

Decision No. 21311.

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA.

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, granting to applicant a certificate of public convenience and necessity to construct the gas transmission lines and system therein described.

ORIGINAL

Application No. 15602.

C. P. Cutten, for Applicant.  
 John J. O'Toole, City Attorney, and  
 Dion R. Holm, Special Counsel, for  
 the City and County of San Francisco.  
 Preston Higgins, City Attorney, for  
 City of Oakland.  
 E. J. Sinclair, City Attorney, for City  
 of Berkeley.  
 C.W. White, City Attorney, for City of  
 Hayward,  
 Norman E. Malcolm, City Attorney, for  
 City of Palo Alto.  
 Archer Bowden, City Attorney, for City  
 of San Jose.  
 D. T. Jenkins, City Attorney, for City  
 of Los Gatos.  
 J. E. McCurdy, City Attorney, for Cities  
 of San Mateo and Daly City.  
 William J. Locke, City Attorney, for  
 City of Alameda.  
 T. M. Carlson, City Attorney, for City  
 of Richmond.  
 L. D. Bohnett, for City of Willow Glen.

SEAVEY, COMMISSIONER:

O P I N I O N

In this application, Pacific Gas and Electric Company asks the Railroad Commission of the State of California for an order certifying that present and future public convenience and necessity requires applicant to construct and operate the natural gas transmission line project described in the application and authorizing the exercise of permits and franchises in

connection therewith.

It appears from evidence presented at public hearings held at San Francisco, California, on May 22nd and June 5th, 1929, and also from the results of investigation by the Commission's engineers, that there now exists, and for many years will exist, a potential source of large quantities of both dry and casing-head natural gas in the Buttonwillow and Kettleman Hills Districts in the Counties of Fresno and Kings. Both of these areas have been proven as sources of natural gas by the completion and operation of flowing wells. The Milham Elliot No. 1 well in Kettleman Hills is producing in excess of 80,000,000 cu. ft. per day of 1200 B.t.u. gas and the estimated potential production of the seven Milham dry gas wells at Buttonwillow is in excess of 30,000,000 cu. ft. per day of 960 B.t.u. gas.

The history of many of the oil fields that have been developed in California in the past shows that such development has been accompanied by the wastage of large quantities of this valuable resource. This is particularly true of fields in which high initial gas pressures existed, such as in the case in the above mentioned areas.

The utilization of substantial quantities of this natural gas by means of the economic installation of transmission lines for its transmission to depleted fields for storage, and to established and potential markets for distribution as fuel, is of importance from the standpoint of conservation and economy.

With the expansion of the natural gas industry in California, the conservation of this natural resource becomes more and more a vital necessity to the life of such industry. In order that the best interests of all of the consumers of the state be served, it is deemed highly essential that the increasing utilization of this commodity be conducted in an orderly and economical manner,

and that unreasonable duplication of facilities and preventable wastage of natural gas, be avoided.

These conditions can best be secured by the installation and the most efficient use of the minimum number of transmission facilities, the total capacity of which will adequately meet the demands of the present market, and the anticipated demands of the future market for several years to come.

In order that the most economical utilization be made of such transmission facilities, it is essential that operating agreements be entered into between utilities and producers and between the utilities themselves, of such a nature and of such flexibility, that the gas may be exchanged, substituted, transmitted, transported, allocated or dispatched in the most economical and efficient manner, for the benefit of all concerned. Appropriate provisions looking to this end will be included in the order.

Evidence presented at the above mentioned hearings shows that the applicant has entered into natural gas purchase contracts with the Milham Exploration Company, the Texas Company, and the Standard Oil Company, operators in the Buttonwillow and Kettleman Hills Fields, covering the purchase and sale of quantities of natural gas adequate to meet its estimated demands, at rates that are comparable to the rates charged to other utilities in other California fields.

The proposed natural gas transmission line project as set forth in applicant's petition, the construction of which applicant has now well under way, will consist of a single welded main transmission line from Buttonwillow to Milpitas, with branch lines from Milpitas to San Francisco and from Milpitas to Oakland, said lines traversing the Counties of Kern, Kings, Fresno, San Benito, Santa Clara, Alameda, San Mateo and the City and County of San Francisco. With the exception of certain portions in the County of Santa Clara applicant proposes to install the main pipe line on private rights.

of way.

The dimensions and approximate lengths of the various sections of the proposed lines which would have an initial delivery capacity of 70,000,000 cu. ft. of natural gas per day are as follows:

Buttonwillow to Kettleman Hills,	16 inch - 45 miles.
Kettleman Hills to Panoche Pass,	22 " - 45 "
Panoche Pass to Milpitas,	20 " - 107 "
Milpitas to Oakland,	20 " - 35 "
Milpitas to San Francisco,	20 " - 40 "

In addition to the main line, the project contemplates the installation of collecting lines, metering stations, compressor stations, terminal connections and facilities, and two additional natural gas storage holders, one of 10,000,000 cu. ft. capacity at San Francisco, and one of 8,000,000 cu. ft. capacity at Oakland.

The estimated cost of the project as set forth in the application would be \$13,100,000.00, segregated as follows:

Main Line,	\$9,550,000.00
Collecting Lines and Metering Stations,	750,000.00
Terminal Connections and Facilities,	650,000.00
Compressor Stations,	900,000.00
Storage Holders,	<u>1,350,000.00</u>
TOTAL,	\$13,100,000.00

The portions of applicant's gas distribution system that would be affected by the installation of this project are known as the San Francisco, East Bay and San Jose Divisions. At the present time there is being served to the consumers in these divisions, a manufactured oil gas with a heating value of approximately 550 B.t.u. per cubic foot.

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In the event that certificate were granted to install and operate the natural gas transmission line project set forth in applicant's petition, the plan would be to replace the present 550 B.t.u. oil gas service with the service of 700 B.t.u. mixed gas, produced at applicant's San Francisco, Oakland and San Jose manufacturing plants through the "reforming" or "cracking" of a portion of the natural gas to a "reformed" gas, and the mixture of this "reformed" gas with a sufficient quantity of straight natural gas to produce a mixed gas of 700 B.t.u. quality. This mixed gas would be utilized for domestic, commercial and some industrial sales, and in addition thereto straight natural gas would be sold for industrial purposes in competition with fuel oil and other fuels.

Testimony was introduced by applicant at the above mentioned hearings, to show that the increase in heating value of the gas from 550 to 700 B.t.u. per cubic foot (27.3%) would result in a reduction in volumetric sales corresponding to the inverse ratio of the heating values of the gases, or a volumetric reduction of 21.4%. Upon this basis claim was made by witnesses that the saving to consumers and consequent loss of revenue under a new schedule of rates proposed by the company would approximate \$1,900,000.00 during the first year of mixed gas service.

The Commission's engineers introduced testimony, to the effect that in the case of the Santa Barbara District, Southern Counties Gas Company made this same identical change in the heating value of the gas served, changing from a 500 B.t.u. oil gas to a 700 B.t.u. mixed gas in November, 1923. The utility continued to serve 700 B.t.u. gas under the same volumetric rates that had been applied to the sale of 500 B.t.u. oil gas. The

seasonal temperatures—during the twelve months succeeding the change followed closely those of the twelve months preceding the change so that from the standpoint of temperature, the sales per meter per month, or per year, were comparable.

As set forth in Commission's Exhibit No. 5, the volumetric sales per meter during the year following the change at Santa Barbara instead of being reduced by 21.4% due to the increase in heating value of the gas were reduced by only 12.04%.

Estimates prepared and submitted by the Commission's engineers also indicate that applicant can serve 700 B.t.u. mixed gas in lieu of the present 550 B.t.u. oil gas in the above mentioned divisions, and that at the present volumetric rates, the estimated domestic and commercial revenue, exclusive of industrial business, would yield a return of 7.4% upon the estimated historical rate base of these divisions.

#### O R D E R

Pacific Gas and Electric Company having applied to the Railroad Commission of the State of California for an order certifying that present and/or future public convenience and necessity requires and will require the granting to applicant of authority to construct, operate, maintain and use a natural gas transmission line project and the exercise of all permits, easements and franchises used or useful in connection therewith:

Public hearings having been held, the matter being submitted and now ready for decision:

The Railroad Commission of the State of California hereby certifies and declares that public convenience and necessity require and will require:

The construction, maintenance and use by Pacific Gas and

Electric Company of California of a natural gas transmission line project and its appurtenances from Buttonwillow Fields in Kern County to Milpitas in Santa Clara County, branch lines from Milpitas to applicant's gas generating and manufacturing plants in the City of Oakland, Alameda County, and in the City and County of San Francisco, and branch lines from the main line to the City of San Jose, and other small communities adjacent to said main line, for the transmission of natural gas, and the exercise of all permits, easements and franchises used or useful in connection therewith.

The authorization herein granted is subject to the following conditions and not otherwise:

- (a) That all of the natural gas transported by means of said pipe line or pipe lines shall be disposed of, allocated and distributed in accordance with the orders of this Commission.
- (b) That applicant shall, when transmission line and compressor capacities permit, transmit natural gas for other utilities, the volumes of gas thus transported and the transportation charges made therefor being subject to the approval of this Commission.
- (c) That no natural gas transported through said pipe line or pipe lines shall be delivered or sold for re-sale except under such conditions as may be specifically approved by this Commission.
- (d) Lines shall not be constructed or operated in the County of Santa Clara unless and until Pacific Gas and Electric Company of California shall file with this Commission certified copies of all necessary franchises to lay and operate its natural-gas transmission lines in said county.

(e) Pacific Gas and Electric Company of California shall file with this Commission a stipulation duly executed on authority of its Board of Directors agreeing that it will never claim for any of the permits, easements and franchises used in connection with this project, a value in excess of the cost thereof.

(f) Upon the filing of the franchises and stipulation referred to in paragraphs (d) and (e), in the proper form, the Commission will issue its supplemental order authorizing the exercise of rights conferred by such franchises. Said franchises and stipulation shall be filed on or before August 31, 1929.

The authorization herein granted, except as otherwise specifically provided, shall be effective from and after the date of this order.

For all other purposes the effective date of this order shall be twenty (20) days from and after the date thereof.

The foregoing opinion and order are hereby approved and ordered filed as the opinion and order of the Railroad Commission of the State of California.

Dated at San Francisco, California, this 1st day of July, 1929.

Wm. J. Cunn

Wm. J. Cunn

Wm. J. Cunn

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Commissioners.