(Decision No. 85830)

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

* * *

RE: INVESTIGATION AND SUSPENSION OF PROPOSED CONTRACT REVISIONS OF COLORADO-UTE ELECTRIC ASSOCIATION, INC., FILED UNDER ADVICE LETTER NO. 12.	INVESTIGATION AND SUSPENSION DOCKET NO. 885 DECISION OF THE COMMISSION

October 15, 1974

Appearances: Girts Krumins, Esq., Montrose, Colorado, and
John J. Conway, Esq., Denver, Colorado, for
Colorado-Ute Electric Association, Inc.;
Robert R. Wilson, Esq., Cortez, Colorado, for
San Miguel Power Association, Inc.;
George E. Dilts, Esq., and Clifford C. Fossom, Esq.,
Cortez, Colorado, for
Empire Electric Association, Inc.;
L. K. Christolear and Craig Merrell,
Denver, Colorado, of the
Staff of the Commission.

PROCEDURE AND RECORD

BY THE COMMISSION:

Colorado-Ute Electric Association, Inc. (hereinafter referred to either by its full corporate name or as Colorado-Ute), Respondent herein, on June 18, 1974, filed with this Commission its Advice Letter No. 12, accompanied by certain contract revisions pertaining to the following:

1. Second Revised Schedule "B" (cancels First Revised Schedule "B") to the contracts of Colorado-Ute for wholesale electric service to the following members of Colorado-Ute, respectively:

   Yampa Valley Electric Association, Inc.
   White River Electric Association, Inc.
   San Miguel Power Association, Inc.
   Empire Electric Association, Inc.
   San Luis Valley Rural Electric Cooperative, Inc.
   Southeast Colorado Power Association
   San Isabel Electric Services, Inc.
   Sangre De Cristo Electric Association, Inc.

2. Second Revised Schedule "A-1" (cancels First Revised Schedule "A-1") to the contracts of Colorado-Ute for wholesale electric service to the following members of Colorado-Ute, respectively:

Delta-Montrose Rural Power Lines Association
Grand Valley Rural Power Lines, Inc.
Holy Cross Electric Association, Inc.
La Plata Electric Association, Inc.
Gunnison County Electric Association, Inc.

The Advice Letter stated that based on sales and fuel costs during the twelve-month period ended April 30, 1974, the filing would increase the revenues of Colorado-Ute by $583,858 or an average of 6.7% (the percentage increases to Colorado-Ute's members would range from a low of 5.3% to a high of 9.9%). In addition, by this filing Colorado-Ute proposed to update and reword the fuel adjustment clause provided for in its wholesale power contracts. The proposed effective date was September 1, 1974.

Because of the important impact on members of Colorado-Ute purchasing wholesale electric service, as indicated by the protest of Empire Electric Association and San Miguel Power Association, Inc., the Commission by its Decision 85604 suspended the effective date of the contract revisions filed by Colorado-Ute in the Advice Letter No. 12 until December 30, 1974, or until further order of the Commission, and set the matter for hearing.

Empire Electric Association and San Miguel Power Association appeared at the hearing and the Commission, by oral order, designated them as parties to the proceeding. By this decision, such order is hereby confirmed and the said parties are granted leave to intervene to the extent of their respective interests.

After due and proper notice to all interested parties the matter was duly heard by the Commission beginning at 10:00 a.m., September 25, 1974, in the Commission hearing room, 1845 Sherman Street, Denver, Colorado. Messrs. O'Fallon, Higgins, McGuire, Winz, Hale, and Vold testified on behalf of Colorado-Ute. Colorado-Ute also offered Exhibits 1 through 39, all of which were admitted into evidence. The exhibits are listed as follows:

No.	Exhibit	Witness
1	Affidavit and Notice of An Increase in the Rates of Colorado-Ute Electric Association, Inc.	None
2	Colorado-Ute Electric Association Member Systems Certified Service Areas	O'Fallon
3	Colorado-Ute Electric Association System Map	O'Fallon
4	Colorado-Ute Electric Association, Inc. Demand (mw) 1966--1973	O'Fallon

5	Transmission Lines (Cost/Miles)	O'Fallon
6	Preliminary Investigation Charges Through 7-31-74	O'Fallon
7	Journeyman Lineman Hourly rates for the Years 1966 through 1974	Higgins
8	General Wage Increases Compared to Consumer Price Index (CPI) for the Years 1966 through 1974 in Percent	Higgins
9	Payroll Expense in Mills per Kilowatt-hour Sold for the Years 1966 through 1974	Higgins
10	Colorado-Ute Electric Association, Inc. Pollution Control Equipment Additions	McGuire
11	Annual Daily Load and Resource Graph Calendar Year 1973	Hale
12	Variable Production Costs by Source 12 Months Ending July 31, 1974	Hale
13	Monthly Load and Resource Duration Curve August 1973	Hale
14	1973 Annual Load & Resource Duration Curve (Net Generation)	Hale
15	Study Load & Resource Duration Curve for 57% Load Factor	Hale
16	Study Load & Resource Duration Curve for 36% Load Factor	Hale
17	Study Load and Resource Duration Curve for 79% Load Factor	Hale
18	Estimated Variable Energy Cost for Different Annual Load Factors	Hale
19	Estimated Variable Energy Cost for Different Annual Load Factors (Graph)	Hale
20	Resolution (Increased Rates)	Vold
21	Computation of Rate of Return on Average Rate Base and Pro Forma with Rate Adjustment	Vold
22	Balance Sheet & Statement of Operations July 31, 1974	Vold
23	Statement of Income and Expense with Adjustments 12 months ended 7-31-74	Vold
24	Computation of Average Rate Base - 12 months ended 7-31-74	Vold
25	Cost of Service - 12 months ended 7-31-74	Vold
26	Cost of Capital Computations - 12 months ended 7-31-74	Vold

27	Computation of Rate of Return on Average Rate Base and Times Interest Earned Ratio 12 months ended 7-31-74	Void
28	Financial Policy Statement No. 3	Void
29	Excerpt from: Supplemental Mortgage and Security Agreement	Void
30	Resolution (Dapital Credits)	Void
31	Times Interest Earned Ratio (Electric Utilities Operating in Colorado 1973)	Void
32	Projected Growth in Investment 1974-1977	Void
33	Equity Rates to be Obtained if Rate of Return as Sought is Maintained - 1974-1977	Void
34	Estimated Equity, Rate of Return, and Rate Increase Requirements at Various TIER Levels 1974--1977	Void
35	Computation of Interest Coverage at 4.89% Rate of Return	Void
36	Excerpt from: Supplement dated as of September 18, 1973, to Supplemental Mortgage and Security Agreement	Void
37	Margins to be Produced by Filed Rates	Void
38	Comparison of Cost per kwh at Various Levels of Usage, Present and Proposed Rates	Void
39	Comparison of Revenues, Present and Proposed Rates, 12 months ended 7-31-74	Void

Mr. Johnson testified on behalf of Empire Electric Association, Intervenor, and sponsored the following exhibits, all of which were admitted into evidence:

No.	Exhibit
40	Colorado-Ute Electric Energy Revenue May 1973 through April 1974
41	Monthly Demand - Colorado-Ute Members (KILOWATTS)
42	Monthly Megawatt Hours - Colorado-Ute Members
43	Empire Electric Assn., Inc. - Monthly Demands - 12 months ending April 1974
44	Rate of Low Monthly Maximum Demands to High Monthly Maximum Demands - Colorado-Ute Electric Member Systems - 12 months ending April 30, 1974
45	Colorado-Ute Electric Assn., Inc. and Member Systems Annual Load Factors - 12 Months ended April 30, 1974
46	Rate Curves - Load Factor %

47 Colorado-Ute Member Systems - Purchased Power - Mills/KWH - 12 months ending April 30, 1974

48 Average Cost of Purchased Power - Period Ending April 30, 1974 - Proposed Rate "A-1"

49 Average Cost of Purchased Power - Period Ending April 30, 1974 - Proposed Rate "B"

50 Power Factor Example

Neither San Miguel Power Association nor the Commission Staff offered any testimony or exhibits. At the conclusion of the hearing the matter was taken under advisement by the Commission.

FINDINGS OF FACT

From the entire record herein the Commission finds as fact that:

1. Colorado-Ute is a public utility engaged in a business of purchase, generation and transmission of electric power and energy for sale at wholesale. It is a Colorado corporation organized as a cooperative association and has fifteen members. Colorado-Ute's intrastate operations within the State of Colorado are subject to the jurisdiction of the Commission.

2. The proceeding herein involves the wholesale power rates of Colorado-Ute to its thirteen members within the State of Colorado as follows:

Delta-Montrose Rural Power Lines Association
Empire Electric Association, Inc.
Grand Valley Rural Power Lines, Inc.
Gunnison County Electric Association, Inc.
Holy Cross Electric Association, Inc.
La Plata Electric Association, Inc.
San Isabel Electric Services, Inc.
San Luis Valley Rural Electric Cooperative, Inc.
San Miguel Power Association, Inc.
Sangre De Cristo Electric Association, Inc.
Southeast Colorado Power Association
White River Electric Association, Inc.
Yampa Valley Electric Association, Inc.

3. The proper test year for the determination of the reasonableness of its wholesale power rates in the State of Colorado is the twelve months ended July 31, 1974, with proper adjustments as listed in the findings below.

4. Besides wholesale power and energy sales to its thirteen Colorado members, Colorado-Ute also provides certain services to its member in Arizona, the Salt River Project, and makes certain surplus

energy sales from time to time. Accordingly, an appropriate allocation of revenue expenses and rate base must be made in this proceeding to determine amounts applicable to Colorado-Ute sales to its thirteen Colorado members only. No service is provided at present to Bridger Valley Electric Association, Colorado-Ute's remaining member, which operates in portions of the States of Wyoming and Utah.

5. The proper test year for determination of rates in this proceeding is the twelve month period ended July 31, 1974, which was the latest period for which data were available at the time this proceeding was instituted. (Note: This does not, of course, preclude the consideration of otherwise relevant evidence with respect to other periods.

6. Colorado-Ute provides wholesale electric power service to its members throughout a wide geographic area, extending throughout Western and Southern Colorado. To accomplish this, it has been necessary to construct an extensive network of transmission lines as well as make various wheeling and displacement arrangements with neighboring utilities. A beneficial aspect of such geographic dispersion is the resulting wide diversity among member system loads.

Because of such diversity, substantial efficiencies on the utilization of Colorado-Ute's power supply system are experienced. During the period May 1973 through April 1974, eight of the thirteen systems had their peak loads in the month of January; one in February; two in July; one in August; and one in December.

7. Colorado-Ute's member system loads have been increasing at a rapid rate. During the period 1966--1973, the compound rate of increase was slightly in excess of 10% annually. Such load increases have required a rapid expansion of Colorado-Ute's facilities at construction costs that are substantially higher than embedded costs. As an example, as of January 1, 1973, the average cost per mile of all 115 kv transmission lines constructed by Colorado-Ute was less than $15,000, while 115 kv lines constructed in 1973 and 1974 have averaged in excess of $32,000 per mile. These Cost increases are due primarily to increases in the cost of materials and rights-of-way. For example, aluminum conductor that cost 28¢ per pound in 1972 and early 1973 currently is quoted for 61¢ to 64¢ per pound. Right-of-way costs which averaged about $700 per mile prior to 1973, have increased tenfold to $7,000 per mile.

8. Colorado-Ute's labor costs have also shown substantial increases. The journeyman lineman hourly rate has risen from $.364 in 1966 to $6.57 currently. Wages and salaries for other classifications would show a similar trend. Colorado-Ute's wage and salary schedules are necessarily based upon competitive factors. In addition, the current wage rates for operation and maintenance employees are established pursuant to a collective bargaining agreement negotiated with Local 111 of the International Brotherhood of Electrical Workers. This labor union has been certified as the bargaining agent by the National Labor Relations Board pursuant to an election held in early 1974.

9. Pursuant to the said collective bargaining agreement executed on August 9, 1974, Colorado-Ute granted a 3% wage increase retroactive to June 2, 1974 and an additional 8% effective September 8, 1974 for a total increase of 11.2%. Comparable increases were also granted to non-union employees. The previous general wage adjustment was made by Colorado-Ute in September 1973. The Consumer's Price Index (CPI) published by the Bureau of Labor

Statistics increased 10.8% between September 1973 and August 1974; for the full twelve-month period, the increase is estimated to exceed 11%. Colorado-Ute's general wage increases in 1973 and 1974 substantially exceeded general wage increases in previous years. This is understandable since 1973 and 1974 have been periods of uncontrolled inflation as demonstrated by increases in the CPI. Moreover, the 1974 wage increases are not related to, and will not be offset by, increases in productivity. Colorado-Ute's unit labor costs per kwh sold increased from 1.0 mills/kwh in 1972 to 1.2 mills/kwh in 1973, and further to 1.3 mills/kwh during the first six months of 1974. This increase in unit labor costs exceeds the increase in wage rates for the same period, thus indicating a complete lack of increase in productivity. The reason for this lack of increase in productivity of Colorado-Ute's employees is rather obvious. In the field of power supply, the basic cause of increased productivity is the installation of more modern, larger and more efficient generating units. Colorado-Ute has not added any such units since 1965, and its most efficient unit--Hayden 1-- is now fully utilized. The first opportunity for a productivity increase cannot be expected until additional generating capacity is added in 1976.

10. The enactment of emission regulations to control air and water pollution in 1971 has required Colorado-Ute to construct additional pollution control facilities at both Nucla and Hayden Stations. Until such facilities are placed into service, Colorado-Ute continues to operate under temporary variances. The installation of these facilities has been undertaken and pursued by Colorado-Ute with all due diligence, but it has taken time to properly engineer, design, procure and install equipment that will meet the applicable standards. To do this has required the removal and junking of the existing mechanical collectors and a cold-side electrostatic precipitator, installed when Hayden Unit 1 was initially constructed, which removed less than 90% of particulate matter from stack gasses, and did not meet the 1971 regulations. As of July 31, 1974, Colorado Ute had invested $12,397,181 in pollution control equipment still under construction. The total cost of this additional equipment is estimated to be $14,421,710. Aside from reducing pollution, the installation of this equipment will have no beneficial economic effect. The productive capacity of Colorado-Ute will be reduced by approximately 2.5 megowatts. There will be additional operation and maintenance and capital costs, without any offsetting increases in revenue or decreases in expenses.

11. In the operation and management of its business, Colorado-Ute makes extensive use of an electronic data processing (EDP) system. The EDP system is also available for use by Colorado-Ute's thirteen Colorado members, under certain conditions, without any

additional charge. The participating member must agree to provide to Colorado-Ute, in a form usable for computer processing, customer billing data which Colorado-Ute can use in developing load data. This arrangement is beneficial to Colorado-Ute as well as to its all-requirements members, and provides for a most efficient use of a sophisticated EDP system.

12. Colorado-Ute's major resources available to meet members' loads consist of the Hayden Station, Nucla Station (3 units), the total output of the Molina Hydro plants (generally known as the Collbran Project of the United States Bureau of Reclamation), and a purchase contract with Public Service Company of Colorado. Variable production costs on a test year adjusted basis vary from a low of 2.71 mills/kwh for Hayden energy to 7.19 mills/kwh for purchases from Public Service Company of Colorado after the first 5400 kwh used per kilowatt of scheduled demand per year. (The first 5400 kwh per kw of demand cost one mill less, or 6.19 mills/kwh.) The output of the Collbran Project is purchased on a take-or-pay contract; thus, on an incremental basis, it is the most economical energy. Colorado-Ute schedules these power resources in such a manner as to produce, for sale to its all-requirements members, the most economical energy possible. This means that the lowest cost energy resource is scheduled first, and the highest cost resource used only during peak periods. In addition to the resources listed, Colorado-Ute is a party to several agreements providing for interchange, pooling and banking of energy. At Colorado-Ute's present annual load factor in the 60% range, Colorado-Ute is able to maximize the use of the more economical energy resources. Accordingly, variable energy costs for Colorado-Ute are at their minimum with the existing annual load factor of the system. Thus an increase in Colorado Ute's load factor would not lower variable energy costs (fixed costs, of course, remain the same, regardless of load factor). In fact, a substantial increase in annual load factor for Colorado-Ute would increase unit costs, as a load factor in excess of 80% could not be handled without additional and redundant generating capacity. The limit of 80% occurs because of the need for periodic maintenance of generating units, as well as unscheduled outages, resulting in overall availability factors in this range.

13. This proceeding involves the rates of Colorado-Ute to its all-requirements members in the State of Colorado (sometimes referred to as the "thirteen members"), the present and proposed rates are as follows:

Schedule "A-1"
(Load Center Delivery)

	Present Monthly Rate	Proposed Monthly Rate
DEMAND CHARGE:		
Per kw of maximum demand	$ 1.46	$ 2.06
ENERGY CHARGE:		
For the first 450 kwh used per kw of billing demand, per kwh	7.6 mills	7.3 mills
For all remaining kwh used per month, per kwh	4.3 mills	7.3 mills

Schedule "B"
(Bulk Delivery)

	Present Monthly Rate	Proposed Monthly Rate
DEMAND CHARGE:		
Per kw of maximum demand	$ 1.40	$ 1.66
ENERGY CHARGE:		
For the first 450 kwh used per kw of billing demand, per kwh	6.2 mills	6.6 mills
For all remaining kwh used per month, per kwh	4.3 mills	6.6 mills

In addition, Colorado-Ute proposes to update the existing fuel adjustment clause so that any fuel escalation would be based on a weighted average cost of 21.16 cents per million Btu. For the test year, fuel escalation averaged .5 mills/kwh. This amount must be added to present energy charge if comparison is made with proposed rates, since under test year conditions, no fuel escalation would have applied under proposed rates. The proposed change in the fuel adjustment clause is just and reasonable.

14. The continuation of the sharply lower energy rate block after 450 kwh use per kw of demand, or for load factors of over approximately 61%, is not justified on a cost basis. At present, the rate in this lower block is 4.3 mills/kwh plus fuel escalation of approximately .5 mill, or a total of 4.8 mills/kwh. On a test year adjusted basis, the bare cost of producing this energy is approximately 6 mills, without any margins whatsoever. The present rate design under current conditions constitutes basically an incentive rate for high load factors. Whatever the effectiveness of such an incentive rate may be, it could not be conducive to energy conservation. Colorado-Ute's proposal of a single block in the energy portion of each rate is just and reasonable under current conditions, and not unjustly discriminatory to any of its members or ultimate consumers. The continuation of an energy block rate that is no longer cost-based, as the existing rate structure provides, is not reasonable.

15. The appropriate rate base of Colorado-Ute applicable to its thirteen member sales in this proceeding is $53,415,000 consisting of the following:

	Total	Deduct Amount Allocated to Surplus Sales	Rate Base Applicable to 13 Members
Utility Plant	$66,203,742	$4,656,723	$61,547,019
Material and Supplies	911,860	64,848	847,012
Prepayments	206,648	----	206,648
Preliminary Survey and Investigation Charges	1,474,374	----	1,474,374
Working Capital Allowance	640,982	289,314	351,668
	69,437,606	5,010,885	64,426,721
Less: Accumulated Depreciation	12,831,919	1,819,689	11,012,230
Average Rate Base	$56,605,687	$3,191,196	$53,414,491

"Utility Plant" as listed above includes average Work in Progress of approximately $20 million, or more than 1/3 of total average rate base.

16. Colorado-Ute's operating revenues for the test year amounted to a total of $11,718,925. Revenues applicable to the rates involved in this proceeding are determined as follows:

Total Operating Revenue	$11,718,925
Less: Revenue from Other Sales	2,935,487
Actual Revenue - 13 member sales	$ 8,783,438
Add: Adjustment for rate changes during the test year	289,146
Adjusted Test Year Revenue - 13 member sales	$ 9,072,584

17. Test year operating revenue deductions of Colorado-Ute, consisting of production expense, other power supply expense, transmission expense, administrative and general expense, and taxes, were $9,904,272. The operating revenue deductions applicable to the rates involved in this proceeding are determined as follows:

Total operating revenue deductions	$9,904,272
Amount Applicable to Other Sales	(2,672,832)
Operating revenue deductions Applicable to 13 Member Sales	$7,231,440
Proper Adjustments to Test Year Expenses as listed in the Finding No. 17 below	554,946
Adjusted Operating Revenue Deductions Applicable to 13 Member Sales	$7,786,386

18. The proper adjustments to test year expenses consist of the following items:

a.	General Wage Increases		
	(1) 5% on September 9, 1973	$ 11,503	
	(2) 3% on June 1, 1974 and 8% on September 7, 1974	248,237	
			$259,740
b.	Increase in fringe benefits (medical insurance)		6,003
c.	Payroll overheads on pay increase		37,610
d.	Increase in F.I.C.A. base 1974 over 1973		13,248
e.	Research and development costs effective 1-1-74		35,681
f.	To reclassify contributions		(999)
g.	Depreciation on Pollution Control Equipment included in Work in Progress at 7-31-74		
	Nucla	$163,274	
	Hayden	217,546	380,820
h.	To adjust depreciation expense to actual		(121,180)
	Total Increase		$610,923

Of the total amount, $554,946 is applicable to the thirteen member sales.

19. Interest or debt for the test year amounted to $1,490,580, of which $760,862 was charged to construction as Allowance for Funds Used in Construction, leaving a balance of $729,718 of interest expenses charged to operations. Other deductions amounted to $5,985. The total interest and other deductions are properly allocated and adjusted as follows:

Total Interest	$1,490,580
Other Deductions	5,985
Total Interest and Other Deductions for Test Year	1,496,565
Amount Applicable to Other Sales	(86,768)
Amount Applicable to 13 Member Sales	$1,409,797
Adjustment to Interest Expense to Reflect the Composit Cost of Money on 7-31-74 of 3.07%	102,735
Interest and Other Deductions, as Adjusted	$1,512,532

20. Electric operating margins on an "as adjusted" basis, applicable to thirteen member sales, amount to $1,286,198, as follows:

Adjusted Operating Revenue (Finding No. 16)	$9,072,584
Adjusted Operating Revenue Deductions (Finding No. 17)	7,786,386
Electric Operating Margins	$1,286,198

At this point it is evident that interest and other deductions on a test year adjusted basis exceed electric operating margins, which would indicate a deficit operation. However, $760,862 of interest is properly capitalized as Allowance for Funds Used in Construction. Since rate base includes Work in Progress, this allowance is added to electric operating margins for the purpose of determining rate of return. The capitalization of this portion of the interest then results in adjusted electric operating margins of $2,047,060 and operating margins of $534,528 on a test year adjusted basis. The result is a rate of return on rate base of 3.83% and a Times Interest Earned Ratio (TIER) of 1.72. The latter ratio is computed on the basis of how many times the interest expense charged to operations is earned. Total interest, including capitalized interest charged to construction, would be earned less than 1.0 times as found hereinabove. It is not necessary to consider capitalized interest in the TIER computation because the actual interest paid by Colorado-Ute on funds used to finance construction work in progress is included in the total amounts borrowed for such projects.

21. The existing wholesale power rates of Colorado-Ute to its thirteen all-requirements members would result in a deficit operation except for the fact that a portion of the interest is capitalized and not charged to expense. Such rates are insufficient and not just and reasonable.

22. The rates proposed by Colorado-Ute in this proceeding would, on a test year basis, produce additional revenues of $564,163 annually, or an increase of approximately 6.2%. Since expenses would not be affected by such increased rates, margins would also be increased by $564,163. After such a rate adjustment, the financial results, applicable to thirteen member sales, would be as follows:

Rate of Return Calculation:

Adjusted Electric Operating Margins before rate increase (includes allowance for funds used in construction)	$ 2,047,060
Rate Increase	564,163
Adjusted Electric Operating Margins after rate increase	$ 2,611,223
Average rate base	$53,414,491
Rate of Return	4.89%

TIER Calculation:

Operating Margins as adjusted before rate increase	$ 534,528
Rate Increase	564,163
Operating Margins as adjusted after rate increase	$ 1,098,691
Interest expense as adjusted (does not include interest capitalized as Allowance for Funds Used in Construction)	$ 745,685
Total of Operating Margins after rate increase and interest expense, after all adjustments	$ 1,844,376
Times Interest Earned Ratio, after rate increase ($1,844,376 ÷ $745,685)	2.47

23. A reasonable TIER considering Colorado-Ute's present circumstances is in the range of 1.5 to 3.0. This finding is made in consideration of Colorado-Ute's cooperative organization, its long-term, all-requirements wholesale power contracts with its members and its certificates of public convenience and necessity to serve such members, as well as its current financing and mortgage obligations.

24. In addition to construction work in progress at the end of the test year, Colorado-Ute has just started construction of the Craig Station of the Yampa Project, and other sizable additions to its system necessary to provide the capacity to meet the load growth of its members. It estimates that its net plant will increase from approximately $66 million at the end of 1974 to about $155 million at the end of 1977 -- a mere three years later. This indicates a need of new financing of considerable magnitude. Colorado-Ute's present sources of financing include the following:

(a) Insured loans from the Rural Electrification Administration. Some 2% money will still be available to Colorado-Ute under previously approved loans not yet drawn down; current interest rate is 5%.

(b) Long term financing from either the Federal Finance Bank or the National Rural Utilities Cooperative Finance Corporation, essentially at open market interest rates.

(c) Pollution Control Facilities may be financed by tax-free revenue bonds without any government guarantee, if interest savings are possible because of the tax-free feature.

25. Rural Electrification Administration insured and guaranteed loan financing is done under the provisions of a mortgage entered into by Colorado-Ute as Mortgagor and the United States and the National Rural Utilities Cooperative Finance Corporation as Mortgagees. The current mortgage dated October 24, 1972, was executed by Colorado-Ute pursuant to authorization of the Commission. Essentially all utility property of Colorado-Ute, now owned or hereafter acquired, is encumbered under this mortgage. The financing arrangements presently available to Colorado-Ute are generally quite favorable to Colorado-Ute, its members, and the ultimate consumer.

26. The rate of return for Colorado-Ute must be sufficient to assure confidence in the financial integrity of Colorado-Ute, so as to maintain its credit and to enable it to raise capital on reasonable terms. The most appropriate measurement for this purpose at this time is Times Interest Earned Ratio. A rate of return of 4.89% on average rate base, resulting in a TIER of 2.47 times, is reasonable, necessary, and adequate for Colorado-Ute at this time.

27. The mortgage referred to above also restricts refunds of accummulated patronage margins to Colorado-Ute's members. The restrictions are as follows:

(a) No refunds may be made unless equity equal to at least 40% of total assets remains except that refunds of up to 25% of previous year's margins may be made if equity equal to at least 20% of total assets remains.

(b) No refund may be made if after making such refund, current liabilities (including short-term borrowings) would exceed current assets.

Colorado-Ute, pursuant to staff studies, and by a resolution adopted by its Board of Directors, has requested the Mortgagees to consider the elimination of such restrictions. It is our finding that, for a generation and transmission cooperative in Colorado-Ute's situation, TIER is the best measurement of financial integrity. While the Commission is not the creditor, nor does it manage the enterprise, we do find that a cooperative must find a way to return capital credits to its members within a reasonable time. In case of a generation and transmission cooperative, such time period should ideally be no longer than the period utilized by its members for revolving their capital credits. In the case of Colorado-Ute, a revolving period of not less than five and not more than ten years is reasonable, if permitted under mortgage conditions.

28. The rates proposed by Colorado-Ute are based upon a cost of service study. All fixed costs are allocated to demand charges, and all variable costs are allocated to energy charges. Incremental costs in providing load center service, which involves the ownership, operation and maintenance of subtransmission facilities and additional substations, have been allocated to this service (Rate Schedule A-1). On this basis, each component of the proposed rates is calculated to produce its share of required margins.

29. A monthly load factor rate with a single block in the energy portion is consistent with the philosophy of encouraging conservation, rather than use of energy. Such a rate, as proposed by Colorado-Ute in this proceeding, is not unjustly discriminatory to any of Colorado-Ute's members or ultimate consumers. An annual load factor rate is not appropriate for all-requirements wholesale sales, as it would tend to unduly penalize those members with low load factors whose peak demands occur during a period that is not a peak period for the entire Colorado-Ute system. Such loads do not cause the incidence of additional costs, but may in fact, contribute to lower costs by increasing diversity. An annual load factor rate may be reasonable for partial requirements customers who are able to take advantage of monthly fluctuations by juggling purchases. A monthly load factor rate is reasonable and not unjustly discriminatory for Colorado-Ute's members at this time. (Note: The Commission is pleased that two members of Colorado-Ute appeared at the hearing in this matter to protest the "spread of the rates". One of the strengths of a cooperative association is in the differing views of an informed membership. In the instant case, the Commission has not accepted the views of the protesting members. However, it may well be that under different factual conditions that will exist as to the generating facilities of Colorado-Ute in years to come, a rate adjustment clause relative to annual load factors may be appropriate.)

30. Colorado-Ute has no current problems with a poor power factor. In the past, power factor problems on Colorado-Ute's system have been corrected by installation of appropriate equipment by the party causing the problem. Correction of a poor power factor is beneficial to both the supplier and the customer. A poor power factor is a waste of system capacity and must be corrected by appropriate equipment; it is not cured simply by imposition of a rate penalty.

DISCUSSION

The Colorado Public Utilities Commission, as a consumer protection agency, is charged with the responsibility of ensuring that consumers receive adequate utility services at just and reasonable rates. A corollary responsibility is to see that investors in utility securities are properly protected and compensated, in order that such investors will continue to be willing to provide funds for the construction of the necessary utility plant to provide service. In exercising judgment in performing these responsibilities, it is necessary for a regulatory commission to erect a regulatory framework, strong enough to provide the necessary protection but flexible enough to accommodate and to meet the differing needs of consumers, of individual utilities, and of investors.

The Colorado Commission, in past years, has demonstrated the ability to make adjustments in the regulatory framework to accommodate the needs of different types of utilities. A good example would be the utilization of comparative investor-owned utility operating ratios in determining the revenue requirements of a municipally owned utility providing service outside its corporate limits. Another example, which is directly relevant in the instant proceeding, is the application of rate of return concept, with adjustments, to rural electric cooperatives. The Commission first applied this concept to a cooperative utility in Decision 71084, Re Union Rural Electric Association, Inc., Application No. 22987 (March 26, 1968).

In the Union case, the Commission developed a method of computing a fair rate of return for a cooperative that obtains its equity capital through retention of patronage margins for a limited period of time. Basically, the Commission found that the cost of such equity capital arises from the necessity of returning it to the patrons within a specified period of time. Mathematically, it computed equity cost by dividing 100% by the number of years of the revolving period. Thus, a 10-year revolving period would result in a capital cost of 10% while a 15-year revolving period would result in a cost of 6-2/3%. In addition, the Commission found it appropriate to base the rate of return determination upon a hypothetical capital structure that would reflect the desirable rather than actual debt-equity ratios. This was necessary to enable a cooperative with a very thin equity to increase such equity to a desirable level. These principles have been adopted by the Commission in succeeding rate cases involving rural electric distribution cooperatives. In the San Luis Valley Rural Electric Cooperative, Inc. 1971 rate case, the Commission by adopting the recommended decision of an examiner (Decision No. 78921) set equity guidelines for rural electric cooperatives of 30% to 45% and the period for rotation of capital credits from 10 to 15 years. In this proceeding, it has been demonstrated that the rate of return to be produced by the proposed rates is well within a range of reasonableness when the same principles are applied. Colorado-Ute, however, proposes in this proceeding that the Commission employ a different yardstick in measuring the reasonableness of its rate of return than that which has in the past been applied to distribution cooperatives. The reason for this request relates to the use of a hypothetical capital structure. For Colorado-Ute, the use of any hypothetical capital structure is unrealistic at this time. After all, the hypothetical capital structure that is used for ratemaking purposes should bear some resemblance to what a desirable debt-equity ratio is, and should also be reasonably capable of attainment. As the evidence in this proceeding discloses, under current conditions Colorado-Ute neither expects nor needs to accumulate equity to the extent that equity would constitute a large percentage of its total capital. The financial strength of Colorado-Ute lies in its exclusive certificates of public convenience and necessity to provide wholesale service to its members, its wholesale power contracts that obligate such members to purchase all their requirements from Colorado-Ute, and its ability to earn and collect adequate revenues from such members. Accordingly, in the proceeding, the measurement of a fair and reasonable rate of return for Colorado-Ute should be made on a basis that reflects such revenue earning ability. The best financial measurement for this purpose is the Times Interest Earned Ratio. This ratio indicates the ability of the enterprise to pay its capital costs out of current revenues. Certainly, at least for Colorado-Ute, it is the most meaningful measurement of the magnitude of the capital costs that should be included in total revenue requirements for ratemaking purposes.

The TIER concept is not particularly new or startling. A discussion involving the concept as applied to investor-owned utilities is contained in an article entitled "The Future Attractiveness of Utility Bonds", by W. R. Van Liew (The O-T-C Market Chronicle, Vol. 8, No. 27, July 11, 1974, 25 Park Place, New York).

The Colorado Public Utilities Commission is already utilizing the concept, in somewhat different form, as to investor-owned electric utilities. In the recent Commission decision (No. 85724, September 24, 1974) involving a rate increase for Public Service Company of Colorado, the Commission said:

> "Witness Garrison of the Commission Staff presented a third approach which properly might be described as the 'interest coverage' approach. Mr. Garrison testified that earnings available for coverage compared to the total interest expense of the electric department resulted in a ratio of 2.53 to 1 and with respect to the gas department of 2.39 to 1. Mr. Garrison, who has a long time background in fiancial analysis, indicated that a 3.5 times coverage ratio was necessary for the electric department and a 3.52 times coverage ratio was necessary for the gas department. If the interest coverage ratio is below 1, a company cannot pay its interest. Indenture requirements, calculated on somewhat different basis, normally require that the interest coverage ratio be at least 2.5. The higher the interest coverage ratio, the lesser the risk and the easier it is for such a company to sell debt, and also its common equity. Other things being equal, the interest coverage ratio of 3.0 is about the minimum that a company must have in order to induce investors to become either bondholders or stockholders. In fact, 3.2 is a more realistic figure. It is then necessary to upwardly adjust that figure for the factor of erosion which, in the case of Public Service Company, has been rather sharp in recent years.

For example, Public Service Company's interest coverage ratio has declined 11.06% in the 3-month period of the first quarter of 1974 and an additional 8.61% in the second quarter of 1974. Taking a 3.2 interest coverage ratio and upwardly adjusting it by a comparatively conservative 10% erosion factor, gives a 3.5 interest coverage ratio for the electric department.

"Multiplying the total interest expense of $22,703,607 by 3.5 results in a figure of $79,462,624. After subtracting present available earnings from that sum, and making necessary tax factor adjustments, the total revenue increase required by the electric department using a 3.5 times interest ratio, is $22,561,707. Using the same method for the gas department with an interest coverage ratio of 3.52 (due to increased risks of the gas department), a $6,350,310 gas revenue increase would be required. The total revenue increase for both the gas and electric departments, as calculated by the interest coverage ratio deemed proper by Witness Garrison, amounts to $28,912,017. Based upon the capitalization of the Company, which we have adopted, and the net operating earnings of $81,400,643 which is obtained in determining the revenue increase of $28,912,017, Public Service Company would realize a rate of return on its year-end rate base of 8.62% and the cost of common equity would be 15.01% (Staff Exhibit No. 4, page 4 of 4; Volume X, pages 89-104).

"In summary, approaching equity return from the point of view of competition for capital funds, discounted cash flow, and Witness Garrison's interest coverage ratio concept, there is a convergence to support our finding that a rate of return on a rate base of 8.62% and a rate of return on common equity of 15% is adequate and reasonable for Public Service Company."

The TIER range indicated as reasonable in this proceeding is, of course, quite wide. It must necessarily be so, as figures from the industry indicate, because conditions vary. For Colorado-Ute, it is necessary at this time that a TIER in the higher end of the range be attained for obvious reasons: the immense construction program that is under way, and the tremendous financing task just ahead. A TIER at the lower end of this range would not currently cover Colorado-Ute's entire interest cost, because about one-half of interest costs are currently capitalized. Rates are, of course, made prospectively, and the fact that construction work in progress will soon be placed in service and applicable interest will then cease to be capitalized, must be considered.

The application of the TIER concept to Colorado-Ute under the factual situation presented to the Commission in the instant proceeding meets commission criteria that the interests of consumers must be protected, an that the interests of investors must likewise be protected, in order that consumers continue to receive utility service at just and reasonable rates.

The evidence presented in this proceeding is relevant only insofar as it relates to Colorado-Ute's wholesale power rates and their reasonableness. In determining what rates are reasonable, considerations of methods of financing and the relative costs of such financing are of paramount importance. This, however, is not a proceeding to determine how Colorado-Ute should be financed or managed per se -- nor does the Commission wish to unduly interfere in problems that are primarily matters of management. The Commission, of course, exercises no jurisdiction over investors in the securities of Colorado-Ute.

However, the fact that mortgage restrictions (Finding of Fact No. 27) may prevent the refunding of capital credits to the members of Colorado-Ute in the foreseeable future is a matter of grave concern to the Commission. This money does not belong to Coborado-Ute. This money does not belong to the members of Colorado-Ute. This money belongs to the ratepaying consumers who receive service from the rural electric distribution cooperatives who are the members of Colorado-Ute. If the TIER concept is to become a permanent regulatory took, it would appear that such restrictions would necessarily have to be eliminated or drastically modified. (Note: It would also appear that a modification might be necessary in the euqity guidelines established by the Commission for rural electric distribution cooperatives in the aforementioned San Luis decision. It is dangerous for a Commission to make a policy decision in a factual vacuum. Therefore, we make no changes in such guidelines in this decision. It would appear, however, that if the mortgage restriction (Finding of Fact No. 27) should be eliminated as to Colorado-Ute and retained as to its members, then the minimum equity required by such restriction, should be the minimum guideline for Commission policy as to the distribution electric cooperative members of Colorado-Ute.)

The Commission's findings in this proceeding should not be construed to stand for the general proposition that a G&T cooperative can operate with virtually no equity. In Colorado-Ute's specific condition, it is able to finance in this manner, provided, of course, that adequate TIER is maintained, and its creditors are assured of its financial integrity. Essential to this proposition are the specific conditions under which Colorado-Ute operates at the present time.

CONCLUSIONS OF FINDINGS OF FACT

From the Findings of Fact herein, the Commission concludes that the rates, rules and regulations proposed by Colorado-Ute Electric Association, Inc., in this proceeding are just and reasonable and not unjustly discriminatory; and the same should be, pursuant to 115-6-11(2), CRS 1963, as amended, established as the effective rates, rules and regulations as provided in the Order below.

O R D E R

THE COMMISSION ORDERS THAT:

1. The contract revisions filed by Colorado-Ute Electric Association, Inc., on June 18, 1974, under its Advice Letter No. 12, be, and hereby are, permitted to become effective on the effective date of this Order.

2. Colorado-Ute Electric Association, Inc. shall, within 30 days of the effective date of this order, file with the Commission substitute schedules containing the rates, rules, and regulations as proposed under Advice Letter No. 12, but indicating thereon the effective date and the authority under this Decision. Such filing is intended solely for record purposes and may be made without further notice, this Order being fully self-executing in all respects.

3. This Order shall be effective forthwith.

DONE IN OPEN MEETING the 15th day of October, 1974.

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

Commissioners

COMMISSIONER HENRY E. ZARLENGO ABSENT.

vjr