

Decision No. 12683

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA

ORIGINAL

In the Matter of Application of Coast Valleys)
Gas and Electric Company for an interpretation)
of Contract between Sierra and San Francisco)
Power Company and Coast Valleys Gas and Elec-)
tric Company; and for a determination of the)
conditions of service to be rendered by)
Pacific Gas and Electric Company, Lessee of)
Sierra and San Francisco Power Company to)
Coast Valleys Gas and Electric Company under)
said Contract.)

Application No. 8634

In the Matter of the Application of PACIFIC)
GAS AND ELECTRIC COMPANY, a corporation, for)
an order of the Railroad Commission of the)
State of California fixing and establishing)
the rates, terms and conditions under and in)
accordance with which applicant shall furnish)
and supply electric service to the Coast)
Valleys Gas and Electric Company for resale)
purposes.)

Application No. 8645

James F. Pollard for Coast Valleys Gas and Electric Company
C.P. Cutten for Pacific Gas and Electric Company.

BY THE COMMISSION:

O P I N I O N

These applications involve the rates and conditions of service affecting the wholesale delivery of electrical energy by Pacific Gas and Electric Company, lessee of the system of Sierra & San Francisco Power Company to Coast Valleys Gas & Electric Company, for distribution and resale.

For convenience Pacific Gas & Electric Company will hereinafter be referred to as "Pacific Company", Sierra & San Francisco Power Company as "Sierra" and Coast Valleys Gas & Electric Company as "Coast Valleys".

The Sierra system as involved in this matter consists of certain hydro electric plants located along the Stanislaus River and the Tuolumne River, having a total capacity of approximately 36,000 k.w., a 104,000 volt steel tower transmission line approximately 135 miles long to San Francisco where there is situated a steam generating plant of approximately 27,000 k.w. capacity. About 100 miles from the hydro electric plants the transmission line is tapped at a point known as Port Marion and a 55,000 volt transmission line supported partly on wood poles and partly on steel towers extends about 75 miles to Salinas, where delivery is made to the Coast Valleys. This transmission line is devoted entirely to the service of the Coast Valleys and two other large consumers.

Coast Valleys transmits energy from Salinas 15 miles westerly to Monterey and 45 miles southerly to King City and operates distribution systems supplied from sub-stations located along the two transmission lines. Small steam plants are operated for standby purposes at Monterey, Salinas and King City, but almost all energy required is purchased. The peak load of the Coast Valleys is in the neighborhood of 7000 k.w. and its annual consumption of energy close to 20,000,000 k.w.h.

The delivery of this energy is made under a contract dated January 2, 1913, between the Coast Valleys and the Sierra, into which the Pacific Company entered on January 1, 1920 as lessee of the Sierra property. The principal provisions of the contract were that the Sierra was to loan to the Coast Valleys free of charge, certain sub-station transformers, that energy should be delivered at 55,000 volts with a permissible range of $2-1/2\%$ plus or minus, that during such times as Sierra might be unable to deliver energy it would bear certain of the costs of operation of Coast Valleys steam plants, that the rate for service expressed in cents per Kilowatt hour should be 1.3 less the monthly load factor expressed as a decimal and that at certain intervals this rate should be subject to readjustment. Since

the execution of this contract, the Sierra and the Pacific Company, as lessee of its system, have both applied to this Commission for authority to increase their rates to meet increased cost of operation and such increases as have been authorized have applied to this contract as well as to the rates charged other consumers. The contract rate has not been otherwise modified.

By Decision #11457 dated December 30, 1922, this Commission eliminated temporary increases in rates which had theretofore been granted, and fixed new schedules applicable to all classes of service supplied by the Pacific Company. One of these schedules applies to service of the character delivered to the Coast Valleys but the Pacific Company and the Coast Valleys are unable to agree as to the extent to which the original contract and rate provided therein are superseded or modified by this schedule.

In application No. 8645 the Pacific Company alleges that the two companies are unable to agree upon the character of service that should be supplied and the charges to be made for it and asks that the Railroad Commission fix the rates and conditions of service. Application No. 8634 of the Coast Valleys is substantially the same, for while certain specific relief is requested, the Commission is also asked to grant such other and different relief as it may find just and reasonable.

It is at once apparent that the rate to be charged for a given service and the conditions and quality of that service must go hand in hand. In this case the Commission has already, after full consideration, established a uniform rate to be charged by the Pacific Company for electric service for resale purposes and it seems that the question now raised by the two parties in this proceeding may be best answered by fixing corresponding conditions of service. Such conditions as may be here fixed will, of course, apply specifically only to the delivery now under consideration but

it is desirable that they conform to the general requirements affecting other similar deliveries of energy.

Considering the matter in its general aspect and passing for the moment the question of the division of ownership, we have a large system of generating plants, transmission lines, sub-stations and distributing lines all used in the production of steam and hydro-electric energy and in its transmission and delivery to the ultimate consumer. Adequate facilities must be provided in this system in order that the consumers may receive the proper quality of service, and the most advantageous location of certain of these facilities is determined by engineering and economic consideration. It is clear that in spite of the division of ownership, service can be supplied to the ultimate consumer at the least total cost when such facilities are most economically located.

In the particular case now before us, one of the principal sources of argument is the question of voltage regulation. Energy is not delivered by the Pacific Company at each of the Coast Valleys' sub-stations, but is delivered to the Coast Valleys transmission line, and consideration must therefore be given to the voltage regulation of the transmission lines between the points of delivery and the sub-stations.

After an investigation by our Engineering Department into the operating practices of other large power systems in the State and the character of apparatus in use, we have come to the conclusion that the total daily variation in voltage as measured at the points of delivery should not exceed fifteen per cent. The construction of the sub-station transformers is such, however, that an additional change in voltage amounting to ten per cent of normal may be compensated for, provided opportunity is given for the making of necessary changes in high voltage connections. The making of such changes must be limited to the occasions when they are necessary to compen-

sate for seasonal rather than daily changes in load conditions, and provision will therefore be made in the Order accompanying this Opinion for a seasonal variation in the normal voltage.

The investigation by the Commission's engineering department since the submission of evidence, indicates that the design of the transmission line and the choice of the transformers at Port Marion sub-station, taken in connection with present load conditions, will make it exceedingly difficult for the Pacific Company to maintain a minimum voltage within 7-1/2% of the voltage of 55000 specified in the original contract. As the load continues to increase, it will probably become impossible to meet the requirements now laid down without the installation of additional facilities. It appears, however, that the obligation to cope with the increasing demands made upon the line, is upon the Sierra as the owner or the Pacific Company as the lessee, rather than upon the Coast Valleys as a user from the line. We will therefore adopt as a normal voltage for this service, the voltage that was agreed upon by the Sierra and Coast Valleys at the time the line was constructed.

We are convinced that the operating department of the Pacific Company is making an earnest effort to supply the Coast Valleys with the best possible service, and it appears from the evidence that during the past year service has been generally satisfactory. During previous years, however, there has been just cause for complaint on the part of the Coast Valleys and as its load grows and the facilities of the Pacific Company become taxed, there is danger that these troubles may be renewed. In order that the rate paid may be commensurate with the quality of service supplied and that the Coast Valleys may be partially protected against increased costs of operation occasioned by poor service, discounts will be made applicable during any periods when service does not comply with the standards herein established.

The agreement of January 2, 1913, called for the delivery of energy at Salinas, and at that time a single circuit was constructed to that point from Port Marion. When a second circuit was proposed in 1919, an agreement was reached whereby the Sierra and the Pacific Company as lessee of its system, furnished the same amount of material and labor that would have been needed to build this second circuit to Salinas, but by following a different route, connection was made at a more advantageous point in the Coast Valleys system known as Alisal. The Coast Valleys now asks that for purposes of measurement, these two points of delivery be considered as one. The Pacific Company concedes the reasonableness of this request and the Order accompanying this Opinion will so provide.

The rate under which the Coast Valleys will hereafter be charged for service is based upon the delivery of energy at high tension voltage, and it is not contemplated that the selling company will furnish transformers. The use by the Coast Valleys of the sub-station transformers specified in the agreement of January 2, 1913, is therefore a service not normally covered by this rate, and additional compensation should be provided if this use is to continue. Provision should be made for the purchase or surrender of these transformers by the Coast Valleys or for the payment of a reasonable rental therefor.

We will not, at this time, consider in detail the facilities which will have to be installed by the Pacific Company in order to comply with the standards of service herein established, nor by the Coast Valleys in order to give adequate service to its consumers, but upon the failure of either party to render a proper quality of service, the matter will be reopened for further Order should the same appear necessary.

O R D E R

Coast Valleys Gas and Electric Company and Pacific Gas & Electric Company having applied to the Railroad Commission for an Order fixing and establishing the rates, terms and conditions under and in accordance with which electric service for resale purposes shall be supplied to Coast Valleys Gas & Electric Company by Pacific Gas & Electric Company, as lessee of the system of Sierra & San Francisco Power Company, a Public Hearing having been held, the matter being submitted and now ready for decision,

IT IS HEREBY ORDERED THAT:-

(1) For the purposes of billing, electric power and energy delivered to Coast Valleys Gas & Electric Company at Salinas and at Alisal shall be considered as delivered at one point.

(2) The normal voltage at which said electric energy is to be delivered, shall be fixed by Pacific Gas and Electric Company between 55,000 and 60,000 volts, provided that on not less than five days notice and not oftener than four times each calendar year, except by mutual agreement, Pacific Gas and Electric Company may change the normal voltage within these limits.

(3) Pacific Gas and Electric Company shall at all times maintain the voltage of its transmission lines at Salinas and at Alisal within 7-1/2 per cent of the normal voltage in effect at the time as provided in Section 2 of this Order.

(4) Effective January 1, 1924, the rates and charges to be paid by Coast Valleys Gas and Electric Company for electric energy delivered to it at Salinas and Alisal by Pacific Gas and Electric Company, lessee, shall be as set forth in Schedule P-6 of Pacific Gas and Electric Company as established by Decision No. 114567 of this Commission modified by the reduction of the "Demand Charge" by one-tenth cent per Kilowatt of maximum demand for each minute of the duration of all total interruptions in delivery of energy at both Salinas and Alisal exceeding ten minutes each, and further modified

by reduction of the energy charge by one-quarter cent per Kilowatt hour during each hour during which for fifteen or more consecutive minutes the voltage at which such energy is delivered departs more than seven and one-half per cent but less than ten per cent from normal and by one-half cent per Kilowatt hour during each hour during which for fifteen or more consecutive minutes such voltage departs more than ten per cent from normal, provided that no modification of rate shall be made because of interruptions or abnormal voltage occurring on Sundays or holidays or between the hours of midnight and six A.M. if the same be wholly or partially due to the prosecution of repair or construction work upon any part of Pacific Gas and Electric Company's electric system and if Pacific Gas and Electric Company shall have given Coast Valleys Gas and Electric Company three days advance notice of such work and of the probability of such interruption or abnormal voltage, nor shall there be included in the duration of any interruption or period of abnormal voltage upon which modification of rate is based any time during which Coast Valleys Gas and Electric Company shall fail or be unable to receive energy which Pacific Gas and Electric Company is able to deliver to it.

(5) From February 1, 1923, to January 1, 1924, Coast Valleys Gas and Electric Co. shall pay for electric energy delivered to it by Pacific Gas and Electric Co. the rates and charges set forth in said Schedule P-6.

(6) Unless Coast Valleys Gas and Electric Company shall elect to surrender the use of the sub-station transformers loaned to it by Sierra and San Francisco Power Company, in accordance with the terms of their agreement of January 2, 1913, or shall purchase said transformers from Pacific Gas and Electric Company, lessee, at a price to be mutually agreed upon, Coast Valleys Gas and Electric Company shall pay as rental for the use of said transformers, an

annual sum equivalent to ten per cent of the investment in said transformers, and shall also pay all costs of operation and maintenance, such payments of rental and operating and maintenance costs to date from January 1, 1924.

(7) The effective date of this order shall be November 1, 1923.

Dated at San Francisco, California, this 4th day of October, 1923.

C. Seary

Egerton Shore

J. Whitting

Commissioners.