

Decision No. 14022

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA.

MODOC COUNTY DEVELOPMENT BOARD, )  
Complainant )

vs. )

ALTURAS ELECTRIC POWER COMPANY )  
Defendant )

Case Number 1889

ORIGINAL

In the Matter of the Application )  
of ALTURAS ELECTRIC POWER COMPANY )  
for the establishment of just and )  
reasonable rates. )

Application Number 9926

Oscar Gibbons for Modoc County Development Board  
S. E. McCartney for Nevada California Oregon Railway  
I. W. Gibbins for Alturas Electric Power Company

BY THE COMMISSION :

OPINION

In Case Number 1889 Modoc County Development Board alleges that the service rendered by the Alturas Electric Power Company is inadequate and unsatisfactory and that the rates are excessive. The suggestion is made that the electric transmission line of the Pacific Gas and Electric Company should be extended from the vicinity of Fall River Mills to Alturas and that Alturas and Vicinity be supplied with electric energy by the Pacific Gas and Electric Company.

In Application Number 9926 the Alturas Electric Power Company asks for the establishment of just and reasonable rates.

The two proceedings were set down for hearing at Alturas on July 16, 1924.. At such hearing the two matters were consolidated for hearing and decision.

Alturas Electric Company owns a hydro-electric power plant on Pine Creek about six miles southeast of Alturas, Modoc County. Water is diverted from Pine Creek about five miles above the power plant by means of a timber crib, rock filled dam. The conduit consists of 3,000 feet of wood stave pipe, 1,000 feet of flume and 14,000 feet of ditch. The forebay, which has an approximate capacity of 100 acre feet, serves to a limited extent as a storage reservoir and provides ample regulation for the daily fluctuation in load. The plant operates under a head of 375 feet, the equipment consisting of a Pelton type wheel, three nozzles, capable of developing about 200 horse power and a 300 kilowatt 6600 volt Allis Chalmers generator. Excitation is provided by a small generator driven by a Knight water wheel. The penstock averages 24 inches in diameter, the upper 3200 feet being wood stave pipe and the balance, 2200 feet, being double riveted steel pipe. Electric energy is transmitted to Alturas at 6600 volts where it is distributed. Electric energy is also delivered at the plant to the Surprise Valley Electric Light and Power Company for distribution in the town of Cedarville.

The record clearly shows that the service rendered by the Alturas Electric Power Company has not been satisfactory for several years past. Though representatives of the company held that to some extent apparent faulty service was caused by lack of proper consumers' equipment, they admitted a fluctuation in the voltage, a lack of capacity, interruptions in service caused by leaks in the penstock or ice filling the open ditch. To remedy the situation, the Modoc County Development Board urges that the generating plant of the Alturas Electric Power Company be abandoned and Alturas supplied with electric energy by the Pacific Gas and Electric Company. To supply Alturas, the Pacific Gas and Electric Company would have to build about 70 miles of transmission line through sparsely settled territory. The cost of the line with necessary transformers, has been estimated by Charles Grunsky, an assistant engineer for the Railroad Commission, at at least \$100,000.

The cost of the Alturas electric distributing system, he estimates at about \$28,000.

The alternative to the extension of the Pacific Gas and Electric Company lines is the rehabilitation of the present generating plant of Alturas Electric Power Company. This involves, according to I. W. Gibbins, General Manager for the company, the installation of an additional water wheel in the existing power plant, the repair of the wood stave penstock, replacing part thereof with steel pipe and providing additional storage or, as an alternative to increasing the storage, replace the open conduit above the forebay in such manner that the flow of the water would not be interrupted through freezing.

It must be evident to all that continuous electric service to Alturas and vicinity can be assured only by two separate adequate sources, and cannot be realized through placing entire reliance on either an extension of the lines of the Pacific Gas and Electric Company or on the power plant of the Alturas Electric Power Company, even though such plant is completely rehabilitated. The Commission feels that rates necessary to provide two sources of power would be prohibitive. For this reason, as well as in the interest of the conservation of electric energy, it is believed that the plant of the Alturas Electric Power Company should be rehabilitated. Had this plant been in the condition that it should be, the company would in the past have been in a position to take care of all demands for electric power. With proper rehabilitation the output of the plant can be increased by approximately fifty per cent, which should enable the company to furnish Alturas and vicinity with an adequate supply of electric energy. The company will be required to forthwith proceed with the installation of the following improvements:

1. Repair the wood stave pipe portion of the penstock and replace at least 1,000 feet of such wood stave pipe with steel pipe.
2. Replace the open conduit for approximately 12,000 feet below diverting dam with pipe or its equivalent.

3. Install additional water wheel so that the full rated capacity of the present generator can be developed.

The inability of the company to sell bonds is not sufficient reason for the postponement of installing the necessary improvements. If the company is not able to develop an adequate supply of electric energy it cannot expect the Commission to protect it against competition.

Taking up the question of rates of the Alturas Electric Power Company: The Commission's Exhibit Number 1, prepared by Charles Grunsky, shows a total historical reproduction cost new of the company's properties as of April 30, 1924, of \$106,426.00. This figure includes no allowance for intangible elements of value. Neither representatives of complainants nor of the company question the correctness of the Commission's Exhibit Number 1. The valuation of the properties as shown in said exhibit follows:

<u>Table Number 1.</u>	
Electric Capital - Alturas Electric Power Company.	
Landed Capital, . . . . .	\$ 200.00
Production Capital. . . . .	70,782.00
Transmission Capital. . . . .	3,710.00
Distribution Capital. . . . .	28,380.00
General Capital . . . . .	<u>3,354.00</u>
Total Capital. . . . .	<u>\$106,426.00</u>

To such historical reproduction cost new estimates should be added \$1,000.00 for materials and supplies and \$1,500.00 for working cash capital. It is estimated that the improvements which the company is directed to install will cost about \$20,000.00. In determining the portion of this amount which will be included in the rate base, consideration was given to the increased revenues resulting from additional business, the replacement of property included in the \$106,426.00 and to the economy of operations that should result from the expenditures. The sum of \$10,000. will at this time be added to the \$106,426.00. Making the several additions to the historical reproduction cost new of the

the physical properties results in a total rate base of \$118,926.00, as shown by Table No. II, following:

TABLE No. II

Rate base - Alturas Electric Power Company.

Present plan investment . . . . .	\$106,426.00
Working cash capital. . . . .	1,500.00
Materials and supplies. . . . .	1,000.00
Sub-total.....	\$108,926.00
Allowance for new work. . . . .	10,000.00
Total rate base.....	\$118,926.00

A return of eight per cent on the rate base is allowed in the rates herein established. Such return, however, is subject to two deductions:

1st: Until such time as the company has installed the improvements referred to in this decision, the consumers will be allowed a discount of five per cent on their bills.

2nd: Out of the allowance as a return on the rate base, the company must pay interest at the rate of six per cent per annum on the balance in its depreciation reserve. The remainder may be distributed as interest on debt, used to amortize debt discount and expenses, pay dividends, or used as additions to surplus.

Based upon an examination of the company's books, Charles Grunsky testified that the reasonable operating expenses for a normal year of the Alturas Electric Power Company will be \$12,400. This figure includes allowances of \$1,750. for depreciation annuity and \$2,000. for taxes. The detailed amounts, as set forth in Table No. III following, together with the expenses as reported by the company for the year 1923, are:

TABLE No. III

Operating expenses - Alturas Electric Power Company.

	As reported for 1923	As found reasonable
Production,	\$2,713.00	\$3,000.00
Transmission & Distribution,	1,142.00	850.00
Commercial,	--	1,000.00
Salaries & Expenses gen.officers	2,160.00	2,500.00
Misc. general expenses,	2,696.00	1,200.00
Misc. general repairs,	11.00	100.00
Taxes,	1,925.00	2,000.00
Sub-total,	10,647.00	10,650.00
Depreciation,	2,280.00	1,750.00
Total,	\$12,927.00	\$12,400.00

It will be observed that Charles Grunsky's estimate of expenses, exclusive of depreciation, is substantially the same as the expenses reported for 1923. The individual accounts vary considerably, due chiefly to a reduction in certain exceptional legal expenditures necessary in 1923 and a more liberal allowance for maintenance accounts. The allowance for depreciation, which is somewhat less than that used by the company, is calculated on a 6 per cent sinking fund basis, using salvage percentages and lives which have been found to be reasonably correct. The allowance for depreciation must necessarily be somewhat increased because of the additional capital included in the rate base. It is believed that an additional allowance of \$250.00, or a total of \$2,000. as a depreciation annuity, is reasonable under the circumstances.

The company's gross revenue for 1923 is reported at \$21,196.00 and it is reasonable to expect that the 1924 revenue will closely approximate this figure. Table Number IV following shows the amount necessary as a reasonable return on the investment, depreciation and operating expenses, and gross revenues for an average year:-

TABLE No. IV.

Reasonable Gross Operating Revenue -

Alturas Electric Power Company.

	<u>With Improvements</u>	<u>Present Plant</u>
Rate base - Table No. II,	\$118,926.00	\$108,926.00
Return at 8 per cent,	9,514.00	8,714.00
Depreciation,	2,000.00	1,750.00
Total reasonable net revenue,	11,514.00	10,464.00
Operating Expenses,	10,650.00	10,650.00
Total reasonable gross revenue,	22,164.00	21,114.00
Estimated revenue from present rates,	<u>21,196.00</u>	<u>21,196.00</u>
Reasonable increase	\$968.00	\$82.00*

\* Decrease.

The preceding table indicates that an increase in rates, approximating 5 per cent, is justified at such time as the Alturas Electric Power Company has completed the installation of the improvements referred to in this decision. In view of the obsolete and inequitable character of the present rates, it appears desirable to design new rates which would

yield a gross revenue substantially 5 per cent greater than the gross revenue expected from present rates, and to place such rates in effect with a discount of 5 per cent. This procedure will result in practically the same gross revenue to the company as from the present rates, and will lend itself readily to an adjustment of the rates when the Commission finds that the company has installed the improvements contemplated.

### O R D E R

A public hearing having been held on the above consolidated matters, the Commission being apprised of the facts and the matter being under submission and ready for decision,

IT IS HEREBY ORDERED that

1. Alturas Electric Power Company charge and collect for electric service now supplied under filed schedules and special contracts, the rates set forth in Exhibit "A" attached hereto and made a part hereof.

Such rates to be filed with this Commission on or before October 1, 1924, and to become effective with meter readings taken on and after October 5, 1924, and for flat rate service delivered on and after October 1, 1924.

2. Alturas Electric Power Company shall proceed immediately to make the necessary changes and additions to the production, structures and equipment, as will substantially improve the grade of service rendered, and in line with the principles outlined in the opinion preceding this order.

3. Each year, beginning with the calendar year 1924, Alturas Electric Power Company account to its reserve for accrued depreciation for an annuity calculated in accordance with the principles followed in the opinion preceding this order and also for interest at the rate of 6 per cent per annum upon the balance of its reserve for accrued depre-

ciation on the first day of each year.

4. The effective date of this order shall be October 1, 1924.

Dated at San Francisco, California, this 8<sup>th</sup> day of

September, 1924.

CL Seaver

Iwing Martin  
Egerton Shore

W. Whittier

Commissioners.



EXHIBIT "A"

SCHEDULE L-1

(Cancelling Schedules "A" and "B")

GENERAL LIGHTING SERVICE:

Applicable to general domestic and commercial lighting service, including household appliances and single phase service to motor loads not to exceed 3 H.P. capacity.

TERRITORY:

Entire territory served by the company.

RATE:

First	7 KWH	or less	per meter	per month	. . .	\$1.50		
Next	43 "		per meter	per month	. . . . .	10¢	per KWH	
"	150 "	"	"	"	"	8¢	"	"
"	300 "	"	"	"	"	6¢	"	"
All over	500 KWH	"	"	"	"	4¢	"	"

SPECIAL DISCOUNT:

The above rates and minimum charge are subject to a 5% discount pending improvement of service and supplemental order of the Railroad Commission of the State of California.

SPECIAL CONDITIONS:

(a) Single phase motors of an aggregate capacity of 3 H.P. or less may receive service or may be combined with general lighting service under this schedule of rates at the option of the consumer; provided that, in case of combination service, the total energy is supplied through one meter.

The minimum charge applicable to this combination service is only that minimum charge as set forth above.

SCHEDULE L-2

(Cancelling Schedule "G" )

STREET AND HIGHWAY LIGHTING:

Applicable to service to existing street and highway lighting in Alturas, where fixtures are owned and maintained by the City, and necessary attachments are made to company poles.

FLAT RATE SERVICE:

<u>Lamp Rating</u>	<u>Monthly Charge per Lamp all Night Service.</u>
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Multiple Lamps:

60 watts	\$ .90
75 "	1.10
100 "	1.40
150 "	2.05
200 "	2.75
250 "	3.40
300 "	4.10

SPECIAL DISCOUNT:

The above rates and minimum charges are subject to a 5% discount pending improvement of service and supplemental order of the Railroad Commission of the State of California.

## SCHEDULE C-1.

### GENERAL HEATING AND COOKING SERVICE:

Applicable to general domestic and commercial heating, cooking and/ or water heating service.

### TERRITORY:

Entire territory served by the Company.

### RATE:

First 170 KWH per meter per month	4.0¢ per KWH
All over 170 " " " " "	2.5¢ " "

### MINIMUM CHARGE:

Fifty cents per month per kilowatt of connected load, but not less than \$3.00 per month.

When the consumer signs a contract for service for a period of one year, the minimum charges will be made accumulative for the service year. The minimum charges are payable in monthly installments until such time as the accumulative energy charges equal the accumulative minimum charges.

### SPECIAL DISCOUNT:

The above rates and minimum charges are subject to a 5% discount pending improvement of service and supplemental order of the Railroad Commission of the State of California.

### SPECIAL CONDITIONS:

(a) Connected load will be taken as the name plate rating of heating and cooking apparatus permanently installed and which may be connected at any one time, calculated to the nearest one-tenth of a kilowatt.

(b) Single phase motors aggregating 3 horsepower or less may be combined with heating and cooking under this schedule, in which case each horsepower of connected load will be considered equivalent to one kilowatt of connected load in determining the minimum charge.

SCHEDULE C-2

COMBINATION DOMESTIC SERVICE:

Applicable to domestic combination lighting, heating, cooking and small power service where consumer permanently installs and uses appliances of at least 2 KW capacity.

TERRITORY:

Entire territory served by the company.

RATE:

First	30	KWH per meter per month	12.0¢	per KWH.
Next	170	" " " " "	4.0¢	" "
All over	200	" " " " "	2.5¢	" "

MINIMUM CHARGE:

Fifty cents per month per kilowatt of connected load, but not less than \$3.00 per month.

When consumer signs a contract for service for a period of one year the minimum charges will be made accumulative for the service year. The minimum charges are payable in monthly installments until such time as the accumulative energy charges equal the accumulative minimum charges.

SPECIAL DISCOUNT:

The above rates and minimum charges are subject to a 5% discount pending improvement of service and supplemental order of the Railroad Commission of the State of California.

SPECIAL CONDITIONS:

(a) Connected load will be taken as the name plate rating of heating and cooking apparatus permanently installed and which may be connected at any one time, calculated to the nearest one-tenth of a kilowatt.

(b) Single phase motors aggregating 3 horsepower or less may be combined with heating and cooking under this schedule, in which case each horsepower of connected load shall be considered equivalent to one kilowatt of connected load in determining the minimum charge.

SCHEDULE P-1

(Cancelling Schedule "C")

GENERAL POWER SERVICE:

Applicable to general commercial and industrial power service and to commercial heating and cooking service and rectifier service.

TERRITORY:

Entire territory served by the company.

RATE:

H.P. of Connected Load	Rate per K.W.H. for monthly consumption of		
	1st 50 kWh. per H.P.	Next 50 kWh. per H.P.	All over 100 kWh. per H.P.
2 - 9 H.P.	5.0¢	4.0¢	2.0¢
10 - 24 "	4.5	3.3	2.0
25 - 49 "	3.8	2.8	2.0
50 H.P. and over	3.2	2.5	2.0

MINIMUM CHARGE:

First 50 H.P. of connected load \$1.00 per H.P. per month,  
but in no case less than \$2.00 per month.  
All over 50 H.P. of connected load \$.65 per H.P. per month.

SPECIAL DISCOUNT:

The above rates and minimum charges are subject to a 5% discount, pending improvement of service and supplemental order of the Railroad Commission of the State of California.

SPECIAL CONDITIONS:

(a) Connected load will be taken as the horsepower rating of the equipment used, which may at any one time be connected to the Company's lines, but in no case less than 2 horsepower.

(b) Any consumer may obtain the rates for a larger installation by guaranteeing the rates and minimum charges applicable to the larger installation.

## SCHEDULE P-2

### AGRICULTURAL POWER SERVICE:

Applicable to general agricultural service, including pumping, feed choppers, milking machines, heating for incubators, brooders, poultry house lighting and general farm use excluding domestic cooking and lighting service.

### TERRITORY:

Entire territory served by the company.

### RATE:

Annual de- mand charge per H. P.	Energy Charge In Addition to the Demand Charge Rate per KWH	
	for Consumptions per H.P. per year of	
	First 1000 KWH	All Over 1000 KWH
\$5.00	1.5¢	1.0¢

In no case will the demand and energy charges be based on less than 5 H. P. of connected load.

### SPECIAL DISCOUNT:

The above demand and energy rates are subject to a 5% discount, pending improvement of service and supplementary order of the Railroad Commission of the State of California.

### SPECIAL CONDITIONS:

#### (a) Payment.

The annual demand charge is payable in six equal monthly installments during the months of May to October, inclusive. The energy charge is payable monthly as energy is used.

#### (b) Service Year.

Under this schedule the service year shall commence with the regular meter reading taken in March and end with the regular meter reading taken in March of the succeeding year.

#### (c) Charges for service begun or discontinued during the service year.

When the service is first begun or permanently discontinued during the service year the demand charge will be pro-rated according to the proportion of the six months season from April 1 to September 30, during which service is taken.

#### (d) Credit for service at primary voltage.

When the consumer owns the transformers or otherwise receives service at the primary voltage, there will be allowed a discount from the annual demand charge of \$1.70 per horsepower.

SCHEDULE P-3

(Cancelling Schedule "F")

RESALE SERVICE:

Applicable to energy sold to Surprise Valley Electric Light and Power Company.

RATE:

First	5000 KWH per month	3¢	per KWH
All over	5000 KWH " "	2¢	" KWH

MINIMUM:

\$100.00 per month.

SPECIAL DISCOUNT:

The above rate and minimum charge are subject to a 5% discount pending improvement of service and supplementary order of the Railroad Commission of the State of California.

SPECIAL CONDITIONS:

Energy to be metered at power plant switchboard.