

Service Date: July 28, 1978

PROPOSED ORDER NO. 4417b

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

IN THE MATTER of the Application of)
the MONTANA POWER COMPANY for) DOCKET NO. 6546
authority to increase rates for)
Missoula water service and regula-) ORDER NO. 4417b
tory approval of certain changes)
in the regulations covering such)
service.)

APPEARANCES

For the Applicant:

ROBERT P. GANNON, Attorney at Law, The Montana Power Company,
40 East Broadway, Butte, Montana, on behalf of the Applicant.

For the Protestant:

GEOFFREY L. BRAZIER, Montana Consumer Counsel, 34 West Sixth
Avenue, Helena, Montana.

For the Commission:

JAMES C. PAINE, Staff Counsel

Before:

THOMAS J. SCHNEIDER, Commissioner and Hearing Examiner
P. J. GILFEATHER, Commissioner

FINDINGS OF FACT

GENERAL

1. On November 23, 1977, the Commission received the appli-
cation of the Montana Power Company (MPC or Applicant) for authority
to increase the rates charged customers of its water utility in

Missoula, Montana. If approved as proposed, the higher rates would generate \$1,080,235 of additional revenue on an annual basis.

2. A Consolidated Motion for Temporary Rate Increases in Dockets 6545 and 6546 was received by the Commission on March 28, 1978. In its Motion, the Company asked the Commission to grant temporary rate relief which would produce \$721,922 of increased yearly revenue. The Commission chose to defer its decision on a temporary increase until after the close of hearings.

3. Following legal notice, hearings were held in Docket No. 6546 May 1, 2, and 3 in Missoula and Superior. Testimony was heard on the need for a permanent rate increase and the Company renewed its request for interim relief.

4. Order No. 4417a in this Docket issued June 2, 1978 provided Montana Power interim rate relief by authorizing the Company to file rate schedules which would yield \$512,932 of additional annual revenue to the utility. The increase was effectuated by increasing each rate for water service by 63 percent above its then-current level.

5. The Montana Consumer Counsel (MCC) has participated in the proceedings of this Docket since their inception on behalf of consumers.

RATE OF RETURN

6. Montana Power's requested revenue increase corresponds with a 9.5 percent overall rate of return on its proposed rate

base. According to the calculations of Dr. Wilson, witness for the Consumer Counsel, 9.5 percent constitutes a fair return on capital invested in the utility. Since the Applicant's request and the Protestant's recommendation are identical, the Commission finds that 9.5 percent corresponds with a fair and reasonable rate of return for the Missoula water utility.

RATE BASE

7. An average rate base provides the best matching of operating income and the assets responsible for that income. In addition, the Commission believes that the most recent historic data available should serve as the basis for determining rate base. Therefore, the Commission finds that a rate base which is the average for the year 1977 is proper in determining Applicant's revenue deficiency for its water utility.

8. In response to a data request from the Commission staff, Montana Power supplied what was subsequently labeled Exhibit 6, Missoula Water Utility, Plant Average 1977-Using Beginning and Ending Year Plant. According to the Company's figures in this Exhibit, the total value of plant was \$5,706,523. This sum includes net additions to plant and the accompanying normalizing adjustments.

9. Net plant additions included in rate base consist of a one-million-gallon reservoir and two wells all constructed to comply with the Safe Water Drinking Act and non-revenue producing.

Since these assets enable the utility to supply customers during the period of high turbidity, their depreciated value is properly part of rate base.

10. Among the assets in the Company's proposed rate base is \$583,345.39 in miscellaneous intangible plant. This amount is the difference between the original cost to Montana Power when it purchased the water utility in 1929 including net additions thereafter and the original cost to parties first devoting property to public use including net additions thereafter. (See figures submitted by MPC's rate and depreciation department manager quoted in Commission Order No. 2687 in Docket No. 4536.)

11. Revised Codes of Montana, 1947, Sec. 70-106, gives the Commission authority to "ascertain the value of the property of every public utility actually used and useful for the convenience of the public. The Commission is not bound to accept or use any particular value in determining rates, provided that if any value is used, such value may not exceed the original cost of the property". The total of \$583,345.39 contained in the intangible plant account represents the difference between the purchase price of the water utility and its original cost when first devoted to public use. As such, this amount must be excluded from the Company's rate base.

12. Montana Power proposed the inclusion in rate base of \$13,751.83 for an acquisition adjustment. Under cross-examination,

Bennie explained that this figure was the excess of the purchase price for Farviews Water over its original cost depreciated. For the reasons given in Finding 11, the Commission declines to include the acquisition adjustment in Montana Power's rate base.

13. Applicant calculated its cash working capital requirement as one-eighth of annual operating and maintenance expenses. This formula is consistent with the Commission's orders in recent Montana Power rate cases.

14. Wilson computed cash working capital as an allocation of the difference between current assets and current liabilities for the consolidated company. The ratio of water revenues to total revenues times 97.60% was used to allocate working capital to Missoula.

15. The Commission finds the method employed by Montana Power a reasonable means of determining the utility's cash working capital requirement. As noted above, it approximates the formula used in recent Montana Power orders and also corresponds with the FPC methodology for computing cash working capital requirements. The amount of the working capital allowance so computed is dependent upon the level of operating and maintenance expenses determined in subsequent findings.

16. During hearings in Superior, Commission counsel questioned Bennie on the propriety of including the entire water utility's materials and supplies inventory in the rate base for Missoula when items from that inventory were used in both Missoula and

Superior. In response to the staff's request for a late-filed exhibit on this subject, the Company calculated the value of material and supply withdrawals for Superior operations. The Commission finds that the proportion of inventory held to satisfy Superior's needs is so small that its exclusion from that utility's rate base is immaterial. Consequently, the full amount of materials and supplies contained in Applicant's proposed rate base in Exhibit 6 is found appropriate for Missoula.

17. Not all the Company's assets were acquired with the use of investor-supplied funds; instead, some were financed through customer-contributed capital. During the course of hearings in Missoula, three sources of customer contributions were identified. These were accumulated deferred income taxes, accumulated deferred pre-1971 investment tax credits and customer advances for construction. Because these funds are not supplied by investors, an amount equal to their sum must be subtracted from rate base to limit Applicant's return to that required on the utility's capitalization.

18. The rate-base reductions consistent with the preceding finding are calculated by averaging the yearend 1976 and yearend 1977 balances in each account mentioned and multiplying the result by 95.3%, the proportion of total water utility net plant serving Missoula. Relying on this procedure, the following amounts of customer-contributed capital were obtained:

	(A)	(B)	(C)	(D)
	<u>12-31-76</u>	<u>12-31-77</u>	<u>(A)+(B)</u>	<u>(C)x95.3%</u>
			<u>2</u>	
Accumulated Deferred Income Taxes	\$53,000	\$72,000	\$62,500	\$59,562
Accumulated Deferred Pre-1971 Investment Tax Credits	22,343	21,631	21,987	20,954
Customer Advances for Construction	614,258	467,628	540,943	515,519

Bennie presented a yearend rate base for the Company which utilized the yearend depreciation reserve in calculating depreciated asset values. When asked to compute the average year rate base for 1977, Montana Power employed the average of 1976 and 1977 depreciation reserves.

20. Wilson's testimony was based on an average rate base, one which used the 1977 yearend depreciation reserve. In his rebuttal, Bennie argued that Wilson's computations resulted in a mismatch of plant and depreciation which understated original cost less depreciation. Responding through surrebuttal, Wilson defended his method, alleging that no mismatch occurred since 1977 depreciation expense was a function of assets in service at that year's beginning; accumulated depreciation was not overstated, according to the witness, since none was booked for plant additions during the year.

21. The Commission finds that utilization of average depreciation reserves provides the best matching of assets and their associated depreciation. To rely on Wilson's methodology would be treating yearend depreciation as though it had been booked by midyear which is not the case; both Bennie and Wilson acknowledged that the 1977 depreciation reserve of \$1,671,643 did not appear on the books of the Company until December 31 of that year.

22. Consistent with the above Findings, the following original cost depreciated rate base is determined reasonable for Missoula water:

	<u>12-31-76</u>	<u>12-31-77</u>	<u>Average</u>
Original Cost of Plant			
Water Plant	\$5,562,995	\$5,736,868	\$5,649,931
Common Plant	224,024	255,103	249,563
Total Plant	<u>5,807,019</u>	<u>5,991,971</u>	<u>5,899,494</u>
Depreciation Reserve			
Water Plant	1,555,112	1,634,283	1,594,697
Common Plant	48,334	37,360	42,847
Total Plant	<u>1,603,446</u>	<u>1,671,643</u>	<u>1,637,544</u>
Depreciated Original Cost			
Water Plant			4,055,234
Common Plant			206,716
Total Plant			<u>4,261,950</u>
Adjustments to Net Plant			
Add: Normalizing Adjustment for Non-revenue Producing Plant			586,633
Less: Accompanying Adjustment to Depreciation Reserve			<u>(8,410)</u>
Total Adjustment to Net Plant			578,223

	<u>12-31-76</u>	<u>12-31-77</u>	<u>Average</u>
Less: Customer Contributed Capital			
Accumulated Deferred Income Taxes	50,509	68,616	59,562
Accumulated Investment Tax Credits Pre-1971	21,293	20,614	20,954
Customer Advances for Construction	<u>585,388</u>	<u>445,649</u>	<u>515,519</u>
Total Customer Contributed Capital	657,190	534,879	596,035
Plus: Working Capital			
Materials and Supplies	193,417	161,780	177,599
Working Cash			<u>91,654</u>
Total Working Capital			<u>269,253</u>
Total Water Utility Rate Base			4,513,391

23. With a rate base of \$4,513,391, the utility must earn \$428,772 to provide investors a fair return:

Rate Base ^a	\$4,513,391
Fair Rate of Return ^b	9.5%
Required Balance for Return	<u>\$ 428,772</u>

a. Finding of Fact 22

b. Finding of Fact 6

TEST YEAR

24. Through the testimony of its witness, Mr. Bennie, the Company proposed that a test year of projected 1977 operating results with adjustments for rate case presentation be used.

25. With the more recent data available to him, Wilson recommended that an actual 1977 test year be utilized in determining the Applicant's revenue deficiency.

26. The Commission finds that the appropriate test period is the latest historical year for which revenue and expense information is available. Accordingly, a test year ending December 31, 1977 will be employed in this Order.

REVENUES AND EXPENSES

27. In Exhibit 5, prepared in response to a data request from the Commission staff, Applicant calculated revenues adjusted for known and measurable changes of \$768,289 during 1977. Actual revenues were adjusted downward by \$16,377 to reflect the higher-than-normal sprinkling revenues from metered customers assumed to result from the low level of precipitation between May and October 1977.

28. Wilson alleged that normalized revenues for 1977 should total \$811,787. This sum included an upward adjustment of \$10,357 reflecting below normal metered water sales during the year. Wilson also increased actual revenues by \$16,763 to account for growth in the number of unmetered customers.

29. Montana Power has demonstrated that actual sprinkling revenues in the test year were above those considered normal. (See Adj. M-Rev-1 of Exhibit 5). The Commission adopts the revenue adjustment proposed by MPC.

30. To be consistent in its reliance on historic data rather than forecasts, the Commission rejects Wilson's proposal that revenues be adjusted for an increase in unmetered customers.

31. Applicant's Exhibit 5 contained a number of expense adjustments which the Company felt were necessary in computing the revenue deficiency. Expenses were reduced by the elimination of costs for advertising and contributions not allowed for rate

case purposes; this reduction totaled \$2,268. Because Montana statutes do not permit the recovery of such advertising and contribution expenses from ratepayers, the Commission accepts the associated expense reduction.

32. Montana Power proposed that actual electric energy costs be reduced by \$11,387 to bring the expense to the level that would have been incurred in a year of normal precipitation requiring less pumped water than was needed during 1977. This adjustment is appropriate in light of the higher-than-average power expenses actually recorded.

33. To comply with the Safe Water Drinking Act, pumped water must be relied upon exclusively during the period of high turbidity. For those weeks, the utility's pumping expense is estimated to increase by \$18,865. The additional expense is found to be a reasonable cost for rate-making purposes.

34. A normalization adjustment of \$21,865 was proposed by the Company in reflection of the electric rates prevailing at the end of 1977 which were higher than those paid the first eleven months of the year.

35. On July 1, 1977, employees of Montana Power were granted a general pay increase; had the increase been in effect the entire year, labor costs would have been higher by \$17,133. The company alleged that actual expenses should be increased by this amount to normalize them.

36. Wilson contended that Applicant's proposed changes in power and labor expenses were improper since neither represented true normalization; instead, electric and wage rates could be anticipated to change regularly. In Wilson's words, "they appear to be simply recurring types of normal cost increases that are part of a business trend and normal business expectations". He continues, "It would be inappropriate to reflect these cost increases forward without reflecting the productivity increases and the offsetting sales growth increases which would at least have the effect of mitigating the level of these cost increases".

(Trans. pp. 333-4)

37. The Commission finds that the effects of the increased electric and wage rates are known and measurable changes for which adjustment should be made in determining test year expenses. Since Wilson did not document the improved productivity he alleges, no offsetting adjustment is possible.

38. Montana Power amortized rate-case expenses over a three-year period; this treatment reduced 1977 expenses by \$24,538.67. The proposed amortization is consistent with the Commission's previous orders and is accepted in the instant case.

39. During 1977, additions were made to the utility's plant which would increase Applicant's property tax liability. Completion of a reservoir and two wells in or soon after the test year similarly add to property taxes. According to MPC's calculations found in Exhibit 5, Adj. M-Exp-7, the additional taxes

total \$28,360. The Commission finds this adjustment reasonable since the associated assets have been included in rate base. Because the reservoir and wells were constructed to comply with the Safe Water Drinking Act and are non-revenue producing, no additional revenue is anticipated as a result of their construction.

40. To compute the balance for return, Montana Power eliminated the negative income taxes which would not have been available to the water utility had it filed a separate return. Standing on its own, Missoula Water would have had a zero income tax liability. This adjustment is proper here if the benefits of the negative tax liabilities are recognized in ascertaining the utility's revenue deficiency.

41. Making the adjustments determined appropriate in the preceding Findings, the balance for return is \$304,863 calculated as follows:

	<u>1977 Actual</u>	<u>Adjustment</u>	<u>1977 Adjusted</u>
GROSS REVENUES	\$784,666	\$(16,377)	\$768,289
COST OF SERVICE			
Pumping & Purification	214,103	23,017	237,120
Transmission & Distribution	202,357	6,326	208,683
Customer Accounts Expense	67,522	-0-	67,522
Sales Expense	5,574	(1,638)	3,936
Administrative & General	224,011	(25,169)	198,842
Labor Adjustment	-0-	17,133	17,133
Sub Total	<u>713,567</u>	<u>19,669</u>	<u>733,236</u>

	<u>1977 Actual</u>	<u>Adjustment</u>	<u>1977 Adjusted</u>
Depreciation	93,680	-0-	93,680
Amortization of ITC-Cr.	1,955	-0-	1,955
Provision for Lib. Depreciation	16,811	(16,811)	-0-
Provision for Def. Income Taxes			
-Corp. License Tax	16,841	(16,841)	-0-
Taxes Other Than Income Taxes	219,831	28,360	248,191
Income Taxes-Federal	(237,900)	237,900	-0-
Income Taxes-Corp. License Tax			
(Previous Yr.)	(25,851)	25,851	-0-
Income Taxes-Corp. License Tax			
(Current Yr.)	(35,030)	35,030	-0-
Sub Total	46,400	293,516	339,916
Total	<u>759,967</u>	<u>313,185</u>	<u>1,073,152</u>
BALANCE FOR RETURN	<u>24,699</u>	<u>(329,562)</u>	<u>(304,863)</u>

REVENUE DEFICIENCY

42. Computation of the revenue increase necessary to yield the fair return determined in Finding 23 requires adjustment for the negative income taxes available to Missoula Water through the filing of a consolidated return. For this purpose, the Company utilized its estimate of negative liabilities for 1977 in its original filing and provided actual figures when they became known after yearend.

43. Disagreeing with Montana Power's treatment, Wilson recommended that negative taxes attributable to the Water Department be summed for the past five years and amortized over three. Wilson contended that a three-year amortization corresponded with the period used to amortize rate case expenses, the number of years the new rates are likely to remain in effect and the carry-forward period for losses in computing federal income taxes.

44. The propriety of using negative income taxes to reduce the return requirements and benefit water utility customers was not questioned by witnesses for either the Company or the Consumer Counsel. Instead, disagreement centered on the method which should be used to calculate the negative tax credit. The Commission believes that actual 1977 taxes with rate case and normalizing adjustments should be used. In response to a request made by Commission counsel the Company supplied the following figures, consistent with the balance for return given in Finding 41:

U.S. Federal Income Tax	\$(327,397)
Montana Corporation License Tax	(49,174)
Prov. for Deferred Income Taxes	
Lib. Dep.	25,258

45. With recognition of the tax liabilities in the immediately preceding Finding, Missoula Water experienced an adjusted balance for return of \$47,248:

Test Year 1977 Balance for Return	
Under Present Rates	\$(304,863)
Adjustments for Income Taxes Not	
Reflected in Rate Case Presentation:	
U.S. Federal Income Tax	(327,397)
Montana Corp. License Tax	(49,174)
Prov. for Deferred Income Taxes	
Lib. Depr.	25,258
Increase in Amortization of	
Investment Tax	
Credit which will be Available	
under Proposed Rates	(798)
Adjusted Balance for Return	\$ 47,248

46. The fair return determined in Finding 23 exceeds the adjusted balance for return by \$381,524. Consequently, the utility should be granted rate relief to provide a fair return on investment.

47. Because the utility must pay income taxes, the revenue deficiency exceeds the return shortfall. Montana Power derived the revenue deficiency by applying the statutory rates for federal income taxes, the Montana corporation license tax and the Montana Consumer Counsel Tax. Collectively, these taxes yielded a revenue requirement equal to 206.33 percent of the return deficiency.

48. Cross-examination of Woy revealed that Montana Power incurred an income tax expense of \$7,199,000 on pretax accounting income of \$31,577,000 for the year 1977. (Trans., Vol. I, pp. 147 and 149) Dividing the expense by pretax income, Wilson determined an effective tax rate of 22.8 percent. This percentage was then used to compute the Company's revenue deficiency. Wilson argued that the effective tax rate was appropriate in his calculations since it represented the actual ratio of taxes to pretax income. Income taxes actually paid are less than those computed with the statutory rate because the utility has various deductions available to it, such as liberalized depreciation, which reduce its taxable income. Wilson alleged that utilization of the effective tax rate in computing the Company's revenue deficiency gave proper recognition to the Company's actual income tax liabilities.

49. In his surrebuttal testimony, Woy claimed that incremental revenue, such as that derived from a rate increase, would be taxed at the statutory rate rather than the effective tax level. (Trans. Vol. III, pp. 212-213) For this reason, he disagreed with Wilson's use of the effective tax rate in calculating the revenue deficiency.

50. The Commission agrees with MPC's contention that revenues derived from the rate increases authorized herein will be taxed at the statutory tax rates. While the effective tax rate is an average applicable to total pre-tax accounting income, Montana Power adequately demonstrated that incremental revenue will be taxed at the corresponding incremental rates which are those specified in the tax codes.

51. The Commission in rejecting the effective tax presentation of Dr. Wilson on this record, does not foreclose the effective tax principle as it is traditionally applied to subsidiary company taxes. Furthermore, the flow through accounting approach, which may be suggested by Dr. Wilson's presentation, is a matter that is ripe for discussion in a comprehensive manner in future rate cases.

52. By relying upon the Applicant's methodology described in Finding of Fact No. 47, a revenue deficiency of \$787,198 is determined as follows:

Return Deficiency ^a	\$381,524
Income-to-Revenue Multiplier	x 2.0633
Revenue Deficiency	<u>\$787,198</u>

a. Finding of Fact 46

COST OF SERVICE AND RATE DESIGN TESTIMONY

53. Applicant's requested rate structure was based on a cost of service study performed by Henningson, Durham and Richardson (HDR), a firm of consulting engineers. Relying on the base-extra capacity method to allocate costs among customer classes, the HDR study prescribed rates which were subsequently adopted by Montana Power in its application for increased water service rates.

54. The proposed test year revenue requirement was used as the total cost of service. The cost of service allocations to the various customer classes were based upon the premise that all classes should contribute identical rates of return of 9.5% to the utility. The fundamental bases of allocating cost responsibility to the various classes were three water use characteristics: (1) Base or average annual water use; (2) maximum day use; and (3) maximum hour use.

55. The actual water consumption data for Missoula is extremely limited. Significantly, over 78 percent of the annual water sales are assigned to unmetered customers--the bulk of which are residential customers. This annual unmetered sales figure was calculated by deducting from the annual system input: (1) an assumed 19 percent system loss; and (2) the total annual metered sales. From this estimated annual sales figure for unmetered customers, estimates were made of water use for the individual classes within the unmetered group. Finally, estimates

of the maximum hour and maximum day use characteristics of each customer class were determined by engineering judgement and information from similar communities in the Rocky Mountain area.

(Tr. 295) During cross-examination, Mr. Hofstedt stated, "Where you have a large percentage of flat rate customers, you have your daily water use and you have your monthly figure and you do end up making some assumptions". (Tr. 296)

56. Of particular significance were the wide differentials among percentage increases proposed for the various customer classes. The proposed overall rate increase for the system was 140 percent. As an example of the impact of the proposed rates on different customer classes, metered service customers were assigned a 38.6% rate increase as compared to a 581 percent increase assigned to the unmetered residential sprinkling customers.

57. The HDR Water Rate Study and testimony in the case strongly recommended a program to achieve universal metering of customers on the system over a period of five years.

PROTESTANTS

58. The Montana Consumer Counsel sponsored no cost of service or rate design testimony in this case. However, several public witnesses testified in opposition to the substantial flat rate sprinkling increase proposed by the company. This public testimony suggested three likely results if the proposed rates were approved:

(1) Some residents would choose to drill their own irrigation wells in lieu of using water furnished by the utility (Tr. 38; 43); (2) others would increase their water consumption until they felt they were getting their money's worth at the higher rates (Tr. 237); and (3) still others, particularly those on fixed incomes, would find it necessary to eliminate all sprinkling (Tr. 78; 188; 195; 237). The testimony of the "Garden City" consumers stressed the desire to keep sprinkling rates in a reasonable range to allow gardening and lawn maintenance.

COMMISSION ANALYSIS AND FINDINGS: RATE DESIGN & COST OF SERVICE

59. The Commission is responsible to insure that the rates charged to the various customer classes are just and reasonable and not unjustly discriminatory. The Commission is designed to have and apply its expertise to the evidence presented in order to establish such just rates.

60. The proposed rate schedules for the various classes result in widely differing percentage increases. It is, therefore, essential that the justification for the differential be carefully examined.

61. The cost of service study performed by HDR was more detailed or sophisticated in its methodology than appears justified by the scant water use data available. The assignment of cost responsibility to the various customer classes based on estimated water use data and estimated extra-capacity demand characteristics, as discussed previously, necessarily produces inexact and questionable results. The Commission and staff are seriously

handicapped in the analysis of a cost study so heavily based on engineering judgement and information from similar communities in the Rocky Mountain area.

62. The Commission finds that the evidence in the case supports the proposed levels of increase for the metered class and the unmetered residential class for domestic use. The proposed rate design for the classes properly recognized that unmetered and metered residential customers should pay comparable rates for basic or average water use.

A comparison of the flat rate of \$5.20 per month for an unmetered six room house to the bill of \$4.94 per month for an average metered customer using 1600 cubic feet of water per month provides a reasonable matching.

63. Likewise, the testimony of Mr. Hofstedt (Tr. 292; 300) indicated that small commercial class consisted of establishments of not more than two employees. The estimated average usage of these customers was estimated to be less than the flat rate residential customer. The rates of \$4.50 per month for these commercial accounts containing a toilet and shower and \$4.00 without toilet and shower are comparable to the basic residential rates and are approved.

64. The proposed rates schedules found appropriate in the two previous Findings yield the following test year revenue increases:

	Revenue Increase
Metered - General Service	\$128,153
Unmetered - Residential Domestic	326,738
Small Commercial - Industrial	<u>2,814</u>
TOTAL	\$457,705

65. The remainder of the approved revenue increase or \$329,493 (\$787,198 - \$457,705) is to be spread to the various unmetered classes according to the subsequent findings.

66. The Commission recognizes that until universal metering is achieved on the Missoula system equity questions on rate design between and within the various customer class will not be resolved. The goals of HDR and Applicant to establish equitable cost based rates and to encourage water conservation through the resulting cost based price signals are appropriate. However, the rigid methodology, based upon scant water use data, has resulted in proposed rates to various unmetered customer classes which are unreasonable under the circumstances.

67. The proposed 581 percent increase for unmetered residential sprinkling rates constitutes the key rate design issue in this case. As discussed above, testimony by public witnesses in opposition to the magnitude of the proposed sprinkling charge identified three likely results if such rates were implemented. The Commission, in attempting to resolve this issue, is aware that the per customer water use of unmetered sprinkling customers is, based upon HDR estimates, about three times that of metered customers.

68. Several factors persuade the Commission to moderate the proposed rate increase to unmetered sprinkling customers:

- (a) The cost of service allocations for the unmetered classes were determined through engineering judgement and water use characteristics of classes from other communities in the Rocky Mountain area. Actual water use data and demand characteristics are not available on this water system where the majority of the customers are unmetered.
- (b) The rigid concept of identical rates of return from the various classes, in the absence of actual data and in view of the sheer magnitude of the impact of such an adjustment to an existing schedule of twenty (20) years, is unreasonable.
- (c) The potential for unmetered sprinkling customers to substantially increase water consumption in an attempt to get their money's worth is real. This "reverse reaction" was not adequately considered in the Water Rate Study where at III-17 water conservation is discussed: "It is anticipated that decreased usage will only occur with metered customers and that there will be little reduction in unmetered customer usage". (Emphasis added.)
- (d) Certain low income customers would be forced to eliminate sprinkling which is undesirable and unfair under circumstances of the "reverse reaction" of some customers in (c) and when the option of obtaining metered service may be delayed significantly. See (c).
- (e) The Water Study recommends a five year program to install 11,500 meters on the existing unmetered customers. It is obvious that a customer desiring a meter as a result of the substantial sprinkling rate increase may be long delayed in obtaining metered service (i.e., the flexibility of converting to metered service is significantly limited).

69. These arguments or rationale, particularly (a) and (b), apply to the remaining unmetered customer classes as well. Even

though public testimony was limited to residential sprinkling rates, equity requires a similar moderation treatment for these classes.

70. Consequently, the Commission finds that the remainder of the approved revenue increase (\$329,493) should be spread to these unmetered classes as a uniform percentage of the increase requested from each customer class. The percentage is determined as follows:

$$\frac{\text{Remainder of Approved Revenue Increase}}{\text{Proposed Revenue Increase from Remaining Unmetered Classes}^a} = \frac{\$329,493}{622,566} = 52.9\%$$

a Proposed Revenue Increase from:

Unmetered Service	
Residential Sprinkling	\$496,848
Commercial-Private Fire Sprinklers	11,661
Government-Hydrant Rentals	94,142
Sewer-Streets	10,308
Park Sprinkling	9,607
TOTAL	\$622,566

71. Within each class of service, the individual rates such as per 100 square feet of sprinkling area shall be increased by 52.9 percent of the proposed amount.

72. By spreading rate changes to the effected unmetered classes in this manner, the Commission has recognized the relative cost of service determinations made by HDR.

73. The Commission strongly recommends implementation of an aggressive universal metering program for the Missoula system. It is impossible to construct an equitable cost-based rate structure at present due to the paucity of actual consumption data available. As flat-rate customers are moved to the metered schedule with MPC's proposed metering program, more information will be available to the utility on the usage characteristics of its Missoula customers. The ability to assign costs on the basis of customer responsibility is a commendable goal; when metering is more extensive in Missoula, the Company will be more nearly able to reach that goal. In addition, the customer will be able to influence his bill through conservation efforts.

SERVICE REGULATIONS

74. Through his testimony, Mr. Leuschen, manager of the Missoula Division of the Montana Power Company, recommended nineteen amendments to the utility's water service regulations. The changes were largely intended to clarify present rules, to eliminate outdated rules and to encourage the conservation of water.

75. The Commission finds each of the proposed amendments warranted in defining the conditions under which service is rendered to customers.

CONCLUSIONS OF LAW

1. The Montana Power Company is a public utility supplying water service to customers in the State of Montana. This Commission has jurisdiction over the rates and charges for and the conditions under which utility service is rendered in Montana.

2. The rate base determined in Finding of Fact No. 22 reflects the original cost depreciated of Applicant's water utility plant allocated to Missoula operations. These values comply with the requirement of R.C.M. 1947, Sec. 70-106, that the value placed upon a utility's property for rate making purposes "shall not exceed the original cost of the property".

3. Use of an average rate base is the appropriate means of measuring the value of Applicant's properties at risk during the test period. In addition, average rate base values permit a better matching of test year revenues and expenses to the properties which produced them than do yearend values.

4. The rate of return allowed in this order meets the constitutional requirement that a public utility's return must be "commensurate with the returns on investments in other enterprises having corresponding risks and sufficient to ensure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital". Federal Power Commission v. Hope Natural Gas Company 320 U.S. 591, 603 (1944). It likewise complies with the dictates of R.C.M. 1947, Sec. 70-105, which pro-

vides that a public utility has the right to receive a fair return on the value of its property used in service.

5. A test year based on recent historical operating results adjusted for known and measurable changes is a reasonable means of determining the utility's revenue deficiency.

6. The rate spread and rate design authorized herein are justified.

7. The rates and charges authorized herein are just and reasonable.

8. The rate structures authorized herein are nondiscriminatory.

ORDER

THE MONTANA PUBLIC SERVICE COMMISSION ORDERS THAT:

1. The Montana Power Company shall file rate schedules designed to produce a revenue increase of \$787,198 for its Missoula water customer; which includes revenues already granted as temporary increases under Order No. 4417a. Tariff schedules filed pursuant to this Order shall be effective upon their approval by the Commission.

2. The increased revenues authorized herein shall be distributed among tariffed services as follows:

(a) The rate schedules for metered-general service, unmetered-residential domestic and unmetered-commercial industrial

shall be implemented at the full levels requested in the utility's application.

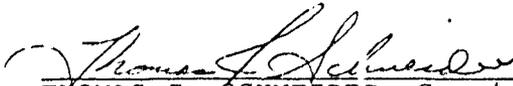
- (b) With the exception noted in (a), all other classes of service shall have their rates raised by 52.9 percent of the proposed increase as described in Findings of Fact No. 63 and 69.

3. Those changes in rules and regulations for water service proposed by the Montana Power Company are herein APPROVED.

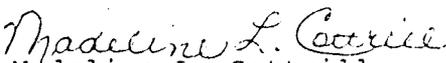
4. All motions and objections not ruled upon at the hearing are denied.

IT IS FURTHER ORDERED, pursuant to ARM 1-1.6(2)-P6190, that this is a proposed order. Any party shall have the opportunity to file exceptions to this initial decision, present briefs and make oral arguments before the entire Commission, provided such exceptions are presented to the Commission within twenty (20) days from the service date of this proposed order and briefs opposing exceptions filed ten (10) days thereafter.

DONE AT Helena, Montana, this 28th day of July, 1978.


THOMAS J. SCHNEIDER, Commissioner
and Hearing Examiner

ATTEST:


Madeline L. Cottrill
Commission Secretary

(SEAL)