

ORIGINAL

Decision No. ~~24797~~

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA

Investigation of Gas Utility Schedules,
Rules, Regulations and Contracts, re-
lating to sale of surplus natural gas.

Case No. 4591

- Alfred L. Black, Jr., and Joseph T. Enright, for Monolith Portland Cement Company.
- LeRoy M. Edwards and Thomas J. Reynolds, for Southern California Gas Company, Southern Counties Gas Company of California and Santa Maria Gas Company.
- L. M. Klauber and A. E. Holloway, for San Diego Gas and Electric Company.
- William W. Clary, Loren M. Wright and O'Melveny and Myers for Johns-Manville Company and Riverside Cement Company.
- T. A. Hunter, for Weber Baking Co., Los Angeles; Weber Baking Co., Glendale; Weber Baking Co., Santa Ana; Weber Baking Co., Santa Barbara; Log Cabin Bread Co., Los Angeles; Four S Baking Co., Los Angeles; Cramer Baking Co., San Diego; Cramer Baking Co., El Centro; Warner Bros. Pictures, Burbank; Paramount Pictures, Hollywood; Universal Pictures, Universal City; Columbia Pictures, Hollywood.
- George E. Kingsley and H. R. Brashear, for the Los Angeles Chamber of Commerce.
- Malcolm E. Stewart and L. H. Stewart, for California Cotton Oil Corporation, Los Angeles; J. G. Boswell Co., Corcoran; Kingsburg Cotton Oil Co., Kingsburg; H. Moffatt & Co., San Francisco; Watsonville Laundry Co., Watsonville; American Crystal Sugar Co., Oxnard; Coast Ice Cream Co., Southgate; Pratt-Low Preserving Co., San Jose; California Pottery Co.
- W. D. MacKay, for Commercial Utility Service, Los Angeles and San Francisco; representing a large number of surplus industrial gas consumers in both southern and northern California.
- W. A. Maloney, for Consolidated Aircraft Corporation, San Diego, California.
- Benjamin S. Cooper, V. O. Conaway, for National Supply Company, Willys Overland Motors, Incorporated, Plomb Tool Company, Louis Deckert Brewing Company.
- L. H. Wolters, for Golden State Company, Limited.
- Ralph Edington, for Los Angeles Brick Exchange.
- Robert B. Murphey of the firm of Call, Murphey & Davis, for Gladding-McBean & Company.
- Edward R. Young, for Vernon Industrial Development Association and for various non-members as follows:
Members: Kennedy Name Plate Co., Wayne Pump Co., Central Manufacturing District, Inc., Mechanical Foundries, Inc., B. T. Rabbitt-Holly Products Corp., U. S. Spring & Bumper Co., Boyle Manufacturing Co., American Can Co. and Vitrefrax Corporation.

Non-members: L. A. Young Spring & Wire Corp., Calif. Flaxseed Products Co., So. Calif. Meat Co., L. A. Sausage Co., Norris Stamping & Manufacturing Co., Frito Co. of California, Mullenbach Electric Manufacturing Co., Doyle Packing Co., Baker Oil Tool Co., L. A. Rubber & Asbestos Works, Chas. E. Hires Co., Western Machinery Co., Cole of California, Inc. and Western Washer & Manufacturing Co.

Thomas D. Cassidy, City Attorney, for the City of Vernon.
 R. R. Free, for California Carbonic Company.
 Ray L. Chesebro, City Attorney, Gilmore Tillman, Assistant City Attorney, K. Charles Bean, Chief Engineer and General Manager of the Board of Public Utilities and Transportation and H. W. Kauffman, Assistant Engineer, Board of Public Utilities and Transportation, for the City of Los Angeles.
 J. J. Stern, for the California Pottery Guild, Los Angeles, Calif.
 Carl E. Brocks, National Biscuit Company.
 Daniel W. Gage, for Adel Precision Products, Burbank, California.
 F. F. Edson, for the A. R. Maas Chemical Company.
 Jacob Z. Goldberg, for Western Pipe & Steel Company, Vernon, Calif.
 E. E. Indermark, for Mississippi Glass Company, Fullerton, Calif.
 Frank B. Hartung, for Owens-Illinois Pacific Coast Co.
 Lewis Kogh and E. F. Gould, for the Anaconda Wire & Cable Co.
 L. E. Evans, for Harmony Valley Creamery Association.
 A. J. McDonald, for McDonald Glass Co.
 L. W. Klossner, for General Cable Corporation.
 T. M. Goodrich, for Light and Power Department, City of Pasadena.
 V. G. Lucas, for the Lucas Ranching Company.
 William R. Monette, for the Dicalite Company.
 Theodore E. Fisher, for the El Tejon Oil & Refining Co.
 Earl Glenn Whitehead, for Pathfinder Petroleum Co. and El Camino Refining Co.
 R. W. DuVal, for Pacific Gas and Electric Company.
 H. G. Hayes and Charles Grunsky, for Coast Counties Gas and Electric Company.
 J. J. Deuel, for California Farm Bureau Federation.
 John J. O'Toole, City Attorney, Dion R. Holm, Assistant City Attorney, and Paul L. Beck, Chief Valuation and Rate Engineer, for the City and County of San Francisco, by Mr. Beck.
 W. H. Rockingham, State Division of Architecture, State Department of Public Works, on behalf of institutions using surplus gas.
 Ramsey Moran, for French Laundry Owners Association of San Francisco.
 T. L. Black, Palo Alto Municipal Utilities.
 F. R. Pierce, American Crystal Sugar Company, Clarksburg.
 W. G. Stone, for Sacramento Chamber of Commerce.
 Thelen & Murrin, by Max Thelen, for the Permanente Corporation and Todd California Ship Building Company, Chemical Engineering Division.
 Isadore Rosenberg, Cotton Products Corporation.
 Louis Ferrari, for certain Nurserymen, users of gas.
 Stanley Pedder, for Emeryville Chemical Company.
 R. H. Moore, for Moore Dry Dock.
 D. L. Wolfe, for Ford Motor Company, Richmond.
 Edgar E. Parsons, for Veterans Hospital, Livermore, California.
 S. E. Mountain, for Manufacturers Association of South San Francisco.
 R. Robert Hunter, for County of Alameda and County Institutions, on behalf of District Attorney's office.
 F. C. Hutchins, for Spreckels Sugar Company and Western Sugar Refining Company, Spreckels, California.
 Paul Gross, for Western Marine Products Corporation, Newark.
 Frank B. Hartung, for Owens-Illinois Pacific Coast Company.

R. W. Priest, for Yosemite Portland Cement Company.
 H. M. Carpenter, Y.M.C.A., Oakland.
 Burton Brace, for California Pottery Company, Niles, Calif.
 Frank B. Schmutts, for Fruitvale Canning Company.
 E. K. Van Delening, for Campbell Co-operative Dryers.
 L. F. Bridges, for Cannery League of California.
 H. A. Swickard, for Eastside Co-operative Driers, San Jose, Calif.
 John A. Pettis, for California Manufacturers Association.
 George Ende, for Happy Home Dehydrator.
 W. W. Lester, for Growers connected with the drying of prunes in
 Santa Clara County.
 R. W. Blosser, Y.M.C.A., San Francisco.
 F. W. Murray, San Rafael, for the County of Marin.
 Howard Brooks, for Ferro Enameling Company.
 A. Bratorio, for Posters Lunch System.
 E. S. Erwin, for Stanford University.
 E. F. Culhane, for City Press Publishing Association.
 Edward A. Valentino, for Stauffer Chemical Company.
 John G. Brown, for Mills College, Oakland.
 J. Hunter Clark, for Laundry Owners Association of Alameda County.
 W. A. Dufton, for University of California.
 E. S. Hurl, for Johns-Manville Corporation, Redwood City.
 W. B. Bates, for Shredded Wheat Bakery, Oakland.
 J. W. Morton, for Consolidated Chemical Industries, San Francisco.
 D. D. Conly, for American Manganese Steel Company.
 W. T. Lambert, for Southern Pacific Company.
 L. Barclay and A. J. McKinnon, for Veterans Administration.
 Louis O. Wury, for Dehydrators of Napa.
 Oscar B. Myers, for Chubbuck Lime Company, South San Francisco.
 G. F. Cokely, for Old English Company, San Jose.
 H. B. Viedt, for Best Foods Corporation.
 B. Devine, for Public Utilities Commission, City and County of
 San Francisco.
 J. P. Blaisdale, for Holly Sugar Company, Holly, Calif.
 R. S. Coulter, for Bethlehem Steel Corporation.
 N. E. Morse, for California Dehydrating Company, Sacramento.
 H. J. Byrne, for The Paraffine Companies, Emeryville.
 E. L. Ralston, for Chemical & Pigment Company, Oakland.
 S. E. Prescott, for Langendorf United Bakeries, San Francisco.
 Harold B. Naylor, for Ferro Enameling Company, Oakland.
 F. R. Milner, for California Schools for the Deaf and Blind, Berkeley.
 T. M. DeLap, of Tinning & De Lap, for the American Radiator and
 Standard Sanitary Manufacturing Corporation, and California
 Art Tile Company, Richmond, California.
 George L. Kennard, for Northern California Foundrymen's Institute.
 J. F. Staniunas, C. E. C., U. S. N. R., Naval Air Station, Alameda.
 Mervin Latson, Empire Hotel, San Francisco.
 D. A. Cannon, for Cannon & Company, Sacramento.
 Richard L. Cheney, for Glass Container Association.

RILEY AND SACHSE, COMMISSIONERS:

INTERIM OPINION

The above entitled investigation on the Commission's own motion,
 instituted April 8, 1941, was opened to provide a basis of a long-term viewpoint

as to gas reserves and requirements in California. The State Department of Natural Resources and the Commission are cooperating in undertaking a comprehensive investigation of all phases of the natural gas situation in California which, it is expected, will be complete early next year. Applications of Southern California Gas Company, Southern Counties Gas Company and Santa Maria Gas Company to obtain permission to shut off industrial customers, when the gas could otherwise be left in the ground for later service to domestic and commercial customers, have been filed, but these have not as yet been heard, and this matter is not covered in this opinion and order.

Sharply mounting demands for gas service this year because of the defense program superimposed upon normal growth of the state caused concern as to the available supplies to meet the demands, and, at a meeting of the subcommittee of the California State Council of Defense on July 2, 1941, dealing with the natural gas situation in California, a review of the available data was undertaken. Supplies adequate for the estimated firm domestic and commercial requirements, including defense requirements, were found to be available, based on the surplus industrial load being shut off pursuant to tariff and contract provisions. Since many industries in southern California had not installed stand-by fuel facilities, the committee felt a serious situation might result from the shutoff of industries engaged in defense production. The committee issued a public statement to the effect that ample gas supplies were available, but warned surplus industrial users should be prepared to shut off surplus gas or be prepared for use of oil or other stand-by facilities. The major gas companies were requested on or about July 15, 1941, to notify each surplus industrial customer of the existing situation.

Since that time changes have occurred in the supply as well as the demand for gas. The Commission decided to set the above-numbered case down for hearing; limited, however, to a consideration of surplus industrial contracts in order that a review of the state-wide situation might be had while there was still time to take action in advance of the critical winter period.

Hearings were held at Los Angeles October 24, 27 and 28, and in San Francisco October 30 and 31. The matter has not been submitted. Evidence as to the general investigation now under way was not taken. Testimony was given as to the immediate problems of supply and demand by members of the Commission's staff, Southern California Gas Company, Southern Counties Gas Company, Santa Maria Gas Company, San Diego Gas and Electric Company, Pacific Gas and Electric Company and Coast Counties Gas and Electric Company and certain customers and their representatives. All industrial customers were required to be notified, and a large number were represented at the hearings.

Rates are not at issue at this time. The classification as between firm and surplus schedules must, however, be considered. This opinion will discuss the problems found from the investigation, to date, under four general headings:

- I. The Southern California Situation
- II. The Northern California Situation
- III. The Classification Between Firm and Surplus Users
- IV. Conclusions

It should be clearly understood that this is an interim decision. It is expected a complete record will be presented upon the completion of the investigation, several months hence.

I. THE SOUTHERN CALIFORNIA SITUATION

For the immediate purposes of this order, the southern California problem is more acute since a large number of "surplus" industrial customers had not, as of the middle of the year, installed stand-by facilities.

After the notification in July a substantial number took steps to install such stand-by. Exhibits presented by Edward DeRomer for Southern California Gas Company and by Charles Ferry for Southern Counties Gas Company

show the following situation as of October 1, 1941. The sales are the totals for the month of June:

	So. California Gas Co.		So. Counties Gas Co.		Combined	
	Cust.	M.C.F.	Cust.	M.C.F.	Cust.	M.C.F.
100% Stand-by	248-1/2 ⁽¹⁾	2,010,971.1	42	310,335.3	290-1/2	2,321,306.4
Partial Stand-by	18-1/3	318,560.2	4	10,855.4	22-1/3	329,415.6
No Stand-by	971-1/6	1,002,615.5	182	191,497.6	1,153-1/6	1,194,113.1
Total	1,238	3,332,146.8	228	512,688.3	1,466	3,844,835.1

Of those industries without stand-by the following had indicated their plans for the future as of the date of October 1, 1941:

To Transfer to Firm Schedules	47-7/12	38,039.6	10	2,008.3	57-7/12	40,047.9
To Install Oil Stand-by	107-1/4	218,392.1	72	82,710.3	179-1/4	301,102.4
To Install Butane Stand-by	22-1/2	47,177.3	16-1/2	26,136.9	39	73,314.2
Total	177-1/3	303,609.0	98-1/2	110,855.5	275-5/6	414,464.5
Remaining Without Stand-by	793-5/6	699,006.5	83-1/2	80,642.1	877-1/3	779,648.6
% of Total	64.1%	21.0%	36.3%	15.7%	59.8%	20.3%

The exhibits show a breakdown of these totals as between industries engaged in primary defense activities, secondary defense activities and non-defense activities. Confining the discussion to those industries which have not installed stand-by service and who have not indicated their intention to do so, the exhibits show that by far the greater number of customers are not

(1) In the analysis of the stand-by equipment, each customer was given the weight of one or a fraction indicative of the extent of his stand-by facilities. Thus, if a customer's stand-by covered approximately one-third of his total fuel requirements, then that customer in the tabulation was given a weight of one-third of a customer.

engaged in defense activities at present, as follows:

Customers Who Do Not Have Stand-by And Who Have Not
Indicated They Will Provide Stand-by Or Transfer To Firm Gas

	<u>So. California Gas Co.</u>		<u>So. Counties Gas Co.</u>		<u>Combined</u>	
	<u>Cust.</u>	<u>M.C.F.</u>	<u>Cust.</u>	<u>M.C.F.</u>	<u>Cust.</u>	<u>M.C.F.</u>
Primary Defense	130-5/6	159,921.6	5-1/2	14,109.3	136-1/3	174,030.9
Secondary Defense	94	171,502.6	10	17,939.7	104	189,442.3
Non-defense	569	367,582.3	68	48,593.1	637	416,175.4
Total	793-5/6	699,006.5	83-1/2	80,642.1	877-1/3	779,648.6

Primary defense includes those industries producing aircraft, ordnance, ships, tanks, etc., while secondary defense includes those engaged in producing clothing, housing, food and personal equipment for the armed forces and for the lend-lease program.

R. A. Wehe, Gas and Electric Engineer of the Commission's staff, testified as to studies of the firm and surplus load requirements. As the company is obligated to supply the firm users at all times, facilities must be planned for the coldest weather reasonably to be expected. Mr. Wehe based his studies on the experience of the winter of 1936-37 and projected the experiences of that winter to the expected customers and usage for 1941-42. In presenting this estimate he pointed out, however, that it might be low rather than high, as there was no recent experience to establish what might be the customer usage under abnormally low temperature conditions today - as many changes have taken place in the last four years, especially in the increase in the number of master meter services - all of which points to a larger consumer usage. The estimates as presented for the maximum day follow:

	<u>1937</u>	<u>1942</u>	<u>%</u>
	<u>M.C.F.</u>	<u>M.C.F.</u>	<u>Increase</u>
Firm Load	394,000	504,400	28.0%
Surplus Load	216,000	164,000	(24.1)
Total	610,000	668,400	9.6%
		(Decrease)	

Mr. Wehe testified that there was available to meet these demands for 1942 an approximate daily supply of 150,000 M.c.f. from Los Angeles Basin, 150,000 M.c.f. from the Coastal Area and 250,000 M.c.f. ⁽²⁾ from the San Joaquin Fields, but from an operating viewpoint a combined total supply of 525,000 M.c.f. daily was all that could be safely relied upon for service to customers. With this supply limitation it would be necessary to curtail 143,000 M.c.f., or 87% of the surplus gas sales. The firm customers were further protected by a capacity of about 100,000 M.c.f. in the Los Angeles Area and 25,000 M.c.f. in the San Diego Area of manufactured gas service. Mr. Wehe testified that gas made from diesel oil in such plants cost, for oil alone, about 50¢ per M.c.f.

R. M. Bauer, Gas Supervisor for Pacific Lighting Companies, presented a report as to available natural gas supplies. John F. Dodge, Professor of Petroleum Engineering at the University of Southern California, testified as a consultant on behalf of the Railroad Commission as to the preliminary results of his investigation as to reserves and supplies.

A comparison of the estimates of Mr. Bauer and Dr. Dodge follows as to the daily supply of natural gas available to the Los Angeles Area:

	Bauer		Dodge	
	With Goleta	Without Goleta	Without Goleta	With Goleta
Los Angeles Basin				
Fields	152,000 M.c.f.	162,000 M.c.f.	162,000 M.c.f.	162,000 M.c.f.
Coastal Fields	149,000 M.c.f.*	102,000 M.c.f.	102,000 M.c.f.	149,000 M.c.f.*
San Joaquin Valley	250,000 M.c.f.*	250,000 M.c.f.*	250,000 M.c.f.*	250,000 M.c.f.*
Total	551,000 M.c.f.	514,000 M.c.f.	514,000 M.c.f.	561,000 M.c.f.

* Limit of Pipe Line Capacity

(2) In order to make this supply of gas available at the centers of distribution the record shows that an extensive transmission system is required. From the coastal region there are three transmission lines, ranging in diameter from 12 to 15 inches; from the San Joaquin Valley area there is one 26-inch line and two smaller lines ranging from 12 to 22 inches; and in the Los Angeles Basin fields there are a large number of lines of various diameters - all of which entail an investment in excess of \$35,000,000.

Amounts available to the City of Long Beach are excluded from the Los Angeles Basin figures. The remainder of the Coastal Field supply to the maximum of pipe-line capacity in Dr. Dodge's estimate would be secured from the Coleta storage field from gas injected during the summer. Mr. Bauer explained that an additional 13,000 M.c.f. could probably be made available under his estimate for an emergency of a few days in the Los Angeles Basin Fields. Dr. Dodge stated that there was some uncertainty as to the continued availability of the supply from the San Joaquin Valley, depending on the administration of oil production.

Mr. Bauer also presented estimates of load coupled with his estimates of supply indicating the necessity for curtailment of 113,300 M.c.f. of an estimated total of 150,800 M.c.f. of surplus and transport gas, or 75%.

In the Santa Maria area we believe there will be available gas supplies for all needs. In the San Luis Obispo area, army cantonment requirements have added sharply to the gas demands, but arrangements have been made for additional transmission capacity utilizing an existing gas line of an oil company which should be able to relieve this possible shortage. It is also true that the curtailment of surplus gas to the Santa Maria gas customers would not increase the gas supply which could be delivered to the Los Angeles Basin, inasmuch as there is sufficient gas to fully load the line from Coleta to Ventura and south to Los Angeles. Thus, the availability of any additional gas north of Coleta would not help out the Los Angeles situation. However, if the surplus demands in this coastal area should require a movement of the gas north from Coleta or Ventura, then a curtailment of the surplus demands should immediately be made.

In the San Diego Area perhaps the most critical situation is presented since the supply of natural gas is available only through one line, and any deficiencies must be met through the operation of the diesel oil stand-by plant. Evidence presented by L. M. Klauber and A. E. Holloway, executive officers of the San Diego Gas and Electric Company, indicates the industries, both defense and nondefense, are fully cognizant of the problem of supply and are taking steps

so that adequate stand-by of fuel will be available in all cases, with one exception. The Consolidated Aircraft Company, in its new plant, is providing for 100% stand-by, but in its old plant of 60,000-c.f.-per-hour capacity is only one-third equipped with stand-by.

A representative of the Consolidated Company appeared and explained the problem involved of the location of stand-by fuel tanks. He intimated that the company would ask for gas priorities, yet stated he was fully aware of the terms and conditions of his contract. Since, obviously, this company must not be shut down in the present defense emergency, this situation should immediately be clarified between the industry and the gas company.

II. THE NORTHERN CALIFORNIA SITUATION

The situation in northern and central California is somewhat different than heretofore presented in the southern part of the state, as surplus gas users are reasonably well provided with auxiliary stand-by. This area is served essentially by the Pacific Gas and Electric Company and, to a limited extent, by the Coast Counties Gas and Electric Company.

On the Pacific's system the industrial sales manager, Mr. J. H. Gumz, testified that of the 1,067 surplus gas consumers only 92 (8.6 per cent) are without stand-by for use during the winter peak season. There are, however, some 110 other customers using surplus gas whose use is limited to the summer season and who, in their judgment, have no need for stand-by under normal conditions of operation. It was also brought out that of the 92 customers only 5 are engaged in direct government defense work, such as the manufacture of magnesium, cement and metal products. The unprotected surplus for four of these five primary war industries appears to be negligible, and only the usage in the magnesium plant (3,500 to 4,000 M.c.f. daily) is of serious proportions. It was brought out, however, that any extended period of operation, in excess of three or four days of customer stand-by facilities, might exhaust fuel oil and butane supplies on hand, and, if additional supplies of these fuels could not be secured, many of the industries would be embarrassed for a lack of fuel supply.

It is further of record, through R. S. Fuller, Engineer in charge of Gas Operations and F. F. Doyle, Manager of the Natural Gas Department, of the Pacific Company, that if this northern area should experience very severe cold, such as occurred on December 11, 1932, when the mean temperature in San Francisco was 31°F., all of the Pacific's natural gas facilities would be required to take care of its firm customer requirements. Such requirements for a 24-hour period are estimated by the utility to be 382,000 M.c.f. on the Kettleman and Rio Vista systems. During such a period of demand, if the utility were unable to secure enough natural gas to fill its transmission lines, then it would be necessary to augment its natural gas supply by operating its manufacturing gas plants and producing up to some 30,000 M.c.f. per day. The record shows the capacity of these plants, on a continuous basis, to be 75,000 M.c.f. daily. The surplus load that normally might be expected during such a period, exclusive of the utility's own electric generating plants' requirements, would be in the neighborhood of 100,000 M.c.f. daily. This is the amount of gas in industrial uses that would have to be curtailed, together with, of course, the use in electric generating plants. It is also clear, from the record, that in the case of necessity, the defense load requirements not provided by stand-by could be carried if no other means are available by use of the manufacturing plants.

The record developed in reference to the Coast Counties Gas and Electric Company shows that there is no serious problem involved. This utility has no primary defense industries using surplus gas. That defense work which is served may be looked upon as secondary and comes under the classification of fruit and dairy products.

Inasmuch as its natural gas supply is from the same transmission system as transports the gas for Pacific, any curtailment necessary for Pacific's customers should likewise, in our opinion, be carried out uniformly on this smaller utility's system, so that all surplus load is treated consistently.

This is especially so for that gas supplied to the Coast Counties southern area which is fed from the Pacific Gas and Electric Company coast line near Gilroy. (3)

III. THE CLASSIFICATION BETWEEN FIRM AND SURPLUS USERS

The history of the transition from manufactured gas (supplied by local distribution plants in each community years ago) to the present interconnected natural gas systems of today reveals the development of the surplus industrial gas business. In the manufactured gas systems the plant was designed to supply the peak needs of all customers, largely domestic and commercial cooking and water heating. The cost of artificial gas produced from oil was comparatively high, and was used but to a limited extent for house heating, and to a still lesser extent for industrial purposes. Discoveries of oil fields, and availability of natural gas at less cost resulted in increased heating of homes by gas, greatly adding to the winter peak loads. Since most of the gas came from wells producing oil (known as "wet" or "casinghead" gas) and was available more or less uniformly throughout the year, the gas distribution companies looked about for some outlet for the gas during the greater part of the year when it was not needed for house heating and other domestic and commercial uses, and yet was available in

(3) The transmission of part of the Pacific Gas and Electric Company's gas from Kettleman Hills and other valley fields, as well as Coast Counties Gas and Electric Company's gas supply, is somewhat complex in reference to the means of transporting. Pacific Gas and Electric Company owns and operates a coastal line from Kettleman which has an approximate capacity of 100,000 M.c.f. daily, from which Coast Counties' southern district is supplied at a point near Gilroy. This gas is not sold to Coast Counties but Pacific Gas and Electric Company is given a like quantity of gas from the Standard-Pacific line which traverses the valley north from Kettleman, terminating in the North Bay area at San Pablo. The Standard-Pacific line is owned 1/2 by the Pacific Gas and Electric Company, 2/14 by the Standard Oil Company of California and 5/14 by Coast Natural Gas Company. It is from the Coast Natural Gas Company that Coast Counties Gas and Electric Company purchases its gas requirements and from whom, as well as the Standard Oil Company, the Pacific Gas and Electric Company secures increased transmission capacity by paying a transport charge for the gas transported in excess of Pacific's 1/2 interest, when its firm demands require and when the Standard Oil interests can make available this additional capacity. The 24-hour capacity of the Standard-Pacific line is something in excess of 190,000 M.c.f. per day, depending upon where the gas is received, the pressure conditions and points of delivery. The Commission, in the course of this proceeding, proposes to go more fully into the important question of transmission pipe line facilities, ownership and inter-company relationships, with the view of developing how controlling a function such transport agencies have in the supply of natural gas. Only a portion of such facilities are at present under the jurisdiction of this Commission.

the field as a by-product of oil. They found in many instances that industries using oil as fuel were willing to install gas burners and burn gas instead of oil; transferring back to oil when the gas was required for the domestic and commercial users. Of course, the price of gas was related in a competitive way to the price of oil; in some cases incidental advantages affected the competitive price. The gas company received the difference between the field price and the industrial price as practically a net addition to income, for the transmission systems designed for the winter heating peak would otherwise only be filled to a fraction of their capacity during the summer months.

The gas distributing companies had to assume the obligation of supplying uninterrupted service during winter seasons and emergencies, and consequently have maintained stand-by plants of various sorts to augment the available supplies of natural gas in these critical periods. The old manufacturing plants still in service, that formerly produced a low heat content gas, have been changed to use Diesel oil to produce gas of a high heat content (approximately 950 to 1000 B.t.u.) which could be mixed with natural gas. Some utilities have installed expensive stand-by supplies of butane, with suitable vaporizing and compressing equipment for injection purposes to protect the winter heating peaks. Fortunately, discoveries of large reserves of "dry" gas in northern California have assisted in making gas available in the northern area more nearly in accord with demands. In the south certain fields available for storage have been equipped with compressor equipment so as to inject gas in the summer time to form a large storage reservoir for release into the distribution system in the winter months.

Obviously, all of these provisions for adequacy of supply are costly and some one must pay the cost. The industrial user who buys gas on a competitive price basis with oil can not be charged with such costs, or he would transfer to oil as fuel. From this general background the present basis of rate classification developed, assessing the cost of the distribution and stand-by system and the bulk of the transmission system to the domestic and commercial user. Since the gas

company was under the obligation of supplying such customers at all times, installing new facilities when growth of load required, they have become known as basic or "firm" service customers. The industrial customers who contracted to take gas at such times as it was not required for the "firm" users became known as off-peak or "surplus" industrial customers.

As the gas business continued some industries were attracted as "surplus" customers, whose operations were such that other fuels could be readily substituted during the winter season. These industries installed stand-by fuel service and operated optionally on natural gas, or the stand-by fuel, either oil or butane. Others, using gas as part of their processing and not being able to substitute other fuels, were classified as "firm" industrial, contributing to the costs of the complete transmission and stand-by service. These customers are, therefore, not subject to shutoff, but receive service at a lesser cost per unit as compared with domestic and commercial service because of their diversity and higher total usage and consequent savings in distribution and commercial costs. Some industries, while signing contracts for surplus service, have not provided stand-by service, apparently preferring to shut down operations in the event of a shortage. Under the applicable tariff and contracts the "surplus" service covers only natural gas, and the utility would not only be providing service at decidedly less than cost, but would be discriminating between its customers should it endeavor to supply manufactured or stand-by gas service to "surplus" customers, who had not installed their own stand-by service, while refusing such gas to those surplus customers who had installed stand-by facilities at their own expense.

IV. CONCLUSIONS

From these preliminary hearings the Commission believes it has sufficient evidence to draw certain conclusions which will be sound as to the requirements of the approaching winter season, with the clear understanding that this interim Opinion and Order will be preliminary to the main order upon completion of the comprehensive state-wide investigation.

We recognize a state of national emergency, and that aircraft, ship, tank and munition production must move forward uninterrupted. To that end we find that many of the industries, some within the past few months, have adequately equipped themselves with stand-by for the periods when surplus gas is not available. Some have elected to take the firm service. Some have not as yet made provision for either stand-by or firm fuel service. It is gratifying to the Commission that the record reveals that through the stand-by facilities of the industries, together with manufacturing plants of the utilities, an ample supply of fuel will be available in emergencies to meet all defense industrial needs. However, the evidence is clear that with a cold winter, there will remain, on the basis of present estimates, but a comparatively small, if any, margin of natural gas after supplying domestic and commercial users; and such as does exist in southern California will be by virtue of the stored gas at the Goleta field. This gas costs greatly in excess of the usual natural gas supply, because of the extra transmission and compression costs and carrying charges on the investment in the field. It is in itself in the nature of stand-by gas.

Two hundred seventy-five industrial concerns in the Los Angeles area have taken steps to provide stand-by facilities or transfer to firm service since July 15. Of the remaining industries without stand-by in southern California, some 240 are engaged in primary or secondary defense activities. This Commission is prepared to say that it will use its every effort to see that defense industries that cannot be equipped with auxiliary fuel supply, will receive gas even if it be necessary for the utilities to operate their manufacturing gas plants to augment any deficiencies up to their capacities that may arise.

The Commission, in normal times, usually has not required a tariff provision that stand-by equipment actually be installed as a condition precedent to service of surplus natural gas, leaving to the discretion of industrial management as to whether in lieu thereof their plants would be shut down during periods of shortage of supply. Industrial customers in northern California have experience

such shutoff on numerous occasions and the record shows that the vast majority of them have stand-by. Shutoff in southern California, in the past, has been less frequent and industries are not as well prepared with stand-by service.

The Commission, however, in its responsibility finds it essential at this time, in view of the mounting firm loads throughout the state, coupled with the national emergency, to place all existing surplus customers on definite notice that the terms of their contracts must be strictly met. In order that the supplying utilities may be in the strongest position to take care of necessary future demands, this Commission finds that each of respondent utilities shall immediately canvass each industry, using surplus gas and engaged in defense contracts and who is not equipped to operate on an independent fuel supply in case of shutoff to ascertain its position. Such industries who are thus interviewed and those who may later become defense industries should cooperate fully with the utilities in advising them as to the adequacy of their stand-by, if any, and whether or not the utilities will be required to carry their loads in the event of a shutoff under their contract requirements. As to nondense industries now purchasing surplus service, there is no change other than such industries should realize that they must cease taking surplus gas immediately upon notice, in accordance with their contract provisions. However, since non-defense industries today may be defense industries tomorrow, every effort should be made to make their positions clearly known to the supplying utilities in order that any change in their future requirements may be anticipated and, if possible, provided for.

For those industries that may, after the date of this Interim Opinion and Order, make application for surplus service, the respondent utilities shall not enter into service agreements unless and until such applicants first show that they have provided an adequate, usable stand-by fuel supply or, in case the above conditions are not met, then surplus service may only be rendered after securing special authorization from this Commission.

The Commission calls attention to the uncertainty of the continued availability of butane because of increasing demands for military purposes, and cautions industries as to use of butane as a stand-by fuel for this reason.

Gas service is rendered in accordance with provisions of rules and regulations on file with this Commission. The tariffs do not permit termination of surplus contracts for the purpose of obtaining priority of service during peak or shutoff seasons. On the contrary a review of these requirements shows clearly that industrial customers may not transfer at will between the firm and the surplus schedules, as to do so would destroy the value of the classification built over the years and would transfer to the domestic and commercial users the burden which properly belongs to the industrial customers requiring firm service.

In coming to the conclusions and findings heretofore presented, these are not to be construed as requiring the discontinuance of surplus natural gas service and the taking of the higher rate firm service, in order to secure the greater assurance of an uninterrupted fuel supply. It should be clear that the steps taken are deemed essential in order to make available fuel supplies to all firm gas customers and to all others who require, in this emergency, an uninterrupted service. While the Commission believes that the first and foremost necessity is to see that sufficient fuel supplies are available, it is scarcely less important, in the carrying out of its obligations, that preference and discrimination between users be kept to the minimum in bringing this about. This means that those industrial customers whose operations make it impossible to carry out the conditions of their contracts, in reference to gas supply, likewise can not expect and shall not be permitted to pay for the superior service under the old contract rates.

INTERIM ORDER

A hearing having been had in the above entitled investigation upon the Commission's own motion, and it appearing to the Commission that the issuance of an interim order is appropriate and necessary; therefore, based upon the findings and conclusions set forth in the foregoing opinion,

IT IS HEREBY ORDERED by the Railroad Commission of the State of California that Southern California Gas Company, Southern Counties Gas Company, Pacific Gas and Electric Company and Coast Counties Gas and Electric Company shall not hereafter, except upon application made to this Commission and approval first obtained, make any of their existing surplus gas schedules available to new customers or for new uses unless each such customer then shall have other sources of fuel supply available for ready use in the event of the shut-off of gas service by the utility; and each said respondent utility, within twenty (20) days from the date of this order, shall submit to the Commission for approval such proposed revisions of or additions to its tariffs, rules and regulations as may be necessary to limit, during the period of the national emergency, the availability of surplus gas service as herein provided.

IT IS HEREBY FURTHER ORDERED that Southern California Gas Company, Southern Counties Gas Company, San Diego Gas and Electric Company, Pacific Gas and Electric Company and Coast Counties Gas and Electric Company shall henceforth strictly enforce their existing gas shut-off rule or rules, and, in the event any surplus gas customer shall demand and obtain uninterrupted gas service after notice given by the utility that such customer's gas supply is to be shut off in accordance with existing rules or contract provisions, the obligation of the utility to render further gas service to such gas customer under any such existing surplus gas schedule, contract or rule shall immediately terminate, and thereafter the utility shall not continue or renew surplus gas service to such customer unless the consent of this Commission first be obtained or unless the customer shall have provided other sources of stand-by fuel supply; and in so far as any existing

surplus gas service contract entered into by each of said utilities may contain any provision inconsistent with the action which the utility is required to take under this order, each such contract shall be deemed to be amended and hereby is declared amended or reformed to the extent necessary to permit the utility fully to comply with the terms of this order.

IT IS FURTHER ORDERED that each respondent utility immediately mail or deliver a copy of this opinion and order to each of its surplus gas customers.

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

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

Dated, San Francisco, California, this 26th day of November

1941.

[Signature]
[Signature]
Justus D. Cadogan
Francis D. Havenor
[Signature]
 Commissioners