost of capital by one percent. In other words, rather than the 10.71 percent rate of return on rate base derived by Public Service witness Bumpus through his cost of capital analysis, Public Service seeks an 11.71 percent rate of return on the rate base.¹³

¹³This is the third time that Public Service has sought an attrition allowance from this Commission. In I&S Docket No. 1425, Public Service requested a similar 1 percent across-the-board increase. In Public Service's last rate case, I&S Docket No. 1525, Public Service requested a 1.1 percent attrition allowance. Both requests were rejected by the Commission. See Decision No. C80-2346, December 12, 1980 in I&S Docket No. 1425 and Decision No. C81-1999, dated December 1, 1981, in I&S Docket No. 1525.

The one percent attrition allowance requested by Public Service amounts to approximately \$37.5 million dollars of the additional annual revenue sought by the Company in this docket. Thus, 30.4 percent of the \$123.2 million requested by the Company is attributable to the Company's proposed attrition allowance.

Public Service has acknowledged that this Commission in the past has taken a number of positive steps to help address attrition. In Decision No. C81-1999, in I&S Docket No. 1525, the Commission discussed the effects of year-end rate base, interim rate relief in I&S Docket No. 1330, emergency rate relief in I&S Docket No. 1420, the electric cost adjustment (ECA) and gas cost adjustment (GCA) clauses, a partially projected test year in I&S 1425 and a current test year in I&S 1525. Despite these adjustments, however, Public Service contends that it suffered rate base attrition amounting to 2.29 percent on a pro forma basis for the twelve months' period ended March 31, 1983. Furthermore, Public Service contends that a comparison of the rates of return on rate base authorized versus the rate of return experienced for the first four full calendar quarters after rates went into effect for each of its rate cases since 1976 reveals that the average attrition throughout the entire time period has been 1.69 percent. Public Service acknowledges that the recent impact of attrition has been somewhat alleviated by lower inflation, reduced construction expenditures and minimal external financing. However, it contends that even if the 1.1 percent attrition allowance sought by it in I&S Docket 1525 had been allowed when a current test year was adopted, the Company would not have earned the 15.7 percent allowed return on equity during the following twelve months. In addition, Public Service refers to the fact that the test period in this docket is more antiquated than the test period in I&S 1525 and further, that the requested attrition allowance is lower than the actual attrition which the Company has experienced in the past.

The Staff of the Commission and all intervenors opposed the request for a lump sum attrition adjustment. Both FEA witness Marshall and

Cities witness Madan contended that an across-the-board attrition allowance is not justified, that the more appropriate procedure to deal with attrition is to address specific problems rather than assuming, on an across-the-board basis, and that what has occurred in the past will not necessarily occur in the future. Staff witness Jorgensen recognized that an attrition allowance primarily compensates the utility for expenses which arise after the test year, which post-test year expenses theoretically could be justified by specific out-of-period adjustments. However, as Mr. Jorgensen recognized, for the Commission to compensate the Company for out-of-period expenses without defining in hard numbers what the expenses are precludes the Commission from evaluating whether such expenses are proper.

During the time frames following I&S 1425 and I&S 1525, factors contributing to attrition were much more severe than they are now. For example, in the year following the order in I&S 1425, there was a 10.1 percent increase in rate base caused primarily by the addition to rate base of the Pawnee I Generating Plant. The inflation rate was 10.4 percent. There were substantial new bond and preferred stock issuances. In the time frame following the order in I&S Docket No. 1525, the inflation rate was 6.1 percent and there was additional attrition due to the failure of Public Service to include one-half year depreciation and a full year's operation and maintenance expenses relating to the Pawnee I Generating Plant in its revenue requirements.

Unlike the years following the orders in I&S 1425 and I&S 1525, the year following the order in I&S Docket 1640 is not anticipated to have inflation rates anywhere near the levels that they were following I&S 1425 and I&S 1525. Furthermore, no major debt or preferred stock issuances are anticipated by Public Service and there is no anticipated exclusion of expenses relating to a major generating facility in the test year revenue requirements such as there was by virtue of the failure to fully consider expenses relating to Pawnee I in I&S 1525.

Furthermore, as indicated above, the Commission in the past has not been indifferent to the problem of attrition and has utilized a number of regulatory mechanisms to partially offset this attrition. Such mechanisms have included year-end rate base, interim rate relief in both I&S 1330 and in the instant docket in the amount of \$43,000,000, ECA and GCA clauses and partially projected or current test years.

Considering all these mechanisms in use, it would be anomalous for this Commission to accept a proposed lump sum attrition allowance during a period of time in which the attrition factors are less severe than they were in the past. The Commission has addressed attrition on an issue-specific basis in the past. We believe that this is the best means of doing so in the future as well. Accordingly, Public Service's proposal for a one percent attrition allowance in this docket will not be adopted, nor is an attrition allowance likely to be adopted in future cases unless warranted by greatly changed economic conditions.

B. Fort St. Vrain Incentive

In addition to the ratemaking issues addressed in this docket, there also was the continuing question about the performance of the Fort St. Vrain generating facility.

In I&S 1425, intervenors Concerned Citizens and the Colorado Office of Consumer Services contended that Fort St. Vrain should be excluded from rate base and that the recovery of associated operating expenses be disallowed. Public Service and the Staff of the Commission took the contrary position that Fort St. Vrain should be continued as a part of Public Service's rate base. Fort St. Vrain began to be earned on commencing with I&S 1420 (May 27, 1980). The Commission in I&S 1425 in Decision No. C80-2346, dated December 12, 1980 at pages 25-33 discussed the Fort St. Vrain situation. In the course of its discussion concerning Fort St. Vrain, the Commission stated its intention, from January 1, 1983 forward, to compare the cost of producing power at Fort St. Vrain to the

cost of fossil generated power in the Public Service system and/or the cost of purchased power. The Commission then stated that if the cost of producing power at Fort St. Vrain were to exceed the fossil generated power costs and/or the cost of purchased power, some or all of the differential might be disallowed as a ratepayer expense in future proceedings.

On August 15, 1983, the Staff of the Commission filed a motion in Application No. 32603 for an order which would amend Decision No. C80-1592. The purpose of the Staff motion was to propose a procedure to be followed in the monthly electric cost adjustment (ECA) proceedings in Application No. 32603 which would allow an incentive for the efficient operation of Fort St. Vrain. At the present time, the Staff's Motion in Application No. 32603 is under advisement by a hearing examiner of the Commission and no order has yet been issued. Because the issues involved relate to base rates, the Staff repeated its proposal in this docket. Rather than relitigate this issue in I&S 1640, however, the parties have agreed to incorporate the record of Application No. 32603 as it relates to the Fort St. Vrain matter into this docket.

The Staff's proposal ostensibly is to provide a mechanism for implementing the Commission's stated intention to disallow some or all of the difference between the cost of producing power at Fort St. Vrain and the cost of alternative sources of power. Although these are not the types of costs anticipated for ECA adjustments, apparently the Staff hopes to provide a continuously adjusted incentive and thus it had proposed the ECA mechanism as the form for carrying out its proposal. Briefly, the Staff proposal would operate in the following manner: First, the revenue requirement associated with Fort St. Vrain would be determined based upon information presented in the most recent general rate proceeding. Second, the actual output for Fort St. Vrain would be determined on a rolling twelve-month basis and would be valued as if it had been produced by an independent power producer. If the established revenue requirement exceeds the latter valuation, then one-twelfth of the excess would be adjusted

in the monthly ECA. If the latter evaluation is more than the former revenue requirement amount, then no adjustment would be made. The revenue requirement amount associated with Fort St. Vrain would be updated in each general rate proceeding, and the independent power producer rate would be updated to coincide with the rate Public Service currently was paying independent power producers.

Mr. Ronald Binz, testified on behalf of intervenor Belcher in Application No. 32503, and proposed, as an alternative, that disallowances be based on the difference between the total production cost of Fort St. Vrain and the average total production cost of Public Service's fossil-fueled base load units. Thus, the principal difference between the Staff proposal and Mr. Binz's proposal is that Mr. Binz would compare Fort St. Vrain's cost to the cost of other baseload generation rather than to the cost of power produced by independent power producers. At this time, as indicated above, the Staff's Motion for a Fort St. Vrain incentive plan to be implemented through the ECA and the alternative proposal by Mr. Binz, are under advisement in Application No. 32503 before a hearing examiner. Accordingly, it would be inappropriate for the Commission, in this decision, to make any comments with regard to the merits of the Staff's Motion or Mr. Binz's proposal in Application No. 32503. However, the Commission will establish, in this docket, a revenue requirement associated with Fort St. Vrain which, in essence, is doing nothing more than particularizing the revenue requirement associated with a specified part of Public Service's overall generation facilities. Based upon the evidence of record in this docket, we find that the revenue requirement associated with the Fort St. Vrain generating facility is \$46,071,976.

It should be understood that in establishing the foregoing revenue requirement associated with Fort St. Vrain, the Commission is not making any statement regarding the merits of the Staff's Motion for a Fort St. Vrain Incentive Plan or Mr. Binz's proposal in Application No. 32503. That issue, of course, will be reviewed by the Commission in due course.

IX.

CONCLUSION

Although filed as a "make whole" case, the instant proceeding nevertheless has been a complex one in which a wide variety of issues, some old and some new, have been raised by various parties. To the extent that issues have been raised by parties which are not addressed specifically in this Decision, the Commission states and finds that the particular treatment advanced with respect thereto by one or more of the parties does not merit adoption by the Commission in this docket. Having found that Public Service is entitled to an overall revenue increase in the amount of \$60,579,170, we conclude that the tariffs filed by Public Service on November 18, 1983, pursuant to its Advice Letter No. 900-Electric, Advice Letter No. 375-Gas, and Advice Letter No. 33-Steam, which would produce revenues in an excess of the revenue increase filed herein found necessary, should be suspended permanently. We further conclude that the revenue increase found herein should be implemented by tariffs which increase present rates by across-the-board percentage increases subject to possible refund in the event reconsideration is granted in whole or in part. We further conclude that the rates portion of the decision herein should be a final decision and subject to the provisions of CRS 40-6-114 and 40-6-115. We further conclude that the docket herein should be continued for the purpose of entering into hearings on Phase II, or spread-of-the-rates issues.

An appropriate Order will be entered.

D R D E R

THE COMMISSION ORDERS THAT:

1. The tariff sheets filed by Public Service Company of Colorado, pursuant to Advice Letter No. 900-Electric, dated November 18, 1983, and filed on November 18, 1983 are permanently suspended.

2. The tariff sheets filed by Public Service Company of Colorado pursuant to Advice Letter No. 375-Gas, dated November 18, 1983, and filed on November 18, 1983 are permanently suspended.

3. The tariff sheets filed by Public Service Company of Colorado, pursuant to Advice Letter No. 33-Steam, dated November 18, 1983, and filed on November 18, 1983 are permanently suspended.

4. Public Service Company of Colorado is authorized to file appropriate tariff sheets to reflect a general rate schedule adjustment in the total amount of 5.51 percent and applicable to all electric base rate schedules. This general rate schedule adjustment shall not apply to charges determined by the electric cost adjustment provision of Colorado PUC No. 6-Electric tariff sheet No. 140C. The general rate schedule adjustment shall indicate that the same is subject to refund with interest, in whole or in part, as a result of any order or orders issued by this Commission subsequent to the effective date of said general electric rate schedule adjustment. Public Service Company of Colorado, simultaneously with the filing of the tariff sheets herein authorized by this ordering paragraph, shall file a cancellation of the tariff sheet heretofore filed with Advice Letter No. 899-Electric by Public Service Company of Colorado on November 18, 1983, and which became effective on December 18, 1983. The cancellation tariff shall refer to this decision number.

5. Public Service Company of Colorado is authorized to file appropriate tariff sheets to reflect a general rate schedule adjustment in the total amount of 3.12 percent and applicable to all gas base rate schedules. The general rate schedule adjustment shall not apply to charges determined by the gas cost adjustment provision of Colorado PUC No. 5-Gas tariff sheet No. 130C. The general rate schedule adjustment shall indicate therein that the same is subject to refund with interest, in whole or in part, as a result of any order or orders issued by this Commission subsequent to the effective date of said general gas rate schedule adjustment. Public Service Company of Colorado simultaneously

with the filing of the tariff sheet herein authorized by this ordering paragraph shall file a cancellation of the tariff sheet heretofore filed with Advice Letter No. 374-Gas by Public Service Company of Colorado on November 18, 1983, and which became effective on December 18, 1983. The cancellation tariff shall refer to this decision number.

6. Public Service Company of Colorado is authorized to file appropriate tariff sheets to reflect a general rate schedule adjustment in the total amount of 17.90 percent and applicable to all steam base rate schedules. The general rate schedule adjustment shall not apply to charges determined by the fuel clause associated with Colorado PUC No. 1-Steam tariff Sheet Nos. 4 and 5. The general rate schedule adjustment shall indicate that the same is subject to refund with interest, in whole or in part, as a result of any order or orders issued by this Commission subsequent to the effective date of said general steam rate schedule adjustment. Public Service Company of Colorado simultaneously with the filing of the tariff sheets herein authorized by this ordering paragraph shall file a cancellation of the tariff sheet heretofore filed with Advice Letter No. 32-Steam by Public Service Company of Colorado on November 18, 1983, and which became effective on December 18, 1983. The cancellation tariff shall refer to this decision number.

7. The tariffs filed by Public Service Company of Colorado pursuant to Ordering Paragraphs 4, 5 and 6 above shall set forth an effective date no earlier than one day subsequent to the effective date of this decision, and shall make reference to this decision number.

8. The Motion to Strike, filed on April 13, 1984, by the City and County of Denver and the Cities of Littleton, Commerce City, Boulder, Aurora and Brighton is granted in part and denied in part. The Commission will strike any reference in tables 1, 2 and 3 attached to the Reply Brief of Public Service Company of Colorado which contains Commission decisions not reflected in Exhibit No. 18. And, in accordance with the Cities' alternative request in its Motion, the

Commission will take official notice of the decision of the New Jersey Board of Public Utilities in the Public Service Electric and Gas Company case [Docket No. 837-620,04930-83 (3-16-84)] which was attached to the Reply Statement of Position of the Cities. In all other respects the Cities' Motion to Strike is denied.

9. Any motion which is pending is denied.

10. Motions, if any, relating to attorneys fees and expert witness fee shall be filed with complete time and charges documentation on or before June 22, 1984. Such motions will be subject to such disposition as the Commission subsequently may order.

11. Public Service Company of Colorado shall file with the Commission, on or before August 27, 1984, ten copies of all its prepared written direct testimony and supporting exhibits with respect to Phase II (spread of the rates) in this Docket.

12. All parties in this proceeding, except Public Service Company of Colorado, shall complete all requests for discovery, with respect to Phase II, on or before September 17, 1984, and discovery with respect to Phase II is to be completed on or before October 17, 1984.

13. The Staff of the Commission and each intervenor who wishes to present direct testimony in Phase II (spread of the rates) of the Docket herein shall file with the Commission, on or before November 16, 1984, ten copies of its prepared written direct testimony and supporting exhibits with respect to Phase II.

✓ 14. All parties in this proceeding shall complete all requests for discovery related to rebuttal or surrebuttal, with respect to Phase II, on or before November 26, 1984, and all responses to all said discovery requests shall be completed on or before December 17, 1984.

15. Any Motion seeking permission to file cross-rebuttal testimony and exhibits, filed by the Staff of the Commission or any intervenor, shall be filed on or before December 17, 1984. All responses to any Motion seeking permission to file cross-rebuttal testimony shall be responded to on or before December 27, 1984.

16. Public Service Company of Colorado shall file with the Commission, on or before January 15, 1984, ten copies of all its prepared written rebuttal testimony and supporting exhibits with respect to Phase II (spread of the rates), if any, in this docket.

17. The Staff of the Commission and each intervenor who wishes to present surrebuttal testimony in Phase II (spread of the rates) of the docket herein shall file with the Commission on or before January 29, 1984 ten copies of its prepared written surrebuttal testimony and supporting exhibits with respect to Phase II.

18. All parties who desire to file written testimony and supporting exhibits in response to cross-rebuttal testimony and exhibits shall do so by filing the same in ten copies with the Commission on or before January 29, 1984.

19. Any person or party, including the Staff of the Commission, responsible for filing with the Commission written or direct testimony and exhibits shall mail or deliver copies of the same to all parties of record in this proceeding and to the Chief of Fixed Utilities Section of the Public Utilities Commission. The Staff of the Commission is not required to mail or deliver copies of the same to the Chief of the Fixed Utilities Section.

20. Any procedural motions shall be heard by a Hearings Examiner at 9:00 A.M. on the following dates: October 26, 1984, December 28, 1984, January 22, 1985 and February 8, 1985.

21. Each party in Phase II of this docket shall file with this Commission on or before February 18, 1985, a statement of all issues to be determined by the Commission, a list of all witnesses to be called by the party with a proposed order of presentation, a summary of their testimony and a list of all exhibits to be filed by the party. Each party in Phase II of this docket shall mail or deliver copies of the same to all parties of record in this proceeding and to the Chief of Fixed Utilities Section of the Public Utilities Commission. The Staff of the Commission is not required to mail or deliver copies of the same to the Chief of the Fixed Utilities Section.

22. The parties are strongly encouraged to settle issues. To the extent that any one or more issues with respect to Phase II have been settled by the parties, parties shall file a written stipulation setting forth such settlement with the Commission on or before February 15, 1985, setting forth the terms of such settlement.

23. Phase II of this docket is set for a pre-hearing conference for the purpose of delimiting the issues, and clarifying any pending procedural matters, as follows:

DATE: February 22, 1985
TIME: 10:00 A.M.
PLACE: Hearing Room
Office Level 2
Logan Tower
1580 Logan Street
Denver, Colorado 80203

The parties should be prepared at this conference to identify and discuss their issues, witnesses' testimony, and the amount of cross-examination they contemplate of adverse witnesses.

24. Phase II of this matter is set for hearing for the purpose of summarizing all prefiled written testimony and the cross-examination of all witnesses who have filed the same, unless otherwise ordered by the Commission; commencing with witnesses of Public Service Company of Colorado and continuing with witnesses for the Staff of the Commission and intervenors, as follows:

DATE: March 6, 1985
TIME: 10:00 A.M.
PLACE: Hearing Room
Office Level 2
Logan Tower
1580 Logan Street
Denver, Colorado 80203

The dates of March 7, 8, 13, 14, 15, 21, 22 and 23, 1985 shall be reserved on the Commission calendar for hearing if necessary.

25. Statements of Position with respect to the substantive issues in Phase II (together with proposed findings of fact and conclusions of law) shall be filed by the parties with the Commission on or before April

12, 1985. Reply statements of position on an optional basis, shall be filed on or before April 22, 1985.

26. Each party who files any testimony and exhibits shall concurrently file a copy of all work papers used in preparation of the same. If said work papers are too voluminous, then they shall be made available for inspection by any other party during normal working hours.

27. The procedural directives herein may be modified, as appropriate, by subsequent Order or Orders of the Commission.

28. Further procedural directives or modifications thereto will be issued, as appropriate, by subsequent Order or Orders of the Commission.

29. The Decision and Order herein, with the exceptions of Ordering Paragraphs 11 through 28 and Ordering Paragraph 30 herein shall be considered a final decision subject to the procedural provisions of CRS 40-6-114 and 40-6-115.

30. The twenty (20) day time period provided for pursuant to CRS 40-6-114(1) within which to file an application for rehearing, reargument, or reconsideration shall commence to run on the first day following the mailing or serving by the Commission of the decision herein.

31. This Order shall be effective forthwith.

DONE IN OPEN MEETING the 22nd day of May, 1984.



ATTEST: A TRUE COPY

Harry A. Sullivan, Jr.
Harry A. Sullivan, Jr.
Executive Secretary

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

EDYTHE S. MILLER

ANDRA SCHMIDT

RONALD L. LEHR

Commissioners

js:01073/JEA

EXHIBITS

No.	<u>Title and Description</u>
1.	Public Service Company of Colorado (PSCo) Rate Base, 12 Months Ended March 31, 1983 - Electric. (RRM)
2.	PSCo Net Operating Earnings, 12 Months Ended March 31, 1983 - Electric. (RRM)
3.	PSCo Determination of Make Whole Revenue Requirements, 12 Months Ended March 31, 1983. (RRM)
4.	PSCo Return on Equity, Earnings Per Share, Dividend Yield, Payout Ratio, Capital Structure, Fixed Charge Coverage, Market/Book Ratio, and Dividends Per Share/Book Value, 1972, September 1983. (JNB)
5.	PSCo Criteria for Selecting Companies with Financial Risk Similar to that of Public Service Company of Colorado. (JNB)
6.	PSCo Companies Used for Comparative Purposes to PSCo Return on Equity, Consolidated Earnings Per Share, Dividend Yield, Payout Ratio, Capital Structure, Fixed Charge Coverage, Market/Book Ratio, and Dividends Per Share/Book Value, 1973-1982. (JNB)
7.	PSCo Cost of Long-Term Debt & Ratio of Earnings to Fixed Charges (SEC Method), December 31, 1973 - September 30, 1983. (JNB)
8.	PSCo Debt Capital, March 31, 1983
9.	PSCo Cost of Preferred Stock & Ratio of Earnings to Fixed Charges and Preferred Stock (SEC Method), December 31, 1973 - September 30, 1983. (JNB)
10.	PSCo Preferred Stock Capital, March 31, 1983. (JNB)
11.	PSCo Cost of Equity Capital, Gordon Growth Model. (JNB)
12.	Derivation of Refined DCF Model. (JNB)
13.	Comparison of Models in Exhibit 11 and Exhibit 12. (JNB)
14.	Dividend Growth Rates. (JNB)
15.	PSCo 16-Week Cost of Equity Capital Through January 27, 1984. (JNB)

Exhibits

Appendix A
Decision No. CB4-598
I&S Docket No. 1640
Phase I

<u>No.</u>	<u>Title and Description</u>
16.	Refined DCF Method Average Cost of Equity Capital for 16 Weeks Ended January 27, 1984. (JNB)
17.	Expected Equity Market Returns and Risk Premiums (JNB)
18.	PSCo Utility Decisions, January - September 1983. (JNB)
19.	PSCo Calculation of Attrition, 1977-1982. (JNB)
20.	PSCo Combined Departments Net Operating Earnings - Make Whole, 12 Months Ended March 31, 1983. (JNB)
21.	PSCo Earnings Available for Common and Year End Return on Equity on an Actual and Adjusted (13.9% Return on Equity) Basis, 1975-1983. (JNB)
22.	PSCo Cost of Capital, March 31, 1983. (JNB)
23.	PSCo Advertising Exhibit. (RRM)
24.	Pro Forma Consumption, 12 Months Ended March 31, 1983.
25.	PSCo Consumption
26.	AFUDC Blackboard Diagram
27.	PSCo Estimated Capital Expenditures.
28.	PSCo Lead-lag Study for 12 Months Ended March 31, 1983
29.	PSCo Other Additions and Deductions Revised Make Whole, 12 Months Ended March 31, 1983.
30.	Fort St. Vrain Decommissioning Costs
31.	PSCo Cost of Capital March 31, 1983 Make Whole
32.	PSCo Adjustment to Annualize Pension Plan Expense at 1983 Level, 12 Months Ended March 31, 1983.
33.	KWH Sales by Revenue Class, 12 Months Ended March 31, 1983.
34.	PSCo Electric Department Operating Ratios
35.	Third Response to Cities.

Exhibits

Appendix A
Decision No. C84-598
I&S Docket No. 1540
Phase I

<u>No.</u>	<u>Title and Description</u>
36.	PSCo 1983 Salaries of Officers and Managers.
37.	PSCo Financial & Operating Report, December 1981.
38.	PSCo Financial & Operating Report, March 1983
39.	Financial & Operating Report, November 1983
40.	PSCo Advertising Worksheet, Category 7- Conservation
41.	PSCo Comparison of Electric Employees Per 1000 Electric Customers.
42.	Additions to Plant In-Service.
43.	<u>Update</u> , "Winter Heating Assistance is Available Through PSCo", December, 1982
44.	James N. Bumpus' Speech to Boston Security Analysts, Boston/Hartford, June 14-15, 1983
45.	Electric Utility Rankings, November 1983
46.	PSCo Statistical Information, October 10, 1983.
47.	Calculation of Dividend Yield August 19, 1983 to December 2, 1983, 16 Week Average
48.	Response to Cities Motion of December 30, 1983, Item 7f
49.	FEA Interrogatory No. 1, Attachment FEA-22.
50.	PSCo Rate of Return Report Per Books Unadjusted, 12 Months Ended December 31, 1981
51.	PSCo Rate of Return Report Per Books Unadjusted, 12 Months Ended December 31, 1982
52.	PSCo Capital Structure & Rate of Return, March 31, 1983. (ELJ)
53.	PSCo, Electric Department, Net Operating Earnings, Using Year-End Rate Bases, 12 Months Ended March 31, 1983. (WAS)
54.	Correction to Exhibit 53.
55.	Letter from Edison Electric Institute to NARUC Officials dated November 21, 1983.
56.	Disallowance of Association Dues

Exhibits

Appendix A
Decision No. C84-598
I&S Docket No. 1640
Phase I

<u>No.</u>	<u>Title and Description</u>
57.	PSCo Lead Lag Study, 1982. (RLE)
58.	A Revenue Dollar: Whose Dollar is it? (RLE)
59.	Staff Cash Working Capital Requirement. (RLE)
60.	PSCo Electric Department Rate Base, 12 months ended March 31, 1983. (DLW)
61.	PSCo Determination of Revenue Requirements, 12 Months Ended March 31, 1983. (DLW)
62.	PSCo Letter of D.D. Hock to Thomas C. King.
63.	PSCo Letter of Franklyn W. Roitsch, P.E. (No date). (JMS)
64.	Proposal of Stearns-Roger for PSCo Comanche Unit #2 Turbine-Generator Scheduled Inspection, dated December 23, 1981. (JMS)
65.	Firm Price Quotation of Westinghouse Electric Corporation dated December 22, 1981. (JMS)
66.	Letter to PSCo from James W. Malone of Babcock & Wilcox, dated December 22, 1981. (JMS)
67.	Letter to PSCo from Frederick N. Espenship of C-E Power Systems, dated December 22, 1981. (JMS)
68.	Letter to PSCo from R. C. Cuny of Foster Wheeler Energy Corporation, dated December 22, 1981. (JMS)
69.	Letter to PSCo from Earl Sury of Western Power Service and Construction Company, Inc., dated December 8, 1981. (JMS)
70.	Letter to PSCo from F. L. Weigand of Stearns-Roger, dated January 20, 1982. (JMS)
71.	PSCo Indepartmental Memo from Patrick W. McCarter re: Comanche No. 2 Turbine Overhaul, dated February 8, 1982. (JMS)
72.	PSCo Memo from O.R. Lee of PSCo to Stearns-Roger, dated February 8, 1982. (JMS)
73.	PSCo Memo of Patrick W. McCarter to Stearns-Roger, dated November 23, 1982. (JMS)
74.	Steam Turbine Generator Inspection Report. (JMS)
75.	Letter to PSCo from J. J. Donovan of Stearns-Roger, dated December 20, 1982. (JMS)

Exhibits

Appendix A
Decision No. C34-598
I&S Docket No. 1640
Phase I

<u>No.</u>	<u>Title and Description</u>
76.	Hourly Payroll Cost; Contract Comparison. (JMS)
77.	Comanche Turbine Overhaul; Contract Comparison. (JMS)
78.	PSCo Electric Department Elimination of F.S.V /Pro Forma Rate Base, 12 Months Ended March 31, 1983. (WLW)
79.	PSCo Revenue Deficiency - Per USEA
80.	PSCo Cash Working Capital Requirement - Electric.
81.	Response to Cities' Discovery Request
82.	PSCo Net Original Cost Rate Base.
83.	Total Electric - Impact of adjustments on revenue requirement (hand penciled table)
84.	Stolnitz, Answer of PSCo Interrogatory No. 8 to FEA
85.	1984 Comparison of Cost of Capital Analysis
86.	PSCo 16-Week Cost of Equity Capital Through January 27, 1984.
87.	George J. Stolnitz - Summary of Qualifications; Schedules.
88.	Collection of Articles.
89.	Weekly Bond Yields from S&P Outlook.
90.	Michael D. Dirmeier's Exhibit - Schedules 1-168.
91.	PSCo Operating Income Impact & Treatment of Unbilled Revenues.
92.	PSCo Working Capital Impact of Unbilled Revenues
93.	Part of Testimony of Jamshed K. Madan in I&S Docket No. 1525.
94.	PSCo Working Capital, Schedules 5 - 6.
95.	PSCo Lead Lag Study - 1982. (RCK)
96.	PSCo Electric Department Rate Base - Net Original Cost - Make Whole, 12 Months Ended December 31, 1983.

Exhibits

Appendix A
Decision No. CB4-598
I&S Docket No. 1640
Phase I

<u>No.</u>	<u>Title and Description</u>
97.	Letter to PSCo from Nuclear Regulatory Commission w/attachments, dated July 12, 1979.
98.	Present Value of \$5 to be Received at the End of December Each Year. (10% Discount Rate Per Year Assumed) (JNB)
99.	Present Value of \$1.25 to be Received at the End of Each Quarter of Each Year (10% Discount Rate Per Year Assumed) (JNB)
100.	Present Value of \$1.25 to be Received at the End of Each Quarter of Each Year (10.38% Discount Rate Per Year Assumed) (JNB)
101.	Recomputed Staff Comparable Groups and Recommended for Ranges. (JNB).
102.	Staff Recommended ROE. (JNB)
103.	Functions of the Edison Electric Institute
104.	Edison Electric Institute, Legislation of Interest, 1983
105.	Priority 1983 Legislative Issues Supported by the 18% of EEI Resources in Broad Support of Legislative Activities.
106.	Resolution Adopted by the National Association of Regulatory Utility Commissioners (NARUC).
107.	Resolution Supporting Congressional Legislation, sponsored by Electricity Committee of NARUC, adopted November 16, 1983.
108.	"Quality Assurance Program Requirements for Nuclear Facilities", published by The American Society of Mechanical Engineer.
109.	PSCo Steam-Electric Generating Plant Statistics (Large Plants).
110.	Merrill Lynch's "Quantitative Analysis", November/December 1983.
111.	Edison Electric Institute Actual 1983 Dollars Collected or Spent Relationship with Separately Funded Organizations (late filed).

E X H I B I T S

PHASE I

<u>No.</u>	<u>Title and Description</u>
A.	Direct Testimony of J. H. Ranniger
B.	Direct Testimony of R. R. Midwinter
C.	Direct Testimony of J. N. Bumpus
D.	Direct Testimony of Eric L. Jorgensen
E.	Direct Testimony of William A. Steele
F.	Direct Testimony of Robert L. Ekland
G.	Direct Testimony of Dianne L. Wells
H.	Direct Testimony of James M. Summers
I.	Direct Testimony of Warren L. Wendling
J.	Direct Testimony of Robert L. Marshall
K.	Direct Testimony of Marcus Matityahu
L.	Direct Testimony of George J. Stolnitz
M.	Direct Testimony of Jamshed K. Madan
N.	Direct Testimony of Michael D. Dirmeier
O.	Rebuttal Testimony of R. C. Kelly
P.	Rebuttal Testimony Richard R. Midwinter
Q.	Rebuttal Testimony J. H. Ranniger
R.	Rebuttal Testimony of D. D. Hock
S.	Rebuttal Testimony of James N. Bumpus
T.	Rebuttal Testimony of Douglas C. Bauer

History of Public Service Adjustment Clauses

The Commission in 1977 investigated the Gas Cost Adjustment (GCA) and the Fuel Cost Adjustment (FCA) clauses in Cases No. 5721 and No. 5700, respectively. On April 5, 1978, the Commission in Decision No. C78-414 entered a decision which, in essence, continued the use of GCA and PGA clauses (with a procedural modification for an annual hearing) so as to reflect the delivered price of pipeline and wellhead gas, including charges for gathering, compression and transportation. The Commission also required annual GCA or PGA reports to be filed by the utilities, followed by an investigative hearing to encompass present and projected market requirements for gas service, and projected supplies of gas available to meet those requirements, and current or projected curtailment of service as a result of inadequate supplies, the gas purchase practices of the utilities as they affect the success of the utilities in obtaining adequate supplies of gas at reasonable prices, and any other subject that the Commission may wish to investigate. Certain technical modifications to Decision No. C78-414 were made pursuant to an errata notice dated April 7, 1978, Decision No. C78-583, dated May 2, 1978, an errata notice dated May 4, 1978, and Decision No. C78-741, dated May 30, 1978. By Decision No. C79-941, dated June 19, 1979, in Application No. 31896, the Commission changed the annual review requirement for Public Service to a quarterly review requirement. A GCA hearing for the period April 5, 1978 - December 31, 1978 and calendar year 1979 was heard on March 6, 1980 and resulted in Decision No. R80-1062 dated May 30, 1980. Said decision was remanded by the Commission to Examiner Trumbull by Decision No. C80-1553. Decision No. R80-1710 was subsequently entered September 2, 1980.

A more specific methodology hearing based on the third and fourth quarters of 1979 was held on February 14, 1980 in Application No. 31896 with Decision No. C80-1327 being entered therein on July 1, 1980. An errata notice was entered July 8, 1980.

Application for rehearing was filed to said Decision No. C80-1327 and subsequently denied by Decision No. C80-1495 entered July 29, 1980. Thereafter, quarterly reports were filed by Public Service and accepted by Decision No. R80-1542 entered on August 8, 1980 and Decision No. R80-2087 entered on November 5, 1980.

As a result of hearings in 1981 and 1982, the Company was ordered in C82-1413 dated September 7, 1982 to make certain adjustment to Account No. 164 (gas stored) and adopt the LIFO accounting method.

In Application No. 34815, as approved by Decision No. R82-1406, also dated September 7, 1982, a revised methodology was adopted which basically returns to annual normalized volumes with an over/under recovery mechanism (Account 191) and allows for an interest offset.

On September 13, 1977, the Commission entered its Decision No. 91290 in Case 5700 dealing with the FCA tariff of Public Service. The Commission authorized the continued use of an FCA clause subject to certain modifications such as the exclusion of transportation costs, and costs associated with unloading, handling of stockpiles, fuel treatment and ash disposal. The Commission also required quarterly audits and hearings with respect to the implementation of the FCA clause. The Commission also ordered Public Service to credit against the FCA certain amounts as a result of moneys paid by Public Service to Fuel Development Resources Company during the period October 1, 1973, to November 1, 1977. Certain modifications to Decision No. 91220 were made subsequently by Decision No. 91519, dated October 20, 1977, Decision No. 91577, dated October 31, 1977, Decision No. 91868, dated December 22, 1977, Decision No. 91904, dated January 4, 1978, Decision No. C78-158 dated February 7, 1978, Decision No. C78-280, dated March 7, 1978, and Decision No. C79-432, dated March 27, 1979. Decision No. R78-746, dated June 1, 1978

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Phase I

(which became the Decision of the Commission on June 21, 1978) approved the first quarterly report filed by Public Service with regard to its FCA tariff. Subsequent Public Service Quarterly Reports have been approved by the Commission by Decisions Nos. R78-1033 (August 2, 1978), R78-1464 (November 9, 1978), R79-252 (February 26, 1979), R79-710 (May 14, 1979), R79-1150 (July 26, 1979), R79-1680 (October 26, 1979), R80-168 (January 28, 1980), R80-850 (May 2, 1980), R80-1541 (August 6, 1980) and R80-2088 (November 5, 1980). On September 23, 1980, by Decision No. C80-1817, in Application No. 32603, the Commission authorized Public Service to combine its PPA and FCA into an electric cost adjustment (ECA). By Decision No. C78-734 in Application No. 31012, entered on May 30, 1978, Public Service had been authorized to file a Purchased Power Adjustment (PPA) provision. The ECA also is the most recent mechanism used by Public Service to recover, in addition, transportation costs related to fuel, and non-firm purchased power costs. Subsequent Public Service quarterly reports, with regard to the ECA, have been approved by the Commission by Decision Nos. R81-446 (March 13, 1981) and R81-1136 (June 29, 1981).

On October 5, 1981 by Decision No. R81-1704, exception was taken to the following items in the ECA: 1. Maintenance Related Items; 2. Stores (parts and equipment); 3. Administrative Labor; 4. Trackage Rights; 5. Property Rights; 6. Depreciation and, 7. Railroad Car Lease. On February 19, 1982 by Decision No. R82-260 exception was again taken to the following items in the ECA: 1. Maintenance Related Items; 2. Stores (parts and equipment); 3. Administrative Labor; 4. Trackage Rights; 5. Property Rights; 6. Depreciation and, 7. Railroad Car Lease. Commission Decision No. R82-260 also ordered "Public Service Company of Colorado and Staff of the Commission shall present at the

hearing in regard to the quarterly reports for the fourth quarterly reporting period in 1981 recommendations regarding the coal inventory adjustment made at the Cameo plant of Public Service Company of Colorado." Decision No. R82-260 required the following changes in reporting requirements:

- "A. Pawnee Unit One shall be added to the list of plants for which plant productivity data is reported.
- 3. Trouble log data presently submitted shall be replaced with unit outage forms for those units included in the plant productivity report. Unit outage forms for all generating units shall be available for audit.
- C. Firm Purchased Power report and Non-Firm Energy Purchase Record shall be replaced by a Purchased Energy Summary. Details of firm and non-firm purchases on a daily basis shall be available for audit.
- D. The presently submitted summary of physical operations central system, shall be available for audit, however, only the summary for the last day of each month shall be submitted with the filed data.
- E. A report of scheduled maintenance shall be submitted each quarter. This report shall cover the twelve-month period subsequent to the quarter which is being audited."

Commission Decision No. C82-388 dated March 16, 1982 denied reconsideration of Decision No. R82-260.

Commission Decision No. C82-575 consolidated Decision Nos. R82-260, R82-258 and R82-259 for rehearing, reargument and reconsideration. Commission Decision No. R82-1170 ordered Public Service to adjust its transportation charges by those items set forth in Decision No. R82-260 and also to delete its inventory adjustment at the Cameo plant. Commission Decision No. R83-1337 (August 26, 1983) ordered Public Service to adjust its transportation charges by deleting \$1,096,501 from the ECA calculation. Commission Decision No. R83-1356 ordered Public Service to delete \$1,739,877 from the ECA. Commission Decision No. R84-44 (January 13, 1984) changed public hearings on the ECA from quarterly to semi-annual hearings.

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Public Service was ordered to delete its inventory adjustment of the Cameo Plant and credit to the ECA \$109,025. Interest was ordered to be credited at that rate the company was required to pay on customer deposits at the time of the over-collection.

Public Service also was ordered to delete certain purchased power costs and steam plant fuel costs in the amount of \$526,326.13 for failure of Fort St. Vrain to generate to a standard amount. Such amount was ordered to be credited to the ECA with interest at the customer deposit rate at the time of the overcollection.