

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

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| IN THE MATTER OF THE INVESTIGATION ) | CASE NO. 6076               |
| OF THE SCHEDULES ACCOMPANYING )      |                             |
| ADVICE LETTER NO. 45, FILED BY )     | ORDER OF THE COMMISSION     |
| COLORADO-UTE ELECTRIC ASSOCIATION, ) | ESTABLISHING RATE STRUCTURE |
| INC. )                               |                             |

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July 26, 1983  
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Appearances: Howard S. Bjelland, Esq.,  
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Denver, Colorado, for  
the Staff of the Commission;

John E. Archibold, Esq.,  
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the Commission.

#### S T A T E M E N T

#### BY THE COMMISSION:

##### I.

#### HISTORY OF THE PROCEEDINGS

On December 15, 1981, Colorado-Ute Electric Association, Inc. (Colorado-Ute), filed with the Commission its Advice Letter No. 45. The purpose of the advice letter was to increase Colorado-Ute's annual revenues from its fourteen all-requirements members by approximately \$11,120,603, or 12.157 percent. On January 12, 1982, the Commission entered Decision No. C82-75 whereby it established Case No. 6076 for the

purpose of investigating the schedules filed by Colorado-Ute pursuant to its Advice Letter No. 45. As a result of amendments to CRS 1973, 40-3-102 and 40-6-108(1) and (2), the Commission may, at its discretion, set tariffs filed by an electric cooperative, such as Colorado-Ute, for hearing, and thereafter establish such rates, fares, tolls, rentals, charges, classifications, practices, rules, or regulations proposed, in whole or in part, or others in lieu thereof, which it finds just and reasonable. As a result of amendment to CRS 1973, 40-6-111, the Commission no longer has the authority to suspend rates filed by electric cooperative associations. However, cooperative electric associations, such as Colorado-Ute, are not exempt from the other provisions of 40-6-111.<sup>1</sup>

The following parties were granted permission to intervene: San Luis Valley Rural Electric Cooperative ("San Luis Valley") by ER No. 82-38 dated February 2, 1982; Yampa Valley Electric Association, Inc. ("Yampa Valley") by ER No. 82-52, dated February 17, 1982; Intermountain Rural Electric Association ("Intermountain") by ER No. 82-53 dated February 17, 1982; Cheryl Muhovich by ER No. 82-54 dated February 17, 1982; White River Electric Association, Inc. ("White River") by ER No. 82-55, dated February 17, 1982; San Isabel Electric Association ("San Isabel") by ER No. 82-56, dated February 17, 1982; Sangre de Cristo Electric Association, Inc. ("Sangre de Cristo") by ER No. 82-69, dated February 23, 1982; Grand Valley Rural Power Lines, Inc. ("Grand Valley") by ER No. 82-70 dated February 23, 1982; Delta-Montrose Electric Association, Inc. ("DMEA") and Holy Cross Electric Association ("Holy Cross") by Decision No. R82-292-I, dated March 12, 1982; Empire Electric Association, Inc. ("Empire"), City of Delta, Colorado, and Union Carbide

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<sup>1</sup> Senate Bill 224, which became effective July 1, 1983, authorizes distribution rural electric cooperative associations to exempt themselves from this Commission's regulatory jurisdiction (subject to certain qualifications) upon vote of the members of such rural electric cooperative association. However, generation and transmission electric cooperative associations, such as Colorado-Ute, are not exempted, or potentially exempted, by the provisions of Senate Bill 224.

Corporation by Decision No. R82-445-I, dated March 26, 1982; Western Slope Energy Research Center and Western Colorado Congress by Decision No. R82-545-I dated April 15, 1982; Shell Oil Company by ER No. 82-263 dated July 9, 1982; San Miguel Power Association ("San Miguel") by Decision No. C82-1281 dated August 17, 1982; Exxon Company, U.S.A. by Decision No. C82-1439 dated September 14, 1982. Atlantic Richfield Company and Southeast Colorado Power Association ("Southeast") were granted permission to intervene by Commission order from the bench on October 6, 1982. Western Colorado Congress and Western Slope Energy Research Center were granted permission to withdraw as intervenors by ER No. 82-422 dated November 10, 1982.

Hearings were held before the Commission on October 6, 7, 8, 25, 26, November 15 and 16, 1982. Colorado-Ute sponsored the testimony of the following witnesses in its case in chief: Mr. Girts Krumins, Mr. Gene M. Harris, Mr. Robert J. Walker and Mr. Steven M. Foss; Intervenor DMEA presented the testimony of Messrs. Armstrong, Potter and Bussing; Intervenor White River presented testimony of Mr. Holeyfield; Intervenor Grand Valley presented testimony of Mr. Letey; Intervenor Sangre de Cristo presented testimony of Mr. Knudsen; Intervenor Holy Cross presented testimony of Mr. Grange; Intervenor Yampa Valley presented testimony of Mr. Golden; Intervenor Intermountain presented testimony of Mr. Lewandowski; Intervenor San Isabel presented testimony of Mr. Wood; Intervenor Southeast presented testimony of Mr. Bailey; and Intervenor San Luis Valley presented testimony of Mr. Sheppard. Public testimony was given by Messrs. Christenson, M. J. Mitchell, Moe, Myers, Felmlee, Walton, and Gosar. In its direct case, the Staff sponsored the testimony of Dr. William Loehr, Mr. Garrett Fleming, Mr. Warren Wendling and Mr. Bruce Mitchell. Colorado-Ute called the following witnesses on rebuttal: Messrs. Krumins, Harris, Pierson and Keith. The Staff called Mr. Wendling and Mr. Mitchell on surrebuttal.<sup>2</sup> At the conclusion of the hearing, the subject matter was taken under advisement.

<sup>2</sup> A list of exhibits which were tendered and admitted is attached to this decision as Appendix A.

### Submission

The herein instant matter has been submitted to the Commission for decision. Pursuant to the provisions of the Colorado Sunshine Act of 1972, CRS 1973, 24-7-401, 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 an open meeting, the herein Decision was entered by the Commission.

## II.

### JURISDICTION

On August 27, 1982, one of the Intervenor herein, namely, Intermountain, filed a "Motion of Intermountain Rural Electric Association to Dismiss for Lack of Jurisdiction." Intermountain, in essence, stated that this Commission does not have authority over the wholesale rates of Colorado-Ute because such authority would not be a constitutionally valid application of CRS 1973, 40-3-101, et seq., (which grants this Commission jurisdiction to regulate utility rates generally) in light of the commerce clause of Article 1, Section 8 of the United States Constitution. Oral argument on Intermountain's Motion to Dismiss was held on October 8, 1982, at the conclusion of the presentation of Colorado-Ute's direct case.

The Commission will not burden the decision herein with extensive discussion of the jurisdictional issue. Suffice it to say that the Commission herein determines that it has regulatory jurisdiction over Colorado-Ute based upon the following three major propositions:

1. In Western Colorado Power Company v. Public Utilities Commission, 159 Colo. 262, 411 P.2d 785 (1966), the Colorado Supreme Court specifically held that Colorado-Ute was a "cooperative electric association" subject to the jurisdiction, control and regulation of this Commission. The Western Colorado Power case has never been modified or overruled by the Colorado Supreme Court. This Commission, in fact, has exercised regulatory jurisdiction over Colorado-Ute since 1961 when the

Colorado Public Utilities Law was amended to specifically provide that, "every cooperative electric association is a public utility . . . subject to the jurisdiction, control and regulation of the commission and to the provisions of articles 1 to 7 (of the public utilities law)."

2. In its recent consideration of Senate Bill 224, the Colorado General Assembly had occasion to consider whether or not to exempt Colorado-Ute from the jurisdiction of this Commission. As initially proposed, Colorado-Ute would have been exempted by the provisions of Senate Bill 224 from the jurisdiction of this Commission. However, as finally enacted, Senate Bill 224 specifically excluded from its operation non-profit generation and transmission electric corporations or associations. Thus, it can be concluded the Colorado General Assembly desires that this Commission's jurisdiction of Colorado-Ute be continued.

3. Finally, on May 16, 1983, in the case of Arkansas Electric Cooperative Corporation v. the Arkansas Public Service Commission, the United States Supreme Court, in a 7 to 2 decision, held that the Arkansas Public Service Commission's assertion of jurisdiction over the wholesale rates charged by the Arkansas Electric Cooperative Corporation to its members offends neither the Supremacy Clause nor the Commerce Clause of the United States Constitution. This Commission views the Arkansas case as "on all fours" with the situation involving Colorado-Ute in that the Arkansas Electric Cooperative Corporation is a customer-owned rural power cooperative, established with loan funds and technical assistance provided by the federal Rural Electrification Administration (REA) and which, like Colorado-Ute, does not provide power directly to consumers, but rather to its members who are seventeen smaller Arkansas rural power cooperatives which in turn serve the ultimate consumers. Although Arkansas Electric Cooperative Corporation is tied into an interstate "grid" arrangement with other producers, it obtains most of its energy from power plants located in Arkansas, which it wholly or partially owns, and sells most of what it generates to its member cooperatives. The basic fact pattern involving Colorado-Ute is not only substantially similar,

but almost totally so. In a vein similar to that of the United States Supreme Court in the Arkansas case, neither the Federal Power Act of 1935, nor the Rural Electrification Act in 1936, pre-empts this Commission's regulatory jurisdiction over Colorado-Ute. Likewise we find that our in-state regulation of Colorado-Ute does not interfere with or impose unconstitutional burdens on interstate commerce.

Premises considered, this Commission states and finds that Intermountain's Motion to Dismiss for Lack of Jurisdiction should be denied.

### III

#### FINANCIAL ISSUES

##### A. Expense of Energy Delivered to Western Area Power Administration (WAPA)

In its income statement, Colorado-Ute reduced its operating expenses by \$233,948, which was the value which it had assigned to energy delivered to Western Area Power Administration (WAPA) in lieu of a wheeling fee for non-members. In order to determine the proper value of energy delivered by Colorado-Ute to WAPA, the Staff reversed Colorado-Ute's adjustment of \$233,948 by adding back that amount to the operating expenses on the income statement. In his cost of service study, Staff witness Wendling then adjusted the annual kwh billed to non-member sales by adding in the energy supplied to WAPA. The resulting annual kwh are utilized in the average and excess demand methodology of the cost of service study. The Staff contends that the proper expense of the energy delivered to WAPA in lieu of a wheeling fee is included in the total expense of \$12,778,916 which the Staff's cost of service study indicated was attributable to non-member sales.

Colorado-Ute witness Harris contended that Staff witness Fleming's treatment of the \$233,948 as an additional adjustment to Colorado-Ute's cost was inappropriate in that this amount has already been expensed as a cost in the books and records of Colorado-Ute to account

555 Purchased Power, interchanged on a monthly basis as the expense was incurred. Colorado-Ute witness Harris contends that Fleming's methodology has, in fact, doubled the expense by including it again. Colorado-Ute witness Harris contended that the only treatment that would have been proper was to allocate this expense to non-member sales as a cost. The Commission states and finds that the Staff adjustment of the \$233,948 was, in fact, improper and, accordingly, we do not adopt it.

B. Interest Expense Adjustment

The Staff made an adjustment to Colorado-Ute's income statement to reduce interest expense by \$2,649,321. One component of this adjustment is a reduction of \$1,430,983 equal to the annualized interest cost by the amount of the annualized interest income on a note from Mack Fuel Supply, Inc., held by Colorado-Ute. Another component is an reduction of \$185,663 equal to the amount of the capital costs associated with the equity investment in Mack Fuel. A third component is a reduction of \$1,032,675 equal to the annualized interest cost by the amount of the annualized interest expense associated with investment for preliminary survey and investigation purposes. A final component is a reduction in annualized interest cost by \$201,883 which was made by Colorado-Ute and accepted by the Staff.

Mack Fuel Supply, Inc. is a partially owned subsidiary of Colorado-Ute engaged in the exploration and extraction of mineral resources, primarily coal. Colorado-Ute appears to agree with the Staff that neither the revenues earned nor the expenses incurred by Colorado-Ute from Mack Fuel operations should be considered for ratemaking purposes, since the operations of Mack Fuel are not those of a public utility and therefore not subject to the jurisdiction of the Commission. Colorado-Ute's members and ultimately their retail customers should not incur non-utility expenses such as interest expenses through the rates they pay.

It is necessary to eliminate all non-utility expenses in order to calculate the proper Times Interest Earned Ratio (TIER) which is used to gauge the reasonableness of revenue increases.

Colorado-Ute and the Staff agree that the interest income on a note from Mack Fuel to Colorado-Ute should be eliminated from Colorado-Ute's annualized interest cost. However, Colorado-Ute and the Staff disagree on the methodology for making that adjustment. The Staff first determined the annualized interest expense on total debt outstanding and then subtracted the annualized interest income on the note from Mack Fuel. Colorado-Ute also determined the same annualized interest expense on total debt outstanding but credited the actual interest income on the note from Mack Fuel to booked interest expense and then proceeded to add and deduct booked interest expense in deriving its adjusted annualized interest for ratemaking purposes. Colorado-Ute's methodology is incorrect for two reasons. First, the process of subtracting out and then adding back in the same booked interest income figure results in a wash and does not eliminate the Mack Fuel interest income from the adjusted interest expense. Second, the adjusted annualized interest expense must be calculated based upon the annualized interest income, and not the booked interest income, of the note from Mack Fuel. The note receivable from Mack Fuel is an asset on the balance sheet. Each asset must be supported by either liabilities such as debt or retained margins. Colorado-Ute updated its liabilities to year-end by using year-end total outstanding debt in its interest adjustment. To maintain a matching relationship, Colorado-Ute must also update its assets, including the Mack Fuel note, to year-end figures. Therefore the interest income on the Mack Fuel note which is based upon the year-end figure is annualized interest.

The Staff contends, and we agree, that the adjustment to interest expense to eliminate the capital cost supporting the equity investment in Mack Fuel is also proper for the reasons explained above. Mr. Fleming testified that as of October 31, 1981, Colorado-Ute had a

negative balance in the margin account on the balance sheet. In his opinion, if Colorado-Ute had not made the investment in Mack Fuel, the amount of debt necessary to cover negative margins would have been reduced. It is the Staff's position that debt supports the long-term investment in Mack Fuel since Colorado-Ute had no retained margins to provide cost-free funds. Even if Colorado-Ute had accumulated positive margins in excess of the investment in Mack Fuel, it is the Staff's position that an adjustment would still be necessary because it is unfair to allow non-utility investments to be made with cost-free funds while requiring utility ratepayers to pay high interest costs on debt-financed investments dedicated to utility service. Colorado-Ute witness Harris testified on rebuttal that the Staff's proposed interest adjustment for the equity investment in Mack Fuel should not be allowed. Mr. Harris' sole reason was that "Colorado-Ute has not associated or booked any interest expense for this investment on its books and records and therefore a credit adjustment as proposed by Mr. Fleming is not warranted". This statement misses the point that Colorado-Ute should have associated or booked such an interest expense (or made an adjustment for ratemaking purposes) for the reasons stated above.

Mr. Fleming also recommended that interest costs be reduced by the amount of interest costs associated with investment for preliminary survey and investigation (PS&I) purposes and that these charges be removed from rate base. It has been this Commission's practice to exclude PS&I charges from the investment base upon which a utility is allowed to earn because these investments are not used and useful in providing utility service. Mr. Fleming testified that numerous projects in the PS&I account have either been dropped from Colorado-Ute's long range plan, rejected by the Commission in a CPCN application, or have not been submitted to the Commission for a CPCN. PS&I charges can be compared to research and development costs for competitive companies. Research and development costs are not recovered by competitive companies unless they result in a marketable product, and then only after sales of

that product begin. The possibility that these expenses will never be recaptured, along with the delay between the expenditure of these costs and their recovery, necessitate that management carefully scrutinize such expenditures prior to their incurrence. No such constraints exist for Colorado-Ute if the Commission adopts Colorado-Ute's position that the interest expense for PS&I charges is a proper ratemaking expense. All risk of such expenses would be borne by the ratepayer, with no constraints on management. The position recommended by the Staff shifts the risk to management.

We also agree with the Staff that non-operating margins, except the loss on the equity investment in Mack Fuel, should be included in the calculation of Colorado-Ute's TIER and that amounts spent on sponsorships, donations, and political and civic activities should be removed from operating deductions. The Staff pro forma income statement for fourteen member operations is shown in the last column of Exhibit 45, Schedule 2, page 1. The Staff pro forma year-end rate base for fourteen member operations is shown in the last column of Exhibit 45, Schedule 3, page 1.

#### C. Times Interest Earned Ratio (TIER)

The Staff has recommended that the Commission approve the total revenue increase requested by Colorado-Ute herein. During the case, the Staff's calculation of the adjusted TIER achieved by Colorado-Ute on its member sales for the test year was .93. The requested revenue increase, as originally calculated by the Staff, would produce a TIER of 1.30. However, as a result of our not adopting Staff witness Fleming's adjustment to operating expenses with regard to energy delivered to WAPA, the recalculated TIER would be 1.31. We find that this TIER is reasonable under current circumstances and will provide Colorado-Ute with a margin of safety in meeting its indenture requirements.

The use of TIER to establish revenue requirements is primarily a function of utility liabilities. The determination of revenue requirements for other regulated utilities is primarily a function of utility

assets. If TIER is used to determine revenue requirements, then the assets supported by debt should always be reviewed. The non-utility assets should be identified and the cost of debt supporting these assets should be eliminated from the TIER calculation. The failure to do this places the burden of supporting non-utility investments on the ratepayers.

In the past, this Commission has found that a TIER of 1.92 was reasonable for Colorado-Ute. We now believe that the 1.92 TIER should no longer be considered the benchmark for future decisions. A TIER which is adequate at one point in time may be either inadequate or excessive at some other time.

Mr. Fleming's Exhibit 45, Schedule 5, page 3, shows that a TIER of 1.92 applied to four different sets of circumstances for Colorado-Ute will result in operating ratios ranging from .87 in I&S Docket No. 1050 when that TIER was established to .72 if the investment in Craig 3 is classified as plant in service. The operating ratio of .87 would allow Colorado-Ute to increase expenses equal to 13 percent of revenues. The operating ratio of .72 would allow Colorado-Ute to increase expenses equal to 28 percent of revenues. The same TIER results in a rate of return on rate base of 7.04 percent in I&S Docket No. 1050 and 18.36 percent if the Craig 3 investment is included in rate base. Moreover, the regulatory climate has changed since the 1.92 TIER was established in I&S Docket No. 1050. Since that case, we have allowed Colorado-Ute to use year-end amounts in calculating the TIER and return on rate base, and regulatory lag has been significantly reduced with the passage of House Bill 1444. Because of these changed circumstances we believe that 1.92 TIER is no longer appropriate and that a reasonable TIER should be established on a case-by-case basis.

Mr. Krumins testified in Colorado-Ute's direct case, and Mr. Harris testified on rebuttal, that the Commission should establish a reasonable range for the TIER. They recommended the range of 1.5 to 3.0. Mr. Harris testified that this range was approved by Colorado-Ute's board of directors in August 1981 as a means to insure the financial

integrity of Colorado-Ute. Colorado-Ute's proposal to use a range conforms to the Staff's position that the determination of TIER requirements should provide latitude to recognize Colorado-Ute's internal and external operating environment. However, Colorado-Ute has not demonstrated that the 1.50 to 3.0 range is reasonable. None of the distribution cooperatives listed in Exhibit 45, Schedule 6, page 1, have attained a TIER of 1.50. All of these cooperatives are listed in Mr. Krumins' Exhibits 4 and amended 4 as having bonds rated in the A or AA class and therefore are viewed in a favorable light by rating agencies. In addition, Colorado-Ute has requested a revenue increase in this case which produces a TIER below the bottom of its recommended range. Thus, we do not find it necessary to announce a 1.5-3.0 TIER range for this case or future cases at this time.

#### IV.

##### COST OF SERVICE AND RATE DESIGN

It is obvious from the record that cost of service and rate design were the most hotly contested issues in this proceeding. The only cost of service study supplied in this docket was performed by the Staff of the Commission and was marked as Exhibit 58 and admitted into evidence. Colorado-Ute Electric Association did not submit a cost of service study. Colorado-Ute's President, Mr. Krumins testified that the flat energy rate is the appropriate rate design for the wholesale power which it supplies its member systems because Colorado-Ute's costs do not vary over time. Consequently, Colorado-Ute did not believe that it was necessary to file a cost of service study in the instant proceeding.

In Decision No. C81-373, issued February 24, 1981, the Commission approved the replacement of Colorado-Ute's then existing demand and energy rate schedules with rates providing for an equal and uniform energy charge per kilowatt hour to be applied to all energy purchased (Exhibit 5). The uniform or flat energy charge was designed to reflect average or per unit costs which, of necessity, include demand and

energy costs. The resulting rate charged by Colorado-Ute has been characterized in this proceeding as a "flat energy rate", an "energy-conservation rate", and "unit pricing". The flat rate structure has been in effect for all sales to the members of the Colorado-Ute system since March 1, 1981.

While there was extensive testimony regarding the costs and benefits of demand and energy rates at the retail level, the Commission finds that the scope of this proceeding was limited to a discussion of and an investigation into the justness and reasonableness of the tariffs accompanying Colorado-Ute's Advice Letter No. 45 filed with the Commission on December 15, 1981 and only those tariffs. The tariffs filed by Colorado-Ute relate only to the wholesale power rates charged by it to its members and not the rates charged by the fourteen member distribution cooperatives to their respective end-use customers. The appropriateness or non-appropriateness of employing demand and energy rates for all or some of their retail customers must be determined in proceedings specific to the involved distribution cooperative or cooperatives.<sup>3</sup> The utilization of a particular rate design at the wholesale level does not necessarily preclude the selection of a different rate design or various rate designs at the retail level for individual customer classes. The wholesale/retail distinction is significant when viewed in the context of the benefits conferred by the clarity of the price signal provided a consumer through a specific rate design.

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<sup>3</sup> However, the Commission would state that it has indicated in several orders, particularly its "generic" decision C79-1111, that it believes for particular end-use loads, such as residential and small commercial all electric space heating, a demand energy rate tracks the cost of providing service to them by the cooperative member systems. With regard to a number of rural electric distribution cooperatives, the demand-energy rate requirement is being re-examined in a consolidated hearing (Application No. 35295 and Case No. 5693) which is set to commence on August 11, 1983. Irrespective of the final outcome of those proceedings, however, we believe that it is possible for retail distribution cooperatives to provide a reasonable explanation of a demand/energy rate to their individual retail customers.

The Commission is aware of the rate designs in effect at both the wholesale and retail levels for Colorado-Ute and its member systems. Prior to March 1, 1981, Colorado-Ute sold wholesale power to its member systems via a demand and energy rate; during the same time frame, Colorado-Ute's member systems were charging their retail customers under various rate designs for different classes of service. The rate designs at the retail level included "declining block" rates, which became "two part" (customer charge and uniform energy charge) rates, "demand and energy" rates and "horsepower" rates for irrigation customers. Accordingly, as we have stated above, the selection of one form of rate design at the wholesale level does not necessarily dictate the choice of the use of the same rate form or forms at the retail level.

The Commission agrees with Colorado-Ute that an important, though not exclusive, objective of rate design is to provide a clear price signal that is understood by consumers. Since the consumers of Colorado-Ute's wholesale power are its fourteen member distribution cooperatives whose managers are knowledgeable and experienced in utility matters, a flat-energy rate is not the only rate design that is clearly understandable to Colorado-Ute's direct consumers. To the contrary, we believe that the wholesale customers of Colorado-Ute are quite capable of comprehending a demand and energy rate with a fixed customer charge as proposed by Staff in this proceeding. We agree with the testimony of Dr. Loehr in this regard. The record in this proceeding does not support the conclusion, as testified to by certain general managers of distribution systems, that Colorado-Ute's wholesale rate design must be paralleled at the retail level for each rate class.

Colorado-Ute witness Krumins contended that the unique characteristics of its system and its resource management plan produce a flat load curve which indicates that its generation costs are uniform over all levels of output. Mr. Krumins testified that Colorado-Ute does not plan or construct generating facilities to meet its annual system peak. In contrast, in Colorado-Ute's last rate case, while under oath in I&S

Docket No. 1452, Mr. Krumins advised this Commission that Colorado-Ute did build new plants to meet its system peak (Tr. Jan. 16, 1981, p. 204, II., 4-7). This also is evidenced by the review of Colorado-Ute's fourteen member systems' individual maximum demands in relation to their contribution to the system peak, as testified to by Staff witness Mitchell. In fact, the generation plant of Colorado-Ute is constructed to provide a reliable source of power whenever the members demand it. Mr. Mitchell testified that for the month of February, 1981, the peak month for the test year filed by Colorado-Ute in this proceeding, approximately ten of the members peaked during the top five percent of the peak hours of the Colorado-Ute system. The coincident nature of the member systems' peaks to Colorado-Ute's system peak is further emphasized since twelve of the fourteen member systems are winter peaking utilities. The relationship between coincidence of peaks to demand-energy rates was explained by Staff witness Loehr who concluded that in those cases involving utilities where peak demand among various loads are highly coincident, a demand-energy rate is appropriate. The Commission finds, based on the factual evidence in this record, that the Colorado-Ute members exhibit a high coincidence of demand with the Colorado-Ute system peak and that demand-energy rates are appropriate for Colorado-Ute.

In addition to the question of coincidence of peaks, the record contains a lengthy discussion of Colorado-Ute's resource management plan. As indicated above, Colorado-Ute witness Krumins contended that the combination of a flat energy rate and Colorado-Ute's resource management plan have resulted in a uniform cost per unit of output on a monthly basis, the operation of generation units at full capacity and a flat load curve. Exhibit 8, sponsored by Mr. Krumins in this proceeding, makes clear that during the test year total costs varied from 3¢/kwh in January to 4.3¢/kwh in October, a 1.3¢/kwh difference (or 43%); by 1982, the total cost varied from 3¢/kwh again in January to 4.5¢/kwh in June, a difference of 1.5¢ per kwh (or 50%). Therefore, the Commission must

conclude from Colorado-Ute's own evidence that the total cost per unit of output has varied monthly.

The question of whether or not a utility system operates its generation units at or near their expected capacity levels is one of great concern to this Commission. The Commission has maintained a consistent policy in favor of the conservation of capital (as well as the conservation of energy). As early as its so-called generic Decision No. C79-1111, the Commission emphasized the need for avoiding unnecessary construction of costly generation facilities through such efforts such as load management, rate design, power pooling and direct conservation. The testimony of Mr. Krumins on "energy conservation" as it relates to rates, and more particularly the flat-energy rate, appears to address the conservation of energy, that is fuel, and not the conservation of capital. Upon questioning by the Commission in this proceeding, Mr. Krumins admitted as much (Tr. Oct. 6, 1982, Vol. IA, p. 101). The Commission does not agree that there is a necessary and direct relationship between the conservation of energy and capital insofar as the conservation of energy in no way alters the amount of fixed plant already in service. The Commission does recognize that there is a relationship between the conservation of energy and other variable operating costs such as maintenance costs and labor costs. Exhibit 68, sponsored by Staff witness Mitchell, depicts a condition of a definite surplus of base load capacity at certain times which indicates that Colorado-Ute has not achieved uniform loading of capacity throughout the day. This condition results in an uneconomic under-utilization of capacity.

With regard to Colorado-Ute's resource management plan, we find that its effectiveness is not evident and both has contributed and has potential to continue to contribute to a growth in peak demands. The agreement between Colorado-Ute and Southern California Edison (SCE) demonstrates the problem pointedly. Exhibit 55, a letter agreement between Colorado-Ute and SCE, provides that delivery of fifty percent of

the energy sold by Colorado-Ute to SCE is to occur during the peak load hours of Colorado-Ute. This can only mean an exacerbation of load requirements at precisely the time that generation plant is most constrained. In addition, Colorado-Ute's annual system load factor has deteriorated in recent years. Staff witness Loehr testified that Colorado-Ute's system load factor, 64.1 percent in 1980, an average load factor by industry standards, had declined to 58.1 percent in 1982, for a decline of 9.3 percent. Furthermore, Dr. Loehr forecasted a continuing decline in Colorado-Ute's system load factor through 1995. According to the testimony of Staff witness Mitchell, Colorado-Ute's load curve is not flat and according to the testimony of Staff witness Wendling, Colorado-Ute has been unable to make non-member sales to fill in the valleys of its load.

The Commission accepts Colorado-Ute's contention that overall economic conditions, such as the recession and surplus energy in the region, has made it less able to sell energy to non-members so as to use its plants more efficiently. However, the Commission believes that the state of the economy both in the near and long term future as well as consumer response to economic change is imponderable at best. In any event, there was no evidence in the record to substantiate the overly optimistic assertion that economic recovery was just around the corner.

From time to time, it becomes necessary for a utility, such as Colorado-Ute, to meet its own peak demand by purchasing power from another utility, such as Public Service Company of Colorado. The record in the instant case reflects that the cost of such power, which is based on the capacity costs of base load units of the selling utility, Public Service, are as much as five times per kwh greater than the capacity costs associated with peaker units. This fact, coupled with the further fact that Colorado-Ute is unable to fill its valleys on its system, indicates that its resource management plan and associated flat energy rate are not working to the benefit of its ratepayers.

In order to improve the performance of the resource management plan, and to more fully substantiate a need for any future generation facilities, the Commission believes it will be beneficial for Colorado-Ute to investigate the implementation of a load research program. Such a program would result in enhancing the knowledge of both the Commission in rendering a decision with regard to rates, and Colorado-Ute in incorporating system load characteristics in its planning efforts. A load research program should be able to provide at a minimum a general assessment of the magnitude and impact of the demands of the various customer classes in the distribution member systems. Such an investigation should include a thorough evaluation of the feasibility of load research data transferability among member systems, as well as among other utilities as recommended in the direct testimony of Staff witness Mitchell. A copy of the feasibility study is to be filed with this Commission six months from the effective date of this order.

Since the evidence in this record indicates that Colorado-Ute's total costs of generating a kilowatt hour are not uniform over time, it follows that a flat or uniform energy rate is not cost tracking. To the contrary, a demand/energy rate provides separate and distinct recognition to the two major cost components of producing electricity: capital and fuel. The demand component recognizes the cost of plant in service necessary to meet load requirements and the demand charge is based on the member systems' share in using Colorado-Ute's plants. Staff witness Loehr testified that as much as two-thirds of Colorado-Ute's costs are capital related and that a demand charge should be part of Colorado-Ute's rate design. If the member systems are to receive accurate price signals, demand and energy costs must be distinguished.

Staff witness Wendling, as a result of his cost-of-service study of the fourteen Colorado-Ute members and one non-member, recommended and sponsored seasonally differentiated demand/energy rates. Mr. Wendling used an average and excess demand (AED) methodology for allocating production plant investment with coincident peak on the excess portion of

the allocator. As mentioned previously, the cost of service study sponsored by Staff was the only cost of service study offered and admitted into evidence in this case. The rate proposed by Staff as a result of the cost of service study is a demand/energy rate with seasonally differentiated demand charges for summer and winter and an annualized energy charge on a uniform kwh basis. The methodology employed by Staff followed cost of service principles that have been articulated and endorsed by this Commission in the past. The results of functionalizing customer demand and energy costs were depicted on Exhibit 60 which was admitted into the record.

Intervenor Atlantic Richfield Company (ARCO) and Exxon Company, U.S.A. (Exxon), while in general agreement with the Staff in this case, objected to the allocation of some \$24,084,126 of the average demand revenue to the annualized energy charge. Intervenor ARCO and Exxon argue that these charges are appropriately assigned to the demand component of the rate and to include them in the energy charge will have the effect of distorting the price signal to the member systems by artificially depressing the true cost reflective of the investment in plant.

Staff witness Wendling testified that for generation costs only there should be a recognition of the utilities' investment in thermal coal-fired generation plants. Investment in such plants minimizes the cost of fuel relative to investment in peaking plants with its attendant low capacity or capital costs and high fuel costs for fuels such as oil or gas.

Mr. Wendling testified that Staff was surprised at the degree to which Colorado-Ute's generators were cycled to follow load. This dispatch pattern indicates that although these units are coal-fired, they are being used only partially for base load generation. Substantial portions of these units are being used for peaking purposes. In effect, units with high capital costs and low running costs have been substituted for units with low capital costs and high running costs in meeting

Colorado-Ute's load. Although such capital substitution may accord with the national energy policy, it nevertheless creates an artificially high demand charge and an artificially low energy charge. Moreover, no recognition is given to the off-peak use of base load capacity. One way to address these deficiencies is by the use of a time-of-use rate which would recognize the use of capacity at the times it occurs.

The disadvantage of a time-of-use rate, of course, is the increased complexity of metering and billing, and the need to perform cost allocation studies for the distribution cooperatives. As a surrogate for such a rate, Mr. Wendling proposed a modification of the demand-energy rate. In this modified rate, the dollars of generation costs associated with the average portion of the AED allocation were spread into the energy charge. Mr. Wendling testified that for the Colorado-Ute system, the amount so calculated approximated very closely the dollars of base load generation that would have been spread to all hours by a time-of-use rate. Mr. Wendling further testified that the energy charge of 2.7 cents per kilowatt hour produced by this method closely approximated the off-peak energy charge of 2.89 cents per kilowatt hour produced by a time-of-use analysis. Moreover, the off-peak energy charge produced by the time-of-use analysis showed only a de minimis variation from summer to winter so that a uniform energy charge tracks costs very well.

With the revenue requirement associated with base load generation transferred to the energy charge, only the excess portion of the AED allocation remained to be collected in the demand charge. For Colorado-Ute's particular load shape and seasonality, the excess portion of the AED is a proxy for the peaking portion of the generating facilities. This peaking capacity was allocated on the basis of coincident peak demand recognizing that the members exhibit a high coincidence with the Colorado-Ute system peak. Placing only the excess portion of the AED allocation in the demand charge provides an automatic incentive to Colorado-Ute to improve its system load factor since the higher the load

factor becomes, the higher is the proportion of generation costs collected in the energy charge and the lower is the demand charge. This provides the incentive to maintain and improve the system load factor that was absent in the flat energy rate. The use of the demand/energy rate, with that portion of the excess allocator reflecting demand charges associated with peak generation assigned to the demand charge, as sponsored by Staff in this proceeding, will provide Colorado-Ute with a strong incentive to raise its load factor. This should, if applied in conjunction with an effective resource management plan, produce essentially a flat rate, the very rate Colorado-Ute seeks to employ. This rate form has the additional advantage that, in the present application, it comports with the regulatory objective of rate stability.

The Commission finds, based on the evidence in the record, that the demand/energy rate (with attendant customer charge) proposed by Staff in this proceeding is the most cost tracking rate for the wholesale power charges of Colorado-Ute. The evidence indicates that:

1. Colorado-Ute's costs are not uniform over all levels of output;
2. the experimental flat energy rate provides a distorted price signal to member systems;
3. there has been a general deterioration of Colorado-Ute's load factor;
4. the resource management plan of Colorado-Ute has not met the objective of generating off-peak non-member sales for the purpose of filling in the valleys on Colorado-Ute's load curve;
5. the demand/energy rate more directly tracks costs than a flat rate;
6. the demand/energy rate provides an accurate price signal and assigns costs more directly to the cost causer; and

7. the assignment of a portion of generation costs from the average portion of the cost allocation methodology to the energy charge properly recognizes the benefits which accrue from a system constructed of low fuel cost generating units which are designed for base load operation.

#### CONCLUSIONS ON FINDINGS OF FACT

The Commission concludes that: (1) the Motion to Dismiss filed by Intermountain should be denied; (2) Colorado-Ute shall file demand energy rates for its wholesale electric customers with seasonally differentiated demand charges and an annualized energy on a uniform kwh basis as hereinafter ordered.

An appropriate Order will be entered.

#### O R D E R

##### THE COMMISSION ORDERS THAT:

1. The "Motion of Intermountain Rural Electric Association to Dismiss for Lack of Jurisdiction" filed on August 27, 1982, by Intermountain Rural Electric Association be, and hereby is, denied.
2. Colorado-Ute Electric Association, Inc., within thirty (30) days of the effective date of the decision and order herein shall file rates and tariffs reflecting the rates set forth in Appendix B attached hereto and incorporated herein.
3. Colorado-Ute Electric Association, Inc., shall submit to this Commission a feasibility study of a load research program, as discussed on pages 19 and 20 of the decision herein. Such feasibility study is to be submitted within six (6) months of the effective date of the decision and order herein.
4. The twenty (20) day time period provided for pursuant to CRS 1973, 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.

This Order shall be effective twenty-one (21) days from the day and date hereof.

DONE IN OPEN MEETING the 26th day of July, 1983.

THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

Edythe S. Miller

Daniel E. Mues

Commissioners

COMMISSIONER ANDRA SCHMIDT  
NOT PARTICIPATING

jm:0856M

EXHIBIT  
NO.

EXHIBITS OF PUBLIC WITNESSES

- 1 Homeowners Guide to Use of Demand Controllers
- 2 Comments of Dr. Moe - Dencor, Inc.
- 3 Testimony of Teresa Erickson
- 4 Testimony of Joe Pepi

EXHIBITS OF THE PARTIES

| <u>Exhibit</u> | <u>Description</u>                                   | <u>Sponsored by</u>               |
|----------------|------------------------------------------------------|-----------------------------------|
| A.             | Direct testimony of Girts Krumins                    | Colorado-Ute                      |
| B.             | Direct testimony of Gene M. Harris                   | Colorado-Ute                      |
| C.             | Direct testimony of Robert H. Walker                 | Colorado-Ute                      |
| D.             | Direct testimony of Steven M. Foss                   | Colorado-Ute                      |
| E.             | Prepared testimony of C. Ward Armstrong              | Delta-Montrose                    |
| F.             | Prepared testimony of David Potter                   | Delta-Montrose                    |
| G.             | Prepared testimony of Richard W. Bussing             | Delta-Montrose                    |
| H.             | Prepared testimony of Joe Holeyfield                 | White River                       |
| I.             | Prepared testimony of A. J. Letey                    | Grand Valley                      |
| J.             | Prepared testimony of Norman Knudsen                 | Sangre De Cristo                  |
| K.             | Prepared testimony of Ed Grange                      | Holy Cross                        |
| L.             | Prepared testimony of James A. Golden                | Yampa Valley                      |
| M.             | Prepared testimony of Stanley R.<br>Lewandowski, Jr. | Intermountain                     |
| N.             | Prepared testimony of William W. Wood                | San Isabel                        |
| O.             | Prepared testimony of Norman Bailey                  | Southeast<br>Colorado Power       |
| P.             | Prepared testimony of John Sheppard                  | San Luis Valley<br>Rural Electric |
| Q.             | Prepared testimony of Garrett Y. Fleming             | Staff                             |
| R.             | Prepared testimony of William Loehr                  | Staff                             |
| S.             | Prepared testimony of Warren L. Wendling             | Staff                             |

| <u>Exhibit</u> | <u>Description</u>                                   | <u>Sponsored by</u> |
|----------------|------------------------------------------------------|---------------------|
| T.             | Prepared testimony of Bruce S. Mitchell              | Staff               |
| U.             | Rebuttal Testimony of Girts Krumins                  | Colorado-Ute        |
| V.             | Supplemental Rebuttal Testimony of Girts Krumins     | Colorado-Ute        |
| W.             | Rebuttal Testimony of Gene M. Harris                 | Colorado-Ute        |
| X.             | Rebuttal Testimony of Gary E. Pierson                | Colorado-Ute        |
| Y.             | Rebuttal Testimony of Raymond E. Keith               | Colorado-Ute        |
| 1.             | GK-1 Accompanying Direct Testimony of Girts Krumins  | Colorado-Ute        |
| 2.             | GK-2 Accompanying Direct Testimony of Girts Krumins  | Colorado-Ute        |
| 3.             | GK-3 Accompanying Direct Testimony of Girts Krumins  | Colorado-Ute        |
| 4.             | GK-4 Accompanying Direct Testimony of Girts Krumins  | Colorado-Ute        |
| 5.             | GK-5 Accompanying Direct Testimony of Girts Krumins  | Colorado-Ute        |
| 6.             | GK-6 Accompanying Direct Testimony of Girts Krumins  | Colorado-Ute        |
| 7.             | GK-7 Accompanying Direct Testimony of Girts Krumins  | Colorado-Ute        |
| 8.             | GK-8 Accompanying Direct Testimony of Girts Krumins  | Colorado-Ute        |
| 9.             | GK-9 Accompanying Direct Testimony of Girts Krumins  | Colorado-Ute        |
| 10.            | GK-10 Accompanying Direct Testimony of Girts Krumins | Colorado-Ute        |
| 11.            | GK-11 Accompanying Direct Testimony of Girts Krumins | Colorado-Ute        |
| 12.            | GK-12 Accompanying Direct Testimony of Girts Krumins | Colorado-Ute        |
| 13.            | GK-13 Accompanying Direct Testimony of Girts Krumins | Colorado-Ute        |
| 14.            | GK-14 Accompanying Direct Testimony of Girts Krumins | Colorado-Ute        |
| 15.            | WSCC Power Supply Design Criteria                    | Staff               |
| 16.            | REA Bulletin 112-5                                   | Staff               |
| 17.            | GH-1 Accompanying Direct Testimony of Gene Harris    | Colorado-Ute        |
| 18.            | GH-2 Accompanying Direct Testimony of Gene Harris    | Colorado-Ute        |
| 19.            | GH-3 Accompanying Direct Testimony of Gene Harris    | Colorado-Ute        |
| 20.            | GH-4 Accompanying Direct Testimony of Gene Harris    | Colorado-Ute        |
| 21.            | GH-5 Accompanying Direct Testimony of Gene Harris    | Colorado-Ute        |
| 22.            | GH-6 Accompanying Direct Testimony of Gene Harris    | Colorado-Ute        |
| 23.            | GH-7 Accompanying Direct Testimony of Gene Harris    | Colorado-Ute        |
| 24.            | GH-8 Accompanying Direct Testimony of Gene Harris    | Colorado-Ute        |

| <u>Exhibit</u> | <u>Description</u>                                                                                                                           | <u>Sponsored by</u> |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 25.            | GH-9 Accompanying Direct Testimony of Gene Harris                                                                                            | Colorado-Ute        |
| 26.            | GH-10 Accompanying Direct Testimony of Gene Harris                                                                                           | Colorado-Ute        |
| 27.            | GH-11 Statement of Income for 1st 8 months of 1982                                                                                           | Colorado-Ute        |
| 28.            | Calculation of Annualized Interest                                                                                                           | Staff               |
| 29.            | RJW-1 Accompanying Direct Testimony of Walker                                                                                                | Colorado-Ute        |
| 30.            | SMF-1 Accompanying Direct Testimony of Foss                                                                                                  | Colorado-Ute        |
| 31.            | SMF-2 Accompanying Direct Testimony of Foss                                                                                                  | Colorado-Ute        |
| 32.            | SMF-3 Accompanying Direct Testimony of Foss                                                                                                  | Colorado-Ute        |
| 33.            | DLP-1 Accompanying Testimony of Potter                                                                                                       | Delta-Montrose      |
| 34.            | DLP-2 Accompanying Testimony of Potter                                                                                                       | Delta-Montrose      |
| 35.            | DLP-3 Accompanying Testimony of Potter                                                                                                       | Delta-Montrose      |
| 36.            | DLP-4 Accompanying Testimony of Potter                                                                                                       | Delta-Montrose      |
| 37.            | DLP-5 Accompanying Testimony of Potter                                                                                                       | Delta-Montrose      |
| 38.            | DLP-6 Accompanying Testimony of Potter                                                                                                       | Delta-Montrose      |
| 39.            | 3 Page Exhibit - Operating Data Holy Cross                                                                                                   | Exxon               |
| 40.            | Revenue from Ski Area Operators as a Percentage of total revenues for the year 1981                                                          | Holy Cross          |
| 41.            | JAG-1 Accompanying Testimony of J. A. Golden                                                                                                 | Yampa Valley        |
| 42.            | JAG-2 Accompanying Testimony of J. A. Golden                                                                                                 | Yampa Valley        |
| 43.            | JAG-3 Accompanying Testimony of J. A. Golden                                                                                                 | Yampa Valley        |
| 44.            | Simplified WASP Flow Chart                                                                                                                   | Staff               |
| 45.            | GYF Schedules 1 - 6 Accompanying Testimony of Garrett Y. Fleming (21 Pages)                                                                  | Staff               |
| 46.            | Copy of the original agreement for computer program services between DORA (cover page memo dated July 26, 1982) and Colorado School of Mines | Staff               |
| 47.            | Subcontract between ENTEK and the Commission                                                                                                 | Staff               |
| 48.            | WL-1 Forecasts of Electrical Energy and Peak Power Demand for Colorado-Ute (144 Pages)                                                       | Staff               |
| 49.            | WL-2 Documents Cited in CUEA Case (2 Pages)                                                                                                  | Staff               |
| 50.            | WL-3 Graph Corresponding Load Factor (1 Page)                                                                                                | Staff               |
| 51.            | WL-4 Marginal Cost of Capacity per KWH (1 page graph)                                                                                        | Staff               |

| <u>Exhibit</u> | <u>Description</u>                                                                                                             | <u>Sponsored by</u> |
|----------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 52.            | WL-5 Marginal Cost of Capacity: 3 Different Coincidence Factors (1 Page)                                                       | Staff               |
| 53.            | WL-6 Marginal Cost of Capacity: 2 Different Peak Demands (1 Page)                                                              | Staff               |
| 54.            | WL-7 Two Different Peak Demands and High Coincidence (1 page graph)                                                            | Staff               |
| 55.            | WLW-1 Letter dated May 14, 1980 from Colorado-Ute to So. Calif. Edison Co. (6 Pages)                                           | Staff               |
| 56.            | WLW-2 Table of Sales at Time of Ute System Peak, Demand in KW (1 Page)                                                         | Staff               |
| 57.            | WLW-3 Staff: Interchange Adjustment to Colorado-Ute (1 Page)                                                                   | Staff               |
| 58.            | WLW-4 CUEA Schedule 4A - Allocation of rate of return under proposed rates (3 pp w/addendum) Schedules (44 Pages)              | Staff               |
| 59.            | WLW-5 Electric Cost of Service Narrative (5 Pages)                                                                             | Staff               |
| 60.            | WLW-6 Staff Computation of Proposed Rate Tariffs of Colorado-Ute (8 Pages)                                                     | Staff               |
| 61.            | WLW-7 WASP-82 Computer Program Description (4 Pages)                                                                           | Staff               |
| 62.            | WLW-8 Letter of May 4, 1982 from Colorado-Ute to Dr. Parkins (4 Pages)                                                         | Staff               |
| 63.            | WLW-9 Report on Colorado-Ute (5 Pages)                                                                                         | Staff               |
| 64.            | Rates Proposed by Staff and Rates proposed by Colorado-Ute.                                                                    | Colorado-Ute        |
| 65.            | FERC approved wholesale Rate Schedules of Public Service to various customers (19 Pages)                                       | Colorado-Ute        |
| 66.            | Simplified System Description CUEA                                                                                             | Exxon               |
| 67.            | BSM-1 Review of Power Plant Performance Data C-U Hayden #1                                                                     | Staff               |
| 68.            | BSM-2 Review of Hourly Generation Patterns on Days of Maximum Requirements During Test Year                                    | Staff               |
| 69.            | BSM-3 Total Net Value of Distribution System Additions by Plant Account 1972-1981 CUEA                                         | Staff               |
| 70.            | BSM-4 Load Curves                                                                                                              | Staff               |
| 71.            | BSM-5 Cost of Compliance with Governmental Regulation                                                                          | Staff               |
| 72.            | SEC. 290.404 Title 18--Conservation of Power, Water Resources from Chapter I Federal Energy Regulatory Commission (pp 580-582) | Empire Electric     |

| <u>Exhibit</u> | <u>Description</u>                                                                                                                                                            | <u>Sponsored by</u> |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 73.            | Article "Service Area and Jurisdictional Variations in Factors Influencing Residential Electricity Demand" from <u>Public Utilities Fortnightly</u> (August 5, 1982, page 33) | Empire Electric     |
| 74.            | REA Bulletin 45-2, Demand Tables - June, 1963 w/transmittal letter dated October 24, 1978 from REA to All Electric Borrowers                                                  | Empire Electric     |
| 75.            | Wendling Diagram - Screening Costs                                                                                                                                            | Staff               |
| 76.            | GK-15 Monthly Load Factor, Acc. Rebuttal                                                                                                                                      | Colorado-Ute        |
| 77.            | GK-16 Day of Maximum Demand - Demand Curve, Acc. Rebuttal of Krumins                                                                                                          | Colorado-Ute        |
| 78.            | GK-17 Member Peak Diversity, Acc. Rebuttal                                                                                                                                    | Colorado-Ute        |
| 79.            | Comparison of Residential Heating Customers on Demand and Non-Demand Rates (Study and observations by M.E. Giddings for J. H. Ranniger) (27 Pages)                            | Colorado-Ute        |
| 80.            | Bary Curve - as discussed by Colorado-Ute Witness Krumins in his rebuttal testimony (graph)                                                                                   | Exxon               |
| 81.            | GEP-1 Accompanying Rebuttal of G. Pierson (3 Pages)                                                                                                                           | Colorado-Ute        |
| 82.            | GEP-2 Accompanying Rebuttal of G. Pierson (5 Pages)                                                                                                                           | Colorado-Ute        |
| 83.            | GEP-3 Accompanying Rebuttal of G. Pierson                                                                                                                                     | Colorado-Ute        |
| 84.            | Staff Cost-of-Service Study Based on Demand-Energy Rate                                                                                                                       | Exxon               |
| 85.            | REK-1 Accompany Rebuttal Testimony of R. Keith                                                                                                                                | Colorado-Ute        |
| 86.            | REK-2 Accompany Rebuttal Testimony of R. Keith                                                                                                                                | Colorado-Ute        |
| 87.            | Rates proposed by Staff and Rates proposed by Colorado-Ute under investigation this case.                                                                                     | Staff               |
| 88.            | Staff Exhibit (WLW-16) 18 Pages - Proposed rates Staff Computation                                                                                                            | Staff               |
| 89.            | Forecast with Demand & Energy Rate and Load Controller (graph)                                                                                                                | Staff               |
| 90.            | Daily Load Shape for Day of Annual System Peak (graph) 1971, 1981, 1991                                                                                                       | Staff               |
| 91.            | Daily Load Shape for Day of Annual System Peak (graph) 1981                                                                                                                   | Staff               |
| 92.            | CUEA - Report for Utility Wed. November 8, 1982 (6 Pages)                                                                                                                     | Staff               |
| 93.            | CUEA Incremental Cost and Benefit Analysis, Demand Energy Rates for New Electric Space Heating 1983 - 2001                                                                    | Staff               |

| <u>Exhibit</u> | <u>Description</u>                                                                   | <u>Sponsored by</u> |
|----------------|--------------------------------------------------------------------------------------|---------------------|
| 94.            | CUEA Review of Occurrence of Member System Monthly Demands (4 Pages)                 | Staff               |
| 95.            | Load Plot of CUEA for example Month of November 1980 (Hand-drawn diagram - Mitchell) | Staff               |
| 96.            | 14 Member Peak Demand, Member Demand at Time of 14 Peak Ratio Thereof                | Colorado-Ute        |

All of the above listed exhibits were admitted into evidence.

LIST OF INTERVENORS

|                                             | <u>Date Petition Filed</u>             | <u>Granted</u> |
|---------------------------------------------|----------------------------------------|----------------|
| Upper Arkansas Area Agency on Aging         | 1-8-82                                 | 2-17-82        |
| San Luis Valley Rural Electric Cooperative  | 1-29-82                                | 2-2-82         |
| White River Electric Association            | 2-4-82                                 | 2-17-82        |
| Yampa Valley Electric Association           | 2-8-82                                 | 2-17-82        |
| Intermountain Rural Electric Association    | 2-8-82                                 | 2-17-82        |
| San Isabel Electric Association, Inc.       | 2-9-82                                 | 2-17-82        |
| Western Slope Energy Research Center        | 2-16-82                                | 4-15-82        |
| Grand Valley Rural Power Lines, Inc.        | 2-19-82                                | 2-23-82        |
| Sangre De Cristo Electric Association, Inc. | 2-23-82                                | 2-23-82        |
| Western Colorado Congress                   | 2-23-82                                | 4-15-82        |
| Delta-Montrose Electric Association, Inc.   | 2-25-82                                | 3-12-82        |
| City of Delta, Colorado                     | 2-26-82                                | 3-26-82        |
| Empire Electric Association, Inc.           | 2-26-82                                | 3-26-82        |
| Union Carbide Corporation                   | 3-1-82                                 | 3-26-82        |
| Shell Oil Company                           | 6-10-82                                | 7-9-82         |
| San Miguel Power Association, Inc.          | 7-30-82                                | 8-17-82        |
| Exxon Co., USA                              | 8-27-82                                | 9-14-82        |
| Holy Cross Electric Association             | 2-25-82                                | 3-12-82        |
| Southeastern Colorado Power Association     | Orally allowed to intervene at hearing |                |
| Atlantic Richfield                          | Orally allowed to intervene at hearing |                |

Rates Proposed By Staff

Rate Schedule A

|                                                      |                                  |
|------------------------------------------------------|----------------------------------|
| Customer Charge                                      | \$593.00 per month               |
| Summer Demand Charge (May 1 through<br>September 30) | \$4.27 per kw                    |
| Winter Demand Charge (October 1 through<br>April 30) | \$9.74 per kw                    |
| Energy Charge                                        | \$0.0279349 per kwh <sup>2</sup> |
| Energy Charge                                        | \$0.0279849 per kwh <sup>1</sup> |

Rate Schedule B

|                                                      |                                  |
|------------------------------------------------------|----------------------------------|
| Customer Charge                                      | \$593.00 per month               |
| Summer Demand Charge (May 1 through<br>September 30) | \$5.17 per kw                    |
| Winter Demand Charge (October 1 through<br>April 30) | \$7.01 per kw                    |
| Energy Charge                                        | \$0.0265230 per kwh <sup>2</sup> |
| Energy Charge                                        | \$0.0265730 per kwh <sup>1</sup> |

Notes:

- 1 Rate including Tariff Rider No. 1 if Colorado-Ute Electric Association, Inc. does the billing to its distribution electric cooperatives.
- 2 Net effective rate.