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1929

TWENTY-FOURTH ANNUAL REPORT

OF THE

PACIFIC GAS AND ELECTRIC COMPANY

FOR THE

FISCAL YEAR ENDED DECEMBER 31, 1929

The Territory Served

BY THE

PACIFIC GAS AND ELECTRIC COMPANY

Embraces 38 counties of northern and central California, with an aggregate area of 61,000 square miles, exceeding that of the combined states of New Hampshire, New Jersey, Vermont, Maryland, Massachusetts, Delaware, Connecticut and Rhode Island.

In this region, which possesses unusual climatic advantages, forest and mineral resources and opportunities for agricultural and industrial development, the Company furnishes services of the most essential nature to a rapidly growing population, now exceeding 2,500,000.

At the close of 1929, more than 1,038,500 customers were connected to the Company's system, being supplied with service through 18,488 miles of electric transmission and distribution lines, and 5,498 miles of gas mains. The maps which are included in this report indicate the locations of some of the major plants and transmission existens.

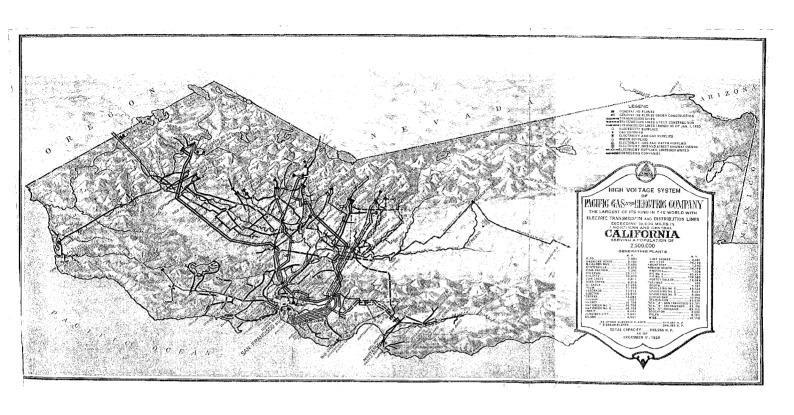
CITIES AND TOWNS SERVED BY COMPANY

	·		T				
		Directly		Indirectly	Total		
	No.	Population	No.	Population	No.	Population	
Electricity. Gas. Water (Domestic). Railway. Steam Heating.	25 1	1,780,007 1,806,285 33,560 105,000 1,003,000	1	158,075 14,702 22,215	362 92 38 1 2	1,938,032 1,820,987 55,775 105,000 1,003,000	

Record of Ten Years' Growth

Year Ended	Gross Operating Revenue	Sales of Electricity K. W. H.	Sales of Gas Cubic Feet	Number of Consumers December 31	Number of Stockholders December 31
Dec. 31		658,449,000	9,792,386,000	520,619	8,813
1919		1,042,266,000	10,644,650,000	569,359	14,020
1920	00 000 474	1,042,200,000	11,483,551,000	599,113	18,204
1921	00 500 500	1,021,021,000	12,353,849,000	645,410	25,265
1922	. 38,593,562	1,199,063,000	13,674,794,000	710,034	26,294
1923		1,334,035,000	15,277,478,000	763,617	31,859
1924	45 500 070	1,351,798,000	16,200,951,000	813,698	34,863
1925		1,514,981,000	17,482,206,000	874,724	39,149
$1926\ldots$		1,657,965,000	20,214,834,000	967,717	46,068
$1927\ldots\ldots$. 57,893,181		21,058,369,000	1,004,340	49,068
1928	. 61,449,592	1,774,222,000	22,041,346,000	1,038,546	61,131
1929	. 64,440,588	1,948,656,000	22,041,040,000		
Gain in Ten Years Increase, Per Cent		1,290,207,000 195.95%	12,248,960,000 125.09%	517,927 99.48%	$52,318 \ 593.65\%$
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Pacific Gas and Electric Company

245 Market Street

SAN FRANCISCO, CALIFORNIA

BOARD OF DIRECTORS

Frank B. Anderson			San Francisco	F. T. Elsey San Francisco
ALLEN L. CHICKERING			San Francisco	D. H. FOOTE San Francisco
W. H. CROCKER				A. F. Hockenbeamer San Francisco
CHARLES H. DICKEY				NORMAN B. LIVERMORE San Francisco
A. B. C. Dohrmann			San Francisco	John A. McCandless (Deceased) . Honolulu
P. M. Downing .			San Francisco	JOHN D. McKee San Francisco
				C. O. G. MILLER San Francisco
	J	OH	n J. O'Brien	Chicago

EXECUTIVE OFFICERS

A. F. Hockenbeamer			•	President San Francisco
P. M. Downing				First Vice-President and General Manager San Francisco
John P. Coghlan .				Second Vice-President and Assistant to the President San Francisco
D. H. FOOTE				Third Vice-President and Secretary-Treasurer . San Francisco
Chas. L. Barrett .		•		Assistant Secretary and Assistant Treasurer San Francisco

MANAGEMENT OFFICERS

A. H. MARKWART		- '				Vice-President in Charge of Engineering
W. G. VINCENT .						Vice-President and Executive Engineer
W. S. YARD	٠.			٠		Vice-President in Charge of Gas Construction and Operation
R. E. Fisher				•		Vice-President in Charge of Public Relations and Sales

STOCK TRANSFER AGENCIES

Office of Company						San Francisco
Description Correction						37 77 1
Bankers Trust Company						. New York

REGISTRARS OF STOCK

THE AMERICAN TRUST COMPANY				:	. :	San Francisco
THE NEW YORK TRUST COMPANY						. New York

This Company makes no charge for stock transfers beyond the cost of documentary stamps that may be required by law.

[1]

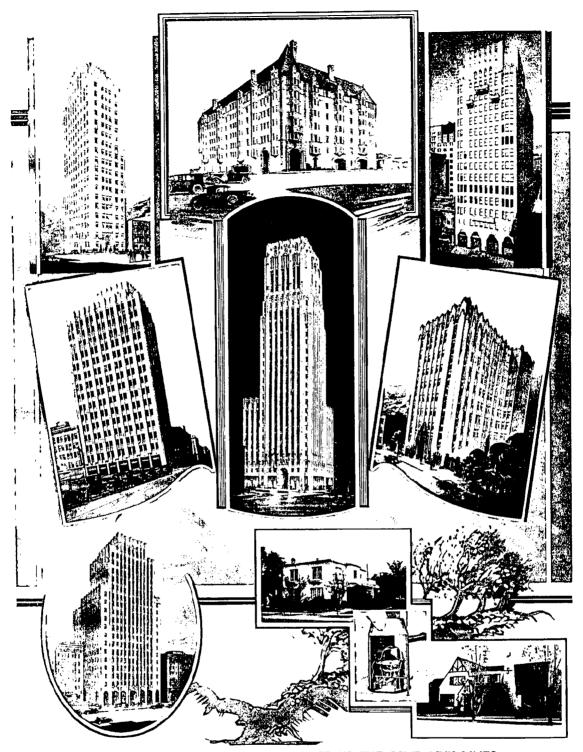
HEADS OF DEPARTMENTS

Law Department: Wm. B. Bosley T. J. Straub	•									General Counsel General Attorney
RATE DEPARTMENT: C. P. Cutten										Attorney
D. G. Martin H. T. Terry	:					•		٠.		Comptroller General Auditor Auditor of Division Accounts Manager Property and Tax Department
CREDIT AND COLLECTION STOCK SALES DEPARTMENT Geo. H. Rand	ns Di ent:			VT:						Manager
Purchasing Departme John H. Hunt	ENT:			-			-			Purchasing Agent
SUPPLY DEPARTMENT: Fred P. Hanson .									. '	Superintendent
PERSONNEL DEPARTMENT E. G. McCann										Manager
F. R. George . O. W. Peterson E. H. Steele . Geo. H. Bragg	•		• • • •			· · ·	RTME	· ·	:	Engineer of Operation Engineer of General Construction Engineer of Line Construction Engineer of Maintenance
I. C. Steele F. M. Harris	•		•	Cha Cha Cha	ief of ief of ief of	$egin{array}{c} Di \ Di \ Bi \end{array}$	vision vision ireau	of of of	Ele Civ Spe	dro-Electric and Transmission Engineering ctric Distribution and Steam Engineering il Engineering cifications and Estimates and Inspection
EXECUTIVE ENGINEERI J. T. Ryan B. B. Beckett S. B. Shaw C. H. Prouty	· · ·						 		•	Valuation Engineer Rate Engineer Automotive Engineer Manager Land Department
Gas Construction an Frank Wills R. S. Fuller H. J. Smith Frederick F. Doyl					:		· ·			Engineer of Production Engineer of Distribution
	• · ·					•		•		Engineer of Construction Manager Natural Gas Division
Public Relations and Don C. Ray H. M. Crawford N. R. Sutherland R. T. Stephens Forrest U. Naylor J. Charles Jordan	e D Sal	es I	EPAI	RTME	٠					Manager Natural Gas Division Manager Bureau of Public Relations Sales Manager Manager Commercial Department Manager Electric Sales

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DIVISIONS AND MANAGERS

Coast Valleys Division	T. W. Snell	Division Manager	Headquarters
COLGATE DIVISION	E. C. Johnson C. R. Gill	Division Manager District Manager	. Marysville . Colusa.
DE SABLA DIVISION	J. H. Fagg Stephen Goin	Division Manager District Manager	. Chico . Willows
Theor County District	. H. M. Cooper	District Manager	Auburn
Richmond District	L. H. Newbert J. H. Pape Geo. N. Rooker	District Manager District Manager	Berkeley Richmond
Fresno Division	H. C. Ross	Division Manager	Fresno
HUMBOLDT DIVISION	H. L. Jackman	Division Manager	Eureka
Napa-Vallejo Districts	H. G. Ridgway L. J. Peterson C. D. Clark M. G. Hall	District Manager	Petaluma
Vacaville District	E. W. Florence C. E. Sedgwick W. Z. McBride J. W. Coons	District Manager	Dixon
San Francisco Division	Henry Bostwick	Division Manager	San Francisco
Diecora District	H. B. Heryford W. E. Eskew Chas. H. Noack	District Managem	T 1
San Jose Division	I. B. Adams	Division Manager	San Jose Redwood City
SHASTA DIVISION	G. R. Milford In Chas. Hughes In T. B. Copeland In Inc.	notro at Manager	D 1 7D1 00



A FEW OF THE NEW BUILDINGS ADDED TO THE COMPANY'S LINES

Some of the new buildings to which "Pacific Service" was extended during 1929. Reading from left to right: (Top Row)
Clay-Jones Apartments, Chateau Apartments and El Cortez Hotel Apartments, San Francisco. (Middle Row) Financial Center Building, Oakland; Shell Oil Company Building and Master Builders' Investment Corporation Building,
San Francisco. (Lower) Alexander Hamilton Hotel, San Francisco: and typical residences taking natural gas service,
with inset showing coal furnace equipped with conversion burner.

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REPORT OF THE DIRECTORS

OF THE

PACIFIC GAS AND ELECTRIC COMPANY

SAN FRANCISCO, CALIF., APRIL 1ST, 1930.

TO THE STOCKHOLDERS:

Your Directors submit herewith a report of the 1929 operations of the Pacific Gas and Electric Company and of its wholly owned subsidiary companies, Mt. Shasta Power Corporation and Sierra and San Francisco Power Company.

For convenience the items in the following income account are numbered to correspond with the explanatory notes on the ensuing pages.

CONSOLIDATED INCOME ACCOUNT

PACIFIC GAS AND ELECTRIC COMPANY AND SUBSIDIARY COMPANIES

		1929	1923	Increase	Decrease
(1)	Gross Operating Revenue	\$64,440,588	\$61,449,592	\$ 2,990,996	,
	Deduct: (2) Operating and Administrative Expenses and Taxes (3) Maintenance	2,981,188	\$27,126,832 3,318,039 1,314,334		336,851
(6) (7)	(5) Total Deductions Net Earnings from Operation Add: Miscellaneous Income	33,192,798	\$31,759,205 29,690,387 338,487	\$ 3,502,411	,
(9)	(8) Total Net Income		\$30,028,874 10,130,901	\$ 3,544,230	1
(11)	(10) Balance			\$ 3,826,566	
(13)	(12) Balance	\$23,218,120 7,477,634	\$19,369,658 5,967,320		
(15)	(14) Surplus		\$13,402,338 4,601,630	\$ 2,338,148 238,935	
(17)	(16) Balance		\$ 8,800,708 5,550,574	\$ 2,099,213 641,318	l .
	(18) Balance.	\$ 4,708,029	\$ 3,250,134	\$ 1,457,895	

Income and Surplus Accounts and Balance Sheet certified by Messrs. Haskins & Sells appear on pages 27-29 of this report.

CUSTOMERS

The total number of customers at the close of 1929 was 1,038,546, of whom 479,986 were users of gas, 549,816 of electricity, and 8,744 of water and steam. The net addition to the number of customers during the year was 34,206. Since 1919, the number of active meters connected to the Company's distribution system has increased 517,927, having doubled in the past ten years. A tabulation summarizing these figures, by departments, follows:

NUMBER OF CUSTOMERS

		At December 31	Net Gain			
· -	1929	1928	1919	In 1929	In 10 Years	
Gas Customers. Electric Customers. Water Customers. Steam Customers.	479,986 549,816 8,009 735	466,628 529,306 7,762 644	269,870 235,719 14,587 443	13,358 20,510 247 91	210,116 314,097 *6,578 292	
Total Customers	1,038,546	1,004,340	520,619	34,206	517,927	

^{*}Decrease due to sale of water properties.

NOTES ON INCOME ACCOUNT

(1) GROSS OPERATING REVENUE—\$64,440,588:

The Company's record of uninterrupted growth since organization was maintained during 1929, when gross operating revenues, for the twenty-fourth consecutive year, showed a substantial increase over the preceding year. (See chart on page 31).

The total operating revenue from all sources aggregated \$64,440,588, of which \$42,019,352, or 65.21%, was derived from the sale of electricity, \$20,899,329, or 32.43% from gas sales, and \$1,521,907, or 2.36%, from minor activities, as detailed in the following tabulation showing the departmental distribution of revenue during each of the past two years:

GROSS OPERATING REVENUES BY DEPARTMENTS

	1929	1928	Increase	Per Cent of Whole Contributed by Each Department
Electric Department. Gas Department Street Railway Department Water and Irrigation Department Steam Sales Department	670,333 $457,964$	\$39,059,071 20,850,005 695,343 437,647 407,526	\$2,960,281 49,324 25,010* 20,317 13,916*	65,21% 32,43% 1,04% .71% .61%
Total Gross Operating Revenue	\$64,440,588	\$61,449,592	\$2,990,996	100.00%

^{*}Decrease.

The Company's electric department revenue increased \$2,960,281, or 7.6%, notwithstanding the lower rates in effect during 1929, as compared with the preceding year. The reductions made in 1928 affected primarily domestic, commercial and street lighting rates. The lower schedules, and a vigorous sales campaign, encouraged a substantially increased consumption of energy in each of these classes of business, as indicated by the following results:

Sales for commercial and residential heating and cooking increased	20,099,077	K.W.H.	or 30.1%
Sales for commercial and residential lighting increased			12.2%
Sales for street lighting increased	6,627,007	«	18.7%
Sales of electricity for all purposes increased			9.8%

The increase of \$49,324 in gross derived from gas sales is considerably less than the normal rate of growth which this branch of the business has uniformly experienced in the past. This is attributable in part to lower gas rates which were placed in effect on Febuary 14, 1929, as a result of reduced fuel oil prices, by which our customers benefited to the extent of approximately \$900,000; and also to the substitution during the second half of the year of natural for manufactured gas in certain sections of the Company's territory. Natural gas contains twice as much heat as the same volume of manufactured gas, and the immediate effect of the substitution is a reduction in the volume of sales and in gross receipts. This situation is a temporary one and was, of course, fully anticipated. After the necessary period of readjustment to the new conditions, we are convinced that this venture will not only prove one of the most popular ever made by the Company, owing to the large aggregate saving to nearly half a million consumers, but will also prove to be one yielding very satisfactory profits. Some of the factors on which we base this belief are these:

- (1) A great volume of house-heating now being done with other forms of fuel will be converted to natural gas. Judging from our experience so far and also from that of other natural gas companies in similar territory, it is only a question of time until almost all domestic heating in the communities served by us will be done with natural gas. This is one of the largest and most desirable fields for the new product. The San Francisco Bay area is generally regarded as one of the best house-heating fields in the country, not only from the standpoint of possible load, but as well from the important standpoint of relatively favorable seasonal load variation.
- (2) A very considerable and immediate outlet for natural gas will be found among existing industries which have heretofore used other less desirable or more expensive forms of fuel. A number of contracts of this character have already been signed, to yield an aggregate revenue of approximately \$1,000,000 annually.
- (3) A number of communities and industries within reach of the Company's new pipe lines, but heretofore without gas service will be furnished with natural gas, thus materially enlarging the territory heretofore served.
- (4) Its lower cost (about half that of manufactured gas, on a calorimeter basis), will provide an incentive for existing consumers to use natural gas more freely in appliances already installed, in addition to further installations that will be promoted by the greater economy of the new fuel.
- (5) New industries will be attracted to this region by natural gas. As these industries will require power, as well as heat, the Company's electric department will also be benefited, as will practically all classes of business throughout this section of the State.

The following factors tend more particularly to increase net income, and taken in conjunction with those above cited, assure increasingly satisfactory returns from the operation of the gas department:

- (6) Production costs will be reduced materially. In other words, the Company will be enabled to deliver the natural product at customers' meters for considerably less than the manufactured gas.
- (7) Increased heating capacity of natural gas in effect doubles the capacity of the Company's existing gas distribution systems, for the reason that twice as much heating capacity as heretofore can be carried through its mains without adding to the investment in distribution mains.
- (8) Substantial savings will be made in the operation of the Company's steam electric stations through the substitution of surplus natural gas for fuel oil. The heaviest load on our steam stations occurs during the dry season, when the Company has normally the least amount of water for the operation of its hydro-electric plants, but the greatest volume of available gas. In the winter months, when the requirements for gas for house-heating and other purposes are the heaviest, the maximum amount of hydro-electric energy is available. The operations of the two departments thus dovetail admirably and serve to diminish seasonal peaks. This is one reason prompting the enlargement and complete modernization of the Company's steam plant in San Francisco, now under way. In the latter part of 1930 the installation of two new turbines, with a combined capacity of 134,000 horse-power, will be completed and additional units will subsequently be added to increase the total capacity of this plant to 300,000 horsepower. When this work is finished, the reduced cost of steam generated energy will undoubtedly justify the use of both our Oakland and San Francisco steam plants for base load, as well as for standby and peaking purposes.

(2) OPERATING AND ADMINISTRATIVE EXPENSES AND TAXES—\$26,721,213:

Operating expenses continued the downward trend which has been noticeable in recent years, reflecting the lower unit costs incident to larger scale operations, modernization of equipment and methods, reduced fuel costs, and more intensive loading of existing facilities. Exclusive of maintenance and reserves, the expense of operation in 1929 decreased \$405,619.

YEAR	Gross Operating Revenue Operating Administrat Expenses a Taxes		Per Cent of Expenses to Gross
924	\$44,451,586	\$24,867,625	56%
925	47,729,079	24,785,076	52%
926	50,960,571	25,560,951	50%
927	57,893,181	26,295,702	45%
928	61,449,592	27,126,832	44%
929	64,440,588	26,721,213	41%

The amount set aside out of income for the payment of taxes in 1929, including Federal taxes and those payable to the State and other governmental subdivisions, aggregated \$6,813,406. Seven and one-half cents out of each dollar received from the sale of gas and electricity is turned over to the State government, to which the Company is the largest single contributor operating wholly in the State of California.

The total amount provided out of operating income for taxes during the past ten years exceeded by almost \$11,000,000 the amount paid in cash dividends on the Company's common stock during this period.

(3) MAINTENANCE—\$2,981,188; (13) RESERVE FOR DEPRECIATION—\$7,477,634:

The sum of these items, representing the provision for maintaining the integrity of the Company's physical assets was \$10,458,822, or 16.2% of gross operating revenue. This conforms closely to the practice of previous years, the average upkeep provision for the past fourteen years exceeding 16% of operating gross. The fact that all equipment is maintained in an excellent state of operating efficiency, with adequate provision for renewals and replacements, assures to the Company's customers dependable service, and to investors in its securities the preservation of equities underlying its stocks and bonds.

At the close of 1929, the unappropriated balance in depreciation reserve was \$25,877,905.

(4) INSURANCE AND OTHER RESERVES—\$1,545,389:

Adequate reserves were appropriated out of revenues to cover claims for accidents and damages and for loss by fire and similar contingencies, the provision for these purposes made in 1929 aggregating \$1,545,-389 and resulting in an increase in such reserves, after all charges, of \$356,315. The status of these reserves at the close of the year was as follows:

	Balance in Reserves at
Insurance Reserve	Dec. 31, 1929 . \$1,857,600
Casualty Reserve	. 382,760
Uncollectible Accounts Reserve	. 377,592
Total	. \$2,617,952

(6) NET EARNINGS FROM OPERATION—\$33,192,798; (7) MISCELLANEOUS INCOME—\$380,306; (8) TOTAL NET INCOME, \$33,573,104:

After the deduction of all operating expenses, taxes and reserves (excluding depreciation reserve) net earnings from operation aggregated \$33,192,798, or \$3,502,411 in excess of the corresponding figure in 1928. The addition to net exceeded by \$511,415 the gain in gross operating revenue.

Total net income, after the addition of \$380,306 of miscellaneous income (non-operating revenues derived from interest on investments, etc.), amounted to \$33,573,104, which was available for depreciation and for a return on the Company's invested capital.

(9) BOND INTEREST—\$9,848,565; (11) BOND DISCOUNT AND EXPENSE—\$506,419:

These items, representing respectively the interest payable to holders of the Company's secured obligations and the year's proportion of discount and expense incurred in the past sale of bonds, aggregated \$10,354,984, a decrease of \$304,232. This decrease in fixed charges was occasioned by the refunding during the preceding year of certain of the Company's issues with bonds bearing a lower interest rate, and was also due in part to an actual reduction in the amount of outstanding bonds through sinking fund operations and the retirement at maturity of two small issues.

The following table shows that in the past five years net income available for fixed charges and depreciation increased \$16,841,517, compared with an increase of only \$3,587,037 in interest charges, a fact which sufficiently emphasizes the steadily increasing equity and earning power back of the Company's bonds.

BONDS-MARGIN OF EARNINGS OVER INTEREST CHARGES

Year Ended December 31	Net Income Available for Fixed Charges and Depreciation	Interest Charges	Balance	Number of Times Interest Earned
1924 1925 1926 1927 1928 1929	19,168,185 21,471,515 27,798,967 30,028,874 33,573,104	\$6,261,528 7,078,183 7,926,006 10,472,974 10,130,901 9,848,565	\$10,470,059 12,090,002 13,545,509 17,325,993 19,897,973 23,724,539	2.67 2.71 2.71 2.65 2.96 3.41
Increase in 5 years	\$16,841,517	\$3,587,037	\$13,254,480	.74

Since 1924, the investment position of the Company's bonds has been fortified through the addition of approximately \$165,812,000 to physical assets, while the amount of outstanding bonds has increased only \$53,667,000. In other words, more than \$3,000 worth of property has been added for every \$1,000 bond sold during this period. At the close of 1929 the book value of the Company's properties, including net current assets, exceeded by \$222,464,027 the total face value of all bonds held by the public. A summary showing the relationship of funded debt to physical assets during recent years follows:

BONDS—INCREASING EQUITY IN PHYSICAL ASSETS

Year Ended December 31	Book Value of Fixed and Working Capital	Par Value of All Bonds Outstanding with Public	Excess of Physical Equity Over all Bonds
1924 1925 1926 1927 1928 1929	302,402,941	\$153,357,300 161,852,800 170,209,800 208,631,500 207,883,000 207,024,200	\$110,319,339 117,987,373 132,193,141 163,182,211 173,211,445 222,464,027
Increase in 5 years	\$165,811,588	\$53,666,900	\$112,144,688

(14) SURPLUS—\$15,740,486; (10) PREFERRED STOCK DIVIDENDS—\$4,840,565; (17) COMMON STOCK DIVIDENDS—\$6,191,892:

The surplus available for the payment of dividends to the Company's 61,131 stockholders in return for their investment in the property amounted in 1929 to \$15,740,486 or \$2,338,148 more than in 1928.

Dividends on the outstanding preferred stock amounted to \$4,840,565 and were earned 3.25 times. Putting the matter in another way, the Company's earnings in 1929 would have sufficed to pay dividends at the rate of 5½% upon approximately \$200,000,000 of preferred stock in addition to the \$86,000,000 par value actually outstanding at the close of the year. The first preferred stock, since its original issuance upwards of fifteen years ago, has always been a sound and well protected issue, and its increasing desirability as a high-grade investment may be inferred from the fact that in the past five years \$52,729,025 par value of additional common stock, paying dividends at the rate of 8% annually, has been placed back of the preferred, \$31,911,373 having been received by the Company from the sale of \$22,599,933 par value of common stock in 1929 alone. Largely as a result of this additional common stock financing, the balance available for preferred dividends, as indicated in the following table, has increased \$8,712,137 in the past five years, while dividend requirements on the Company's preferred issues increased only \$1,595,957.

STOCK—SURPLUS EARNED AND DIVIDENDS PAID

Year Ended December 31	Surplus After All Prior Charges, incl. Depreciation and	Preferred Stock Dividend	Balance for Common	Common Divider	
Teal Ended December 31	Federal Taxes	Dividend		Amount	Rate %
1924	\$7,028,349 7,851,357	\$3,244,608 3,265,434	\$3,783,741 4,585,923	\$3,040,123 3,624,337	8% Cash 8% " 8% "
1926	15,402,555	3,488,880 4,384,858 4,601,630	5,370,360 7,001,192 8,800,708	4,119,970 4,892,352 5,550,574	8% " 8% " 8% "
Increase in 5 years	\$8,712,137	\$1,595,957	\$7,116,180	6,191,892 \$3,151,769	8% "

The balance of \$10,899,921 remaining after the payment of preferred dividends was equivalent to \$3.52 per share upon the average number of shares of common stock outstanding during the year and to \$3.27 per share upon the number of fully paid shares outstanding at December 31, 1929.

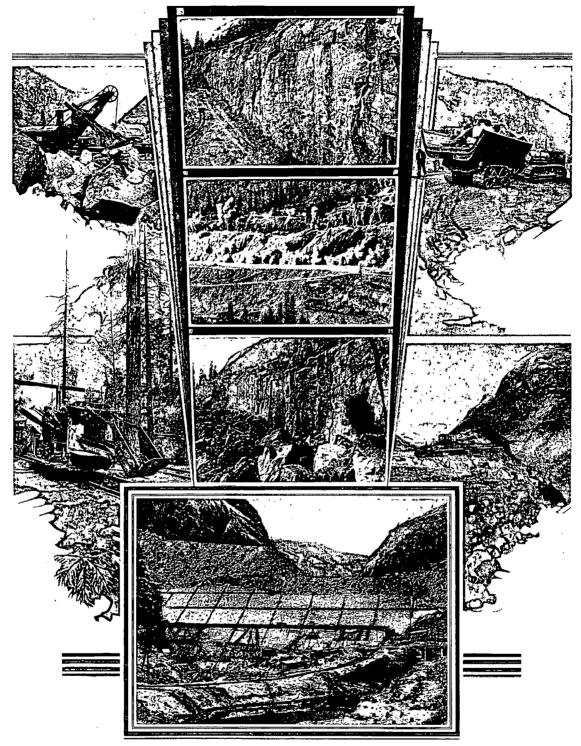
The utilization of common stock as a means of financing a substantial part of new construction has enabled the Company to secure new capital from the sale of bonds and preferred stock at lower cost. This, in turn, has increased the remainder of surplus available for distribution to common stock after the payment of bond interest and preferred stock dividends. This tendency toward the lower cost of senior money may be illustrated by the statement that in 1924 a substantial amount of bond money was secured at an average cost of 6.15%, whereas in 1928, four years later, the cost was 4.86%. (No bonds were sold in 1929). Similarly, preferred stock money in 1925 cost 6.22%, as against 5.57% in 1929.

The steadily improving investment position of the common stock is also in part attributable to the policy of reinvesting in the business a portion of annual earnings. In the twenty-four years since organization, the balance of earnings after the deduction of operating and maintenance costs, taxes and interest charges, aggregated \$187,449,000. Of this amount only \$85,170,000, or 45.4%, was disbursed in cash dividends, the remainder being used to retire bonds or reinvested in the property through the medium of surplus and reserves, as shown by the following summary:

DISPOSITION OF BALANCE REMAINING AFTER OPERATING COSTS AND INTEREST CHARGES SINCE ORGANIZATION OF COMPANY

Cash Dividends	\$85,170,000
To Retire Bonds	26,518,000
Reinvested in the Property	35,729,000
For Replacements and Rehabilitation.	
Other Purposes	1,125,000
Total	197 440 000
10001	,101,449,000

[10]



SOME VIEWS OF MOKELUMNE PROJECT

The central section shows granite hillside just before firing a "big shot," consisting of twenty-five tons of dynamite; the blast; and part of the 160,000 tons of rock torn from the mountain by this blast. Remaining views show some of the equipment used on the Mokelumne job. (Lower) The upstream face of the partly finished dam which, when completed, will be the largest rockfill dam in existence.

BALANCE SHEET ITEMS CURRENT FINANCIAL CONDITION

Including \$14,541,168 advanced from working capital for construction purposes and subject to reimbursement of the treasury through the issuance of additional securities, working assets at December 31, 1929, aggregated \$52,671,665, or more than three times the \$15,101,558 of current liabilities, including in the latter \$9,070,926 of interest and taxes accrued but not then due. Net working assets amounted to \$37,570,107, or \$12,946,103 in excess of the corresponding figure in 1928. The Company has no floating debt, nor has it had any for upwards of fourteen years. Its ample liquid assets enable it to take advantage of all cash discounts offered for the prompt payment of bills, and a saving of \$143,151 from this source alone was effected during the past year.

WORKING ASSETS AND LIABILITIES

	December 31, December 31, 1929		Increase	Decrease
Current Assets: Bond Redemption Funds. Material and Supplies. Bills and Accounts Receivable (Less Reserve for Uncollectible Accounts). Due on Stock Subscriptions. Underlying Bonds bought in advance for Sinking Funds. General and Refunding 5% Bonds issued against Construction. Cash. Interest Accrued on Investments. Other Investments. Advances for Construction, Leased Properties. Advances for Construction, including Construction Materials	5,540,085 8,509,347 1,310,378 1,311,000 975,000 20,287,631 20,554 147,347 4,784,966	6,775,652 952,352 1,076,000 975,000 5,866,250 2,372 230,628 4,323,597	1,733,695 358,026 235,000 14,421,381 18,182 461,369	83,281
and Supplies	9,756,202		\$14,432,971	
Current Liabilities: Bonds Called but not Redeemed Accounts Payable Drafts Outstanding Meter and Line Deposits Unpaid Coupons Interest Accrued but not due Taxes Accrued but not due Dividends Declared	1,878,145 682,490 1,201,988 558,233 2,399,861 6,671,065 1,678,466	2,728,423 393,583 1,076,950 477,349 1,989,454 5,311,168 1,441,853	288,907 125,038 80,884 410,407 1,359,897 236,613	850,278
Total Liabilities				

PLANTS AND PROPERTIES

At the beginning of the year the cost of the Company's properties (excluding investments and current assets) as shown in the item "Plants and Properties" on its balance sheet was			\$375,585,886
Gross expenditures for additions, betterments and improvements during 1929 amounted to	\$35,347,194		
Less charges against depreciation reserve created by annual appropriations out of operating revenues for property renewed or replaced or otherwise disposed of as being of no further service	3,781,890	\$31,565,304	
There was added through acquisition of the properties of minor concerns		136,647	31,701,951
Total plant and properties as shown by consolidated balance sheet, December 31, 1929			\$407,287,837

[12]

An active program of construction designed to meet and also to anticipate the constantly growing demand for the Company's services was pursued during 1929, the net additions to plant account, after the deduction of all realized depreciation, amounting to \$31,565,304. This represented the largest outlay for construction purposes in any single year in the Company's history, and included substantial expenditures in every major phase of its operations. Approximately \$13,900,000 was spent in the construction of natural gas mains and holders and the compressor station at Kettleman Hills; \$2,566,000 was expended on the Mokelumne project, and \$1,242,000 on account of the installation of new steam electric generating equipment at Station "A", San Francisco. Further details of this and other construction work are briefly outlined on page 18.

A small distribution system owned by the Downieville Electric Light Company, and the properties of the Yuba River Power Company, consisting of an electric generating system of which the Company here-tofore purchased the entire output, were acquired during the year. In conformity with the Company's policy of maintaining the simplicity of its corporate, financial and operating structures, the properties of the California Telephone and Light Company, of which control was acquired in April, 1923, were formally transferred to the Pacific Company at the close of July, 1929.

As indicated in the following table, the net addition to the Company's fixed assets since its organization in the latter part of 1905 aggregated \$334,508,003, of which almost \$310,000,000, or more than three-fourths of the Company's total plant account, represents properties constructed or acquired under the authorization of the Railroad Commission of the State of California, which assumed jurisdiction over the public utilities of the State early in 1912:

YEAR	Construction	Other Properties Acquired	Total
1906	\$3,860,244	\$13,820,125	\$17,680,369
1907	3,674,475	47,861	3,722,336
1908	2,099,997		2,099,997
1909	1,746,706	90,632	1,837,338
1910	2,879,159	593,766	3,472,925
1911	2,248,521	4,768,950	7,017,471
1912	7,495,764	404,285	7,900,049
1913	7,406,416	389,208	7,795,624
1914	2,733,949	4,182	2,738,131
1915	2,089,447	120,478	2,209,925
1916	3,658,426	- 12,681	3,671,107
1917	2,781,530	1,797,062	4,578,592
1918	1,818,704	*6,406	1,812,298
1919	3,181,909	11,556,299	14,738,208
1920	10,600,209	1,211	10,601,420
921	18,040,061	333	18,040,394
922	16,422,278	1,132,582	17,554,860
923	17,044,713	1,724,585	18,769,298
924	29,937,668	220,408	30,158,076
925	24,607,648	29,769	24,637,417
926	15,793,347	1,692,084	17,485,431
927	12,587,531	**3,453,736	9,133,795
928	13,453,358	61,697,633	75,150,991
929	31,565,304	136,647	31,701,951
Total	\$237,727,364	\$96,708,639	\$334,508,003

^{*}Decrease.
**After deducting water and telephone properties sold.

\$ 1,00,000

CAPITALIZATION:

The aggregate par value of all bonds and stocks outstanding in the hands of the public at the close of 1929, including \$14,517,600 preferred and common stock subscribed but not yet fully paid or issued, was \$388,684,195, the ownership of these securities being distributed among approximately 110,000 investors. Seventy per cent of all securities presently outstanding were issued by authority of the Railroad Commission of California, were sold at prices and upon terms approved by it, and the application of the proceeds was accounted for in detail to the Commission in accordance with the regulations prescribed by it.

The Company's financial structure is sound and conservative, being supported by physical assets having a value substantially in excess of all outstanding capitalization, and is sufficiently elastic to permit of the issuance of bonds, preferred stock or common stock at such times and in such proportions as are conducive to securing, upon the most favorable terms, the new capital required by its continuing expansion. The following summary shows the ratios of each of these three classes of securities outstanding at the close of 1929:

		Amount Outstanding	Proportion of Total Capitalization
Bonds of P. G. & E. Company and Subsidiary Companies	\$187,068,200 19,956,000	\$207,024,200	53.2%
Preferred Stocks of P. G. & E. Company	\$86,098,482 6,200	86,104,682	22.2%
Common Stock of P. G. & E. Company	\$95,534,957 20,356	95,555,313	24.6%
Total Capitalization in Hands of Public	· · · · · · · · · · · · · · · · · · ·	\$388,684,195	100.0%

FUNDED DEBT:

For the second consecutive year there was a decrease in the amount of bonds outstanding with the public, the total of \$207,024,200 at December 31, 1929, being \$858,800 less than at the close of 1928, and \$1,607,300 less than at the end of 1927. Concurrently with this decrease in funded debt, there was an increase in the value of the fixed assets securing the Company's bonds of \$106,852,942. No bonds were sold during 1929, nor, except for refunding purposes, have any been issued since April, 1926. At December 31, 1929, the book value of the Company's plants and properties, which is considerably exceeded by their present value, was \$407,287,837, while the aggregate of alloutstanding bondswas \$207,024,200.

A detailed statement showing the comparative status of outstanding bonds at the close of each of the last two years follows. Two small divisional issues were retired at their maturity during 1929, while \$1,000,000 of Yuba River Power Company First Mortgage 6% Bonds were assumed in connection with the acquisition of the properties of that Company.

BOND ISSUES	Rate	Due Date	Outstanding Dec. 31, 1929	Outstanding Dec. 31, 1928
P. G. & E. Co. 1st & Refunding Series "B" P. G. & E. Co. 1st & Refunding Series "C" P. G. & E. Co. 1st & Refunding Series "D" P. G. & E. Co. 1st & Refunding Series "B" P. G. & E. Co. 1st & Refunding Series "E" P. G. & E. Co. General and Refunding. C. G. & E. Corp. Unifying and Refunding. C. G. & E. Corp. Gen. Mtge. & Coll. Trust. Bay Counties Power Co. 1st Cons. Mtge. Bay Counties Power Co. 2nd Mtge. Yuba Electric Power Company. Valley Counties Power Co. 1st Mtge. Calif. Central Gas and Electric Co. Blue Lakes Water Company United Gas and Electric Company The Standard Electric Co. Galifornia. Suburban Light and Power Co. San Francisco Gas and Electric Company Pacific Gas Improvement Co. Mutual Electric Light Co. Northern Calif. Power Co. 1st Mtge. Keswick Electric Power Co. 1st Mtge. Keswick Electric Power Co. 1st Mtge. Sacramento Valley Power Co. 1st Mtge. Sacramento Valley Power Co. 1st Mtge. Sierra & San Francisco Power Co. 2nd Mtge. Ser. "A" Sierra & San Francisco Power Co. 2nd Mtge. Ser. "A" Sierra & San Francisco Power Co. 2nd Mtge. Ser. "B"	\$\;\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Dec. 1, 1941 Dec. 1, 1952 June 1, 1955 June 1, 1955 June 1, 1955 June 1, 1942 Nov. 1, 1937 Mar. 1, 1933 Sept. 1, 1930 April 1, 1931 June 1, 1929 May 1, 1938 July 1, 1932 Sept. 1, 1933 Sept. 1, 1938 Nov. 1, 1933 Sept. 1, 1933 Sept. 1, 1933 Sept. 1, 1934 Dec. 1, 1948 June 1, 1934 Dec. 1, 1948 June 1, 1931 Feb. 2, 1931 Feb. 2, 1939 Ser.1924 to 1948 April 1, 1949 Jan. 1, 1949 Jan. 1, 1949	\$20,000,000 45,000,000 20,000,000 35,000,000 35,785,000 13,430,000 2,241,000 291,000 182,000 456,000 686,000 1,473,900 219,000 110,000 3,842,000 13,000 41,000 10,500,000 1,000,000 1,000,000 8,456,000	\$20,000,000 45,000,000 20,000,000 35,000,000 35,785,000 14,214,000 2,454,000 377,000 183,000 460,000 460,000 460,000 1,481,900 219,000 5,281,000 136,000 110,000 3,868,000 13,000 5,281,000 13,000 5,281,000 13,000 5,281,000 13,000 5,281,000 13,000 5,281,000 13,000 5,281,000 13,000 5,000 10,000 95,800
Total			\$207,024,200	\$207,883,000

SINKING FUNDS:

Sinking fund operations during 1929 resulted in the retirement of \$1,834,500 par value of bonds, with a net annual saving in interest charges of \$90,785. There was an increase of \$53,243 in the uninvested cash and accrued interest in sinking funds, the relative status of these funds at the close of each of the past two years being summarized as follows:

Character of Sinking Fund Assets	December 31,	December 31,	Additions
	1929	1928	During 1929
Bonds of Company—at par	\$28,797,790	\$26,963,290	\$1,834,500
Cash and Accrued Interest—not yet invested	273,196	219,953	53,243
Total Assets	\$29,070,986	\$27,183,243	\$1,887,743
Net Annual Interest Saving	\$1,451,628	\$1,360,843	\$90,785

The \$28,797,790 par value of bonds held in Sinking Funds at the close of 1929 was acquired by the following means:

From Revenues. In Exchange for Overlying Bonds.	Sinking Funds \$27,263,590 493.000
From proceeds of sale of Common Stock.	1,041,200
	\$28 797 790

[15]

PREFERRED STOCK:

The Company in 1929 sold \$7,253,725 par value of its First Preferred 5½% Stock "over the counter" directly to local investors, at an average price of \$24.85 per share. This stock, together with \$78,844,757 of First Preferred 6% Stock previously outstanding or subscribed, was held at the close of 1929 by 37,116 stockholders, of whom 32,981, or 88.8%, were California residents.

COMMON STOCK:

In conformity with its policy of making periodical offerings of subscription privileges to common stockholders, the Company extended to holders of record at the close of business on February 8, 1929, the right to purchase, at its par value of \$25 per share, additional common stock in the proportion of one new share for each ten shares held. This was the fourth consecutive "Par Offering" at approximately annual intervals.

In September, 1929, two further offerings of "Rights" were made concurrently. The first, designated as "Par Offering No. 5," permitted common shareholders of record on September 25th to purchase additional stock at par in the above ratio. The second, designated as "Special Offering 'A'," extended the added right to purchase at \$55 per share, additional stock to the extent of ten per cent of shares held. By exercising both these rights, common stockholders were, in effect, enabled to purchase two new shares for each ten shares owned at an average price of \$40 per share.

All of these offerings met with an excellent response, subscriptions up to the close of the year aggregating \$22,599,933 par value, or 99.33% of the total stock offered for subscription. A premium of \$9,311,440 was realized from the sale of common stock during this year, which offset to that extent the discount and expense of \$9,340,345 on capital stock previously outstanding on the Company's balance sheet.

In the latter part of 1929, \$611,667 par value of common stock was issued in exchange for the entire outstanding preferred and common stock of the Snow Mountain Water and Power Company, of which further details are given on page 20. The historical cost of the properties of the acquired Company, after deducting all prior liens, was \$1,883,578, equivalent to \$77 per share of the common stock issued in exchange. A minority interest (45.83%) of the outstanding stock of the Vallejo Electric Light and Power Company was also acquired, \$229,167 par value of common stock being issued in exchange therefor.

DISTRIBUTION OF STOCK OWNERSHIP:

At December 31, 1929, the ownership of the Company was vested in 61,131 shareholders, of whom 37.116 held preferred stock and 24,015 common stock.

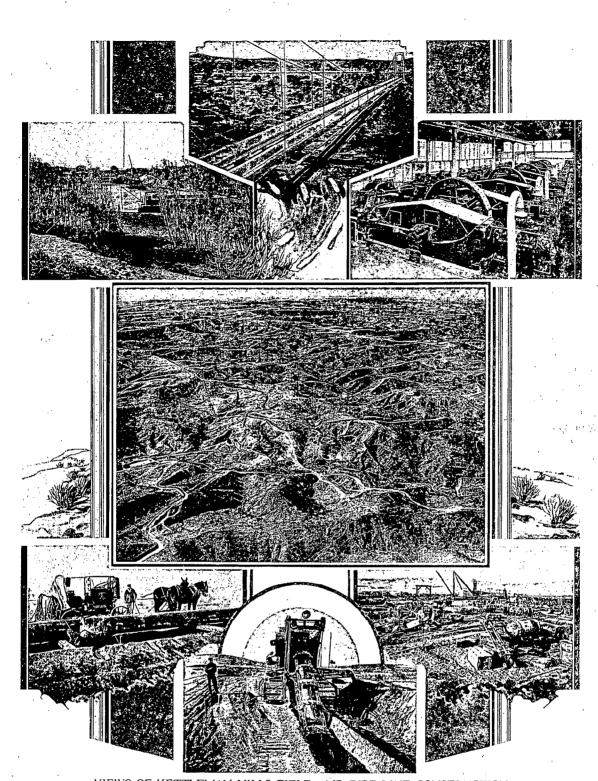
As indicated by the following table, 5,992 stockholders own small blocks of from one to five shares each, and 49,393, or 80.8% of all stockholders, own not to exceed one hundred shares, or \$2,500 par value.

SUMMARY SHOWING DISTRIBUTION OF STOCK

Size of Holdings	Number of Stockholders		
	Preferred	Common	Total
Stockholders owning or subscribing for: 1 to 5 shares of the par value of \$25. 6 to 10 shares of the par value of \$25. 11 to 100 shares of the par value of \$25. 101 to 1000 shares of the par value of \$25. Over 1000 shares of the par value of \$25.	22,739	2,766 3,606 13,310 3,977 356	5,992 7,352 36,049 11,144 594
Total	37,116	24,015	61,131

California stockholders numbered 49,159, or 80.4%, less than one-fifth of all stockholders residing outside of the State.

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VIEWS OF KETTLEMAN HILLS FIELD AND PIPE LINE CONSTRUCTION
(Center) Airplane view of part of Kettleman Hills oil fields. (Upper, left to right) Natural gas pipe line crossing San
Joaquin River and Panoche Creek; and interior of compressor station at Kettleman. (Lower) Welding a joint in the
natural gas pipe line; trenching machine digging a ditch 5 feet deep and 32 inches wide; and view of equipment assembled at Kettleman Hills awaiting construction of \$1,000,000 compressor plant.

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OPERATING AND CONSTRUCTION DEPARTMENTS:

Matters relating to the operating and construction departments are more fully dealt with in the following abstract of report presented at the annual meeting of stockholders by Mr. P. M. Downing, First Vice President and General Manager:

REPORT OF FIRST VICE PRESIDENT AND GENERAL MANAGER

Following are some of the more important items of construction during 1929:

ELECTRIC DEPARTMENT—CONSTRUCTION

Spaulding Power House No. 3, the first fully automatic generating plant on the Company's system, was placed in service February 21, 1929.

The enlargement of Bear River Canal, to accommodate the diversion of an additional 120 cubic feet per second of water from the Nevada Irrigation District, was started August 7, 1929, and was 36% complete at the close of the year.

On September 27th the work of reconstructing the Cow Creek Power House for semi-automatic operation was started, and at December 31st was 85% complete.

A new 120 foot constant angle arch type dam to replace the old log crib Lyons Dam on the south fork of the Stanislaus River was started June 17th, and is 80% complete. The new dam will provide the necessary storage for water allotted to the Tuolumne Water District for irrigation and domestic uses, making available the storage from Strawberry reservoir for use through Spring Gap, Stanislaus and Melones Power Houses.

Construction of the Salt Springs Dam on the Mokelumne River was continued throughout the year and at its close was 54% complete, with 1,500,000 cubic yards of material in place. Approximately \$8,900,000 had been expended on the Mokelumne project at December 31, 1929.

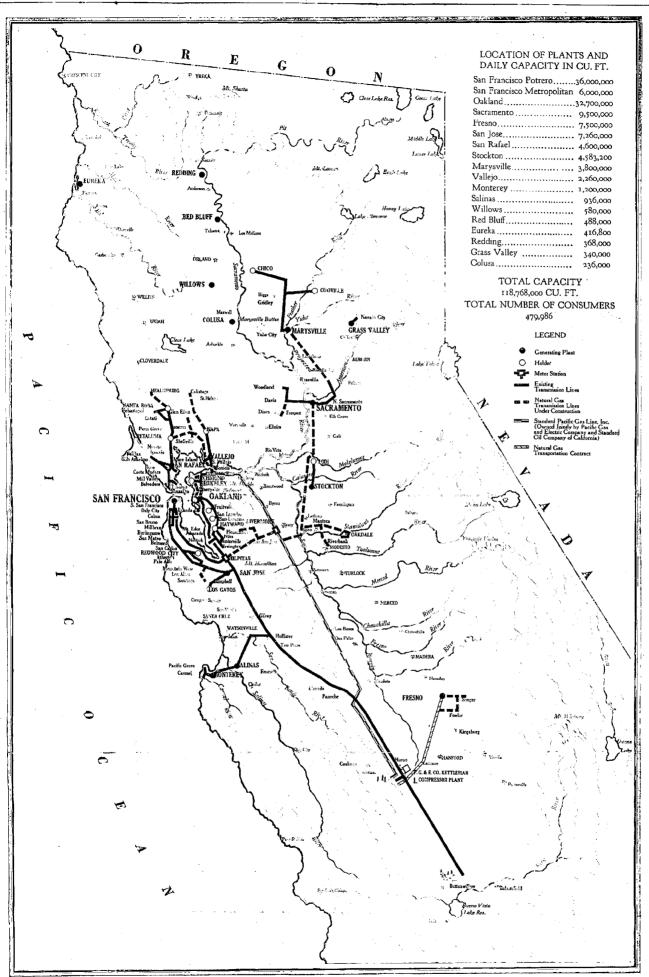
Work was begun upon the enlargement and modernization of the Company's steam electric generating plant (Station "A") in San Francisco, including the installation of two turbo generators with a combined capacity of 134,000 horsepower, and three boilers to operate at 1,350 pounds pressure. Approximately \$1,242,000 had been expended upon this work at the close of the year, and the new units will be ready for operation in the latter part of 1930. Additional units which will increase the capacity of this plant to 300,000 horsepower will be added as required.

Other items of electric department construction include the building of a 60,000 volt high tension line to serve the Columbia Steel Company and other industrial consumers at Pittsburg, California; changing the present 11,000 volt line from Salinas south to San Ardo to 60,000 volts; reconstructing the Sierra power line from Gilroy to Lagunitas for 110,000 volt operation; rebuilding the line between Mountain View and Davenport to carry 60,000 volts; and constructing a new 60,000 volt line from Olema substation to Bolinas in order to improve the service to the trans-Pacific radio station at the latter point.

GAS DEPARTMENT—CONSTRUCTION

The Company's first natural gas transmission line from the Kettleman Hills to the San Francisco Bay was completed and the delivery of natural gas in San Francisco and Oakland begun on August 16, 1929. This line, of which the main section is 22 inches in diameter, with a 20-inch branch into San Francisco and a line of similar diameter into Oakland, Richmond, and other East Bay cities, is 246 miles in length. A further extension of 51 miles southward to connect with the Buttonwillow gas field was completed early in November, thus providing an additional proven source of supply and increasing the total length of the line to 297 miles. So far natural gas has been drawn almost exclusively from two wells in the Kettleman Hills field, which alone have proved themselves capable of producing upwards of two hundred million cubic feet of gas per day, or very substantially in excess of the Company's present demands.

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ARTIFICIAL AND NATURAL GAS SYSTEMS OF PACIFIC GAS AND ELECTRIC COMPANY

Under long term contracts with leading producers, the Company is assured of the prior rights to the natural gas from a large acreage in both the Kettleman and Buttonwillow fields. The developments already made in the Kettleman Hills field would seem to justify the characterization applied to it as the largest natural gas reservoir in the world, the life of which promises to be greatly prolonged by the policy of the State to prevent the uneconomical wastage of gas. The Buttonwillow field, so far as it has been developed, is an area of dry gas, which will undoubtedly be kept in the ground unless and until it is needed, and will thus constitute a valuable reserve. Deeper drillings in this field indicate the existence of lower and more prolific gas zones than those already opened up. Other gas-bearing areas in the San Joaquin Valley, of an unknown but probably large extent, will undoubtedly be developed to production.

Construction work was begun in October, 1929, on a second natural gas transmission line extending from Kettleman Hills to Richmond, California, there connecting with the first line and forming a loop through which gas may be transported in either direction, thus assuring continuity of service to the major part of the Company's distributing area. This line will be owned and operated by the Standard-Pacific Gas Line, Inc., a new company to be controlled jointly by the Standard Oil Company of California and the Pacific Gas and Electric Company, each of which will own a one-half interest in this new subsidiary, and will be entilled to one-half of the capacity of the pipe line. This joint ownership and operation avoids the duplication of investment and facilities which would have followed the construction of separate pipe lines. The main section of this line is 26 inches in diameter and is designed to deliver 138,000,000 cubic feet of natural gas per day without booster stations. When necessary, the construction of intermediary compressor stations will substantially increase this capacity. The second line will be connected with the Company's first pipe line by a 22 inch main extending from Tracy to Milpitas, near the southern extremity of San Francisco Bay.

A branch line approximately eighty miles in length, extending north from a point near Tracy to supply Stockton, Sacramento and other communities is now under construction. A second branch pipe line will be laid across the Carquinez Bridge to supply Vallejo, connecting with the Company's present San Rafael-Santa Rosa system at Petaluma, with extensions to serve as far north as Calistoga and Healdsburg, almost four hundred miles from the southern end of the Company's pipe line at Buttonwillow. On the completion of these extensions the Company will have a natural gas transmission and distribution system exceeding 6,000 miles and will be able to supply the new and cheaper service to nearly all of its present customers. At only a few outlying places will it be necessary to continue the service of manufactured gas.

All of these lines, with the exception of the second line above referred to, will be owned and operated entirely by the Pacific Gas and Electric Company. Altogether, approximately 600 miles of large capacity gas mains were constructed during 1929.

Additional gas storage capacity was provided through the erection of a 10,000,000 cubic foot gas holder in San Francisco, an 8,000,000 cubic foot holder in Oakland, and smaller holders in Marysville, Redding, and Eureka.

The construction of a compressor station at Kettleman Hills for the purpose of introducing into the Company's mains at a uniform pressure of 400 pounds per square inch the natural gas received from the Buttonwillow main and the Company's gathering lines at Kettleman was undertaken during 1929 and completed early in 1930.

ACQUIRED PROPERTIES

On May 1, 1929, the Company purchased and assumed operation of the electric generating and distributing system of the Downieville Electric Light Company, operating in Sierra County.

As of July 31, 1929, all of the properties of the California Telephone and Light Company, of which the entire outstanding capital stock was already owned by the Pacific Gas and Electric Company, were transferred to the latter and became a part of its operating system.

Effective October 7, 1929, the Company acquired the entire interest of the Yuba River Company in the Bullard's Bar dam, reservoir, power plant, and other facilities located in Sierra and Yuba Counties.

Under the terms of an agreement made on September 12, 1929, with the owners of a majority of the preferred and common stock of the Snow Mountain Water and Power Company, the Pacific Gas and Electric Company by the close of 1929 had acquired all of the outstanding stock of the former.

The Snow Mountain Company owns valuable water rights on the Eel River. It also owns Gravelly Valley reservoir, with a capacity of 73,000 acre feet and a hydro-electric generating and transmission system in Mendocino, Sonoma and Napa Counties, California. Its plant on the Eel River at Potter Valley, which has a present installed capacity of approximately 12,000 horsepower, will be modernized and enlarged.

ELECTRIC DEPARTMENT—OPERATION

Sales of electricity during 1929 aggregated 1,948,656,000 kilowatt hours, an increase of 174,434,000 kilowatt hours, or 9.83% compared with 1928.

At the close of the year, the connected load of the 549,816 electric customers receiving service from the Company aggregated 2,249,206 horsepower, an increase of 119,346 horsepower during 1929. The chart on page 32 illustrates graphically the consistent growth of the Company's electric load during the past ten years, the increase in connected load for lighting and power purposes having been particularly rapid, as indicated in the following summary:

CONNECTED LOAD IN HORSEPOWER

			Increase	
	1929	1919	Н. Р.	Per Cent
Commercial and Domestic Lighting	751,735 1,497,471	313,921 459,887	437,814 1,037,584	$\begin{array}{c} 139.5\% \\ 225.6\% \end{array}$
Total	2,249,206	773,808	1,475,398	190.7%

Electric service is now being furnished to 362 cities and towns, of which 329 are served directly and 33 indirectly, and to an extensive rural area. The well diversified character of the Company's electric business is indicated by the fact that the average load throughout the year was 61.9% of the maximum demand.

The Company at December 31, 1929, operated 34 hydro-electric plants with a total installed capacity of 674,597 horsepower, and eight steam electric generating stations with an installed capacity of 244,369 horsepower. The aggregate installed capacity of the 42 plants in service at the close of 1929 was 918,966 horsepower, as follows:

HYDRO PLANTS

Alto Diagon Co	п. Р.		H. P.
Alta, Placer County	2,681	Inskip, Tehama County	8 043
American River, El Dorado County	8,184	Junction City, Trinity County	2 641
Bullard's Bar, Yuba County	10,891	Kllarc, Shasta County	$\frac{2}{4},021$
Centerville, Butte County	8,579	Lime Saddle, Butte County	$\frac{1,021}{2,681}$
Coal Canvon, Butte County	1 340	Melones, Tuolumne County.	36,193
Coleman, Shasta County	99 118	Phoenix, Tuolumne County	
Colgate, Yuba County	20 878	Pit No. 1, Shasta County	1,608
COW Creek, Shasta County	2 011	Pit No. 3, Shasta County	93,834
De Sabla, Butte County	17 426	Potter Valley Mondosine County	108,580
Deer Greek, Nevada County	0.916	Potter Valley, Mendocino County	
Drum, Placer County	73 726	South, Tehama County.	5,362
El Dorado, El Dorado County.	29 510	Spaulding No. 1, Nevada County	10, 724
Electra, Amador County	33,512	Spaulding No. 2, Nevada County	5,027
Folsom, Sacramento County	26,810	Spaulding No. 3, Nevada County	9,383
Hat Crook No. 1 Shorts County	5,027	Spring Gap, Tuolumne County	10,054
Hat Creek No. 1, Shasta County	16,756	Stanislaus, Tuolumne County	45.576
Hat Creek No. 2, Shasta County	16,756	Volta, Shasta County	9,383
Halsey, Placer County	16,756	Wise, Placer County	16,756
		<u>.</u>	
•		Total Hydro	674,597
	000475	77 / 7777	
		PLANTS	
San Francisco	H. P.		H. P.
San Francisco	85,791	Eureka	12,064
Oakland	. 83,110	Monterey	1,340
Sacramento	. 23,458	Salinas	402
North Beach (San Francisco)	. 36,193	Stockton	2 011

Following is a brief summary of electric transmission and distribution facilities owned or operated by the Company at December 31, 1929:

Total Hydro and Steam..... 918,966

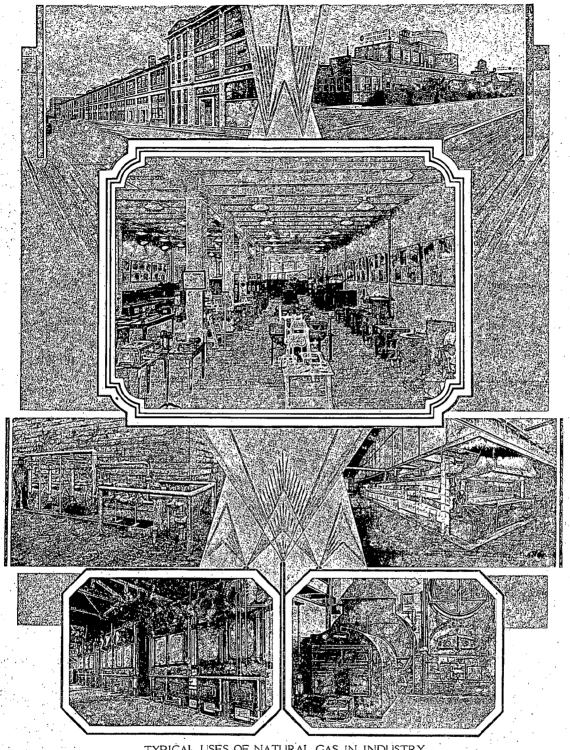
Miles of 220,000 volt lines. 278.85 Miles of 110,000 volt lines. 868.09 Miles of 60,000 volt lines. 2,529.86 Miles of 30,000 volt lines. 153.80	·
Total high tension lines	3,830.60 miles
Total distribution	
Total transmission and distribution system	

There are 81,070 transformers connected with the distribution system, having a capacity of 1,052,309 kilowatts.

GAS DEPARTMENT-OPERATION

During the year 22,041,345,500 cubic feet of gas were sold, an increase of 982,976,800 cubic feet, or 4.7%. This increase in the volume of gas sold is, however, substantially less than the actual ratio of increase of the Company's gas business, measured from the standpoint of heating capacity rather than volume. In the first nine months of 1929, during which only a relatively small proportion of natural gas was sold, the volume of gas sales increased 8.3%, compared with the same period of 1928. In the last quarter of the year, however, the volume of sales showed a reduction of 5.6%, this decrease being attributable to the substitution in Oakland and San Francisco in the latter months of the year of reformed natural gas having a heating capacity of 615 B. T. U.'s per cubic foot in place of the 550 B. T. U. oil gas previously furnished; and also to the introduction of straight natural gas with a heating content of approximately 1150 B. T. U.'s per cubic foot in the Company's San Jose, Fresno and Coast Valleys Divisions and in sections of Alameda County in the East Bay Division.

From August 16th until December 31, 1929, approximately 6,550,000,000 cubic feet of natural gas was received by the Company's natural gas division, daily deliveries averaging 47,800,000 cubic feet, with a maximum day's delivery during this period of 68,677,000 cubic feet.



TYPICAL USES OF NATURAL GAS IN INDUSTRY

Natural gas will be an important factor in industrial development of the Company's territory. Customers utilizing large quantities of natural gas include American Can Company, San Francisco; California Cooperative Producers Canning Company, Oakland (meter installation shown); Continental Baking Company, San Francisco (typical oven). The lower pictures show the pumping plant of the Spring Valley Water Company at Belmont and gas boilers installed in the American Can Company's San Francisco plant. Central picture shows Company's gas appliance salesroom at 31 Beale St., San Francisco.

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BUSINESS DEVELOPMENT:

Aggressive sales policies in all departments were continued throughout 1929. Contracts for new business estimated to yield an annual revenue of \$5,381,889 were signed, at a total sales expense of \$1,041,763. This is equivalent to \$5.17 of additional business for each \$1.00 of sales cost. Contracts for new business signed during 1929 exceeded 1928 by \$802,591, with an increase in sales cost of \$216,486.

ELECTRIC SALES

Sales activities in the Electric Department were productive of contracts estimated to yield an additional annual revenue of \$3,924,053.

Several of the relatively few isolated plants (i. e. plants operated by individual industries) remaining in the Company's territory were closed down during the year, these industries now purchasing electricity directly from the Company. Contracts covering installations of this character, to yield a revenue of \$137,107 annually, were signed during 1929.

GAS SALES

Coincident with the completion in August, 1929 of its first natural gas pipe line, the Company inaugurated a vigorous educational and sales campaign devoted to the introduction of natural gas as an industrial fuel. Among some of the larger contracts of this character negotiated in the last few months of the year, the following are typical of this varied and important field for the utilization of natural gas:

Estimated A Consump	
Illinois Pacific Glass Company. 475,000,000	cu. ft.
Pacific Coast Glass Company	
Western Meat Company	. 44
Hazel Atlas Glass Company	"
Spring Valley Water Company Pumping Station—Belmont 159,885,000	"
U. S. Veterans' Hospital—Palo Alto	. 44
Metal & Thermit Company	
Kraftile Company	4
Standard Sanitary Manufacturing Company—Richmond165,000,000	"
Standard Sanitary Manufacturing Company—San Pablo165,000,000	, -α .
Wheeler, Reynolds & Stauffer	".
Western Sugar Company	и

Another extensive market for the increased use of gas lies in the field of domestic consumption. There are already 442,000 domestic gas customers on the Company's lines, and many more will be reached through extensions to communities not hitherto served. Manufactured gas has heretofore been utilized chiefly for cooking purposes, and in this respect its displacement by the cheaper natural product will unquestionably stimulate a more liberal consumption. The use of manufactured gas as a heating agent has, however, in the past been limited by considerations of cost. A recent survey indicates that of the homes in which central furnaces and boilers are installed for house heating purposes, 75% are using wood or coal, 21% gas and 4% oil. It also appears that only about 8% of the fireplaces in the territory covered by this survey are equipped with gas heaters, and but 25% of the individual room heaters now utilize gas as a fuel. These figures serve to indicate the very large and promising potential market for natural gas for domestic heating purposes. Climatic conditions in the territory served by the Company, particularly in the San Francisco Bay region, are peculiarly adapted to the use of gas as a house heating medium, and the relative economy and desirability of natural gas for this purpose is such that we believe it to be merely a question of time until this fuel is utilized practically to the exclusion of all other heating agents. The sale of domestic conversion burners to equip coal, wood and oil heating systems for burning natural gas is being vigorously prosecuted in those sections in which natural gas has been made available up to the present time, with highly satisfactory results.

LOAD BUILDING APPLIANCE SALES

During the year, \$1,902,971 worth of merchandise was sold directly by the Company to its customers, as follows:

Mazda lamps, over the counter sales\$	57,313
Table and floor lamps, kitchen lighting units, porch lights, Duplex-a-lites	
and lamp kits	157,135
Electric ranges, water heaters and portable electric heaters	674,552
Gas ranges, water heaters, portable gas heaters, furnaces and burners 1	,013,971
Total Merchandise Sales	002 071

The foregoing figures cover merely merchandise sold directly by the Company in pursuance of its policy of creating and encouraging a demand for appliances in order to broaden the market for its sales of gas and electricity, and do not include the much larger volume of appliance sales by dealers throughout the territory served. The Company has always recognized the progressive electric and gas appliance dealer as an integral part of the industry and has endeavored to maintain cooperative and harmonious relations with him. Its policy in this respect is summarized in the following widely disseminated statement:

STATEMENT OF PACIFIC GAS AND ELECTRIC COMPANY APPLIANCE SALES POLICIES

"We believe that the public must be served.

That best public service can only come from a united industry, composed of the utility, appliance manufacturers, jobbers and dealer trade.

That an organized effort by the entire industry is essential if the maximum amount of business is to accrue to each group through creation of consumer acceptance of our products.

That such a united industry can and will successfully compete with other organized industries to the end that a fair share of the public buying power will be obtained.

That it is the *duty* of the utility particularly to do pioneering selling in that appliance field where there is no public demand or due to special conditions no adequate retail profit for creative and aggressive selling by retailers.

That the utility, in addition to supplying quality service at fair rates, assume leadership in the sale of quality appliances at established retail prices, adhering to ethical, constructive merchandising methods on a basis that will encourage the activity of all legitimate retailers.

That such ethical leadership has stimulated and will continue to stimulate public buying of appliances, installation work, and general supplies.

That it is the desire of the Pacific Gas and Electric Company to continue encouraging as many legitimate retail appliance dealers as can economically operate; to co-operate with such natural outlets by financing and executing constructive educational selling and advertising campaigns.

That merchants and dealers can and should retail appliances at prices fair to themselves and the public by such methods as have been found to be sound by successful retailers.

That the manufacturers and jobbers can best contribute to this plan by supplying well advertised merchandise of unquestionable quality at prices which permit the seller a legitimate profit margin.

The Pacific Gas and Electric Company will continue:

To keep an open mind. To be guided by facts. To hold out to all groups the right to full discussion. To hold to those policies we believe to be right but to quickly concede where we find we are wrong."

PERSONNEL:

EMPLOYEES' SERVICE RECORD:

At the close of 1929, there were 12,868 employees in the Company's service, of whom 4,954 had a record of five or more years of continuous employment, as follows:

Number of employees holding 5-year badges	.3,202
Number of employees holding 10-year badges.	. 712
Number of employees holding 15-year badges.	563
Number of employees holding 20-year badges.	. 279
Number of employees holding 25-year badges	. 113
Number of employees holding 30-year badges.	. 50
Number of employees holding 35-year badges.	. 21
Number of employees holding 40-year badges.	. 14
· ·	
Total	4 954

The holders of these service badges represent approximately one-half of the permanent operating personnel.

PAYROLL:

Salaries and wages, including both operating and construction forces, aggregated last year \$20,147,691, of which \$11,629,661 was paid to operating employees and \$8,518,030 to those engaged in construction work. The average monthly wages of all employees was \$151.45, a slight increase over 1928, and 69% in excess of the pre-war average.

PENSIONS:

At December 31, 1929, 103 pensioners were receiving pensions under a system placed in effect some years ago. Payments in 1929 aggregated \$78,823, and in the past seventeen years \$655,218.

PACIFIC SERVICE EMPLOYEES' ASSOCIATION:

This is a voluntary association of the Company's employees, supported by contributions from its members and also receiving financial aid from the Company. It had a membership of 7,835 at the close of 1929. Its activities embrace educational and social work among employees, the payment of death benefits and the rendering of temporary financial assistance in case of need.

An increasing number of employees avail themselves of the excellent educational courses conducted by the Association, 476 certificates having been issued to students completing educational courses in 1929, and an aggregate of 2,446 certificates having been issued since the inauguration of these educational activities several years ago.

An employees' disability plan, with a present membership of 5,235, is conducted by the Association, the amount paid in benefits during 1929 aggregating \$49,111.

ACCIDENT PREVENTION:

A review of the past few years shows a marked decrease in the number of accidents. This is undoubtedly due, in good measure, to the consistent accident prevention work that has been carried on over a period of several years. Since 1925 the number of lost time accidents per 100 employees has decreased 50%, and the number of days lost per 100 employees has decreased by more than 40%.

Fresno Division continued with a perfect record, having had no lost time accidents since October 19, 1926.

The Sacramento Gas Department has operated over two years without a lost time accident; and the San Francisco Division since 1924 has reduced the number of lost time accidents per 100 employees 81% and the number of days lost per 100 employees 91%.

DISTINGUISHED SERVICE MEDALS:

Three employees were recipients of John A. Britton Distinguished Service medals, awarded in recognition of unusually meritorious service, as follows:

William Wallace Forbis, lineman in the North Bay Division, received a gold medal for prompt action and presence of mind in saving the life of Frank Nelson, a fellow workman, at the risk of his own.

John W. Dean, lineman, and Joseph Murphy, apprentice lineman, East Bay Division, were awarded gold medals for courageously attempting to save the life of a young man under conditions which imperiled their own personal safety.

GOOD HOUSEKEEPING AWARDS:

The system of "good housekeeping" awards inaugurated some years ago to encourage among employees an active interest in the efficient operation and general appearance of offices, electric and gas generating plants, substations, warehouses and other buildings, has had perceptible results. A record of awards made during 1929 follows:

AWARDS FOR "GOOD HOUSEKEEPING"

Offices: Division Offices District Offices Agency Offices	Sacramento King City	$\mathbf{Monterey}. \dots \dots$	Salinas Napa
Electric Department: Hydro Power Plants. Steam Stations. Sub-stations.	"S", San Francisco	"B", Sacramento	"C", East Bay
Gas Department: Production Plants Holder Stations Meter and Regulator Shops, Class "A" Meter and Regulator Shops, Class "B"	Petaluma Sacramento	Santa Rosa San Rafael	North Beach Marysville

In closing this report, I desire to express to the officers and employees who have shared with me the responsibility of conducting the Company's affairs, my sincere appreciation of their loyal and effective service.

For the Board of Directors,

A. F. HOCKENBEAMER, President

PACIFIC GAS AND ELECTRIC COMPANY AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENT OF INCOME AND PROFIT AND LOSS FOR THE YEAR ENDED DECEMBER 31, 1929

GROSS OPERATING REVENUE.		\$64,440,588.11
OPERATING EXPENSES: Maintenance. Operating, distribution, and administration expenses. Taxes. Depreciation.	21,453,195.83 6,813,406.34	
Total		38,725,424.11
NET OPERATING REVENUE		\$25,715,164.00
MISCELLANEOUS INCOME		380,306.30
GROSS INCOME		\$26,095,470.30
DEDUCT: Interest on bonds Miscellaneous interest		
Total. Less interest charged to construction.		
Remainder Amortization of bond discount and expenses		
Total NET INCOME		10,354,984.90 \$15,740,485.40
SURPLUS, JANUARY 1, 1929		15,528,324.15
PROFIT AND LOSS CREDITS		221,678.92
SURPLUS BEFORE DEDUCTING DIVIDENDS		\$31,490,488 47
DIVIDENDS ON PACIFIC GAS AND ELECTRIC COMPANY CAPITAL STOCKS: Preferred Common.	\$4,840,565.00 6,191,891.77	
Total		11,032,456.77
SURPLUS, DECEMBER 31, 1929		\$20,458,031.70

CERTIFICATE OF AUDIT

We have audited the accounts of the Pacific Gas and Electric Company and subsidiary companies for the year ended December 31, 1929, and

WE HEREBY CERTIFY that in our opinion the above consolidated statement of income and profit and loss is correct.

San Francisco, March 17, 1930.

HASKINS & SELLS

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PACIFIC GAS AND ELECTRIC COMPANY

CONSOLIDATED BALANCE

ASSETS

PLANTS AND PROPERTIES		\$407,287,837.16
INVESTMENTS.		1,604,798.42
DISCOUNT AND EXPENSES ON CAPITAL STOCKS	\$9,340,344.86	•
Less premium on common capital stock sold during year 1929	9,311,440.00	28,904.86
SINKING FUNDS AND SPECIAL DEPOSITS:		
Cash on deposit in sinking funds	\$ 59,031.40	
Other cash on deposit	72,203.28	f.
Accrued interest on bonds held in sinking funds.	214,164.95	
Total Sinking Funds and Special Deposits		345,399.63
CURRENT ASSETS:		
Cash\$20,287,630.65		
Cash on deposit with trustees for redemption of bonds	\$20,316,785.65	
Notes receivable	·	
Accounts receivable 6,435,354.70		
Total		
Less reserve for doubtful accounts and notes	8,509,346.80	
Installments receivable from subscribers to first preferred and common capital stocks.	1,310,377.67	
Materials and supplies	5,540,085.15	
Accrued interest on investments	· /	
Total Current Assets.		35,697,148.97
DEFERRED CHARGE: Unamortized Bond Discount and Expenses		9,057,833.07
Total		\$454,021,922.11

CERTIFICATE OF AUDIT

We have audited the accounts of the Pacific Gas and Electric Company and subsidiary companies for the year ended December 31, 1929, and

WE HEREBY CERTIFY that in our opinion the above consolidated balance sheet is correct.

San Francisco, March 17, 1930.

HASKINS & SELLS

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AND SUBSIDIARY COMPANIES

SHEET, DECEMBER 31, 1929

LIABILITIES

CAPITAL STOCKS OF PACIFIC GAS AND ELECTRIC COMPANY (including Stocks subscribed for but not fully paid):	
First Preferred Capital Stock.	
Common Capital Stock	,
Less Owned by Subsidiary Company	95,534,956.67
Total Capital Stocks of Pacific Gas and Electric Company	
CAPITAL STOCKS OF SUBSIDIARY COMPANIES NOT HELD BY PACIFIC GAS AND ELECTRIC COMPANY.	
FUNDED DEBT:	
Pacific Gas and Electric Company Bonds	1
Bonds of Subsidiary Companies 51,239,200.00	
Total Funded Debt.	207,024,200.00
CURRENT LIABILITIES:	
Bonds called but not redeemed \$ 31,310.00 Accounts payable 1,878,144.80 Drafts outstanding 682,490.14 Meter and line deposits 1,201,987.85 Dividends 1,678,465.90 Bond interest due 558,233.12 Accrued interest—not due 2,399,860.58 Accrued taxes—not due 6,671,065.35 Total Current Liabilities	
RESERVES:	
For Northern California Power Company Consolidated Plant Adjustments and Accrued Depreciation	
Insurance—Casualty and Other. 2,252,262.49	
Total Reserves	29,778,137.83
SURPLUS	20,458,031.70
Total	
10(a1	#404,UZI,9ZZ.11

HISTORICAL RECORD OF OPERATING STATISTICS

ELECTRIC GENERATING STATISTICS:

YEAR	Hydro-Electric Plants		Steam-Electric Plants		All Generating Plants		System Load Factor	Peak Demand on
	Number	Installation in H. P.	Number	Installation in H. P.	Number	Installation in H. P.	for Year (Per Cent)	System in H. P.
1914	10	121,059	4	109,517	14	230,576	60.6	166,273
1915	10	122,400	· 4	109,517	14	231,917	59.4	187,051
1916	11	155,027	3	106,568	14	261,595	62.0	189,019
1917	14	164,075	3	106,568	17	270.643	61.6	212,161
1918	13	163,003	3	100,536	16	263,539	63.1	223,465
1919	19	210,924	3	120,643	22	331,567	60.7	250,851
1920	24	263,673	4	156,836	28	420,509	64.9	347,190
1921	28	308,244	. 4	173,592	32	481,836	63.9	356,468
1922	28	417,829	4	173,592	32	591,421	62.5	393,710
1923	26	415,348	4	173,592	30	588,940	64.2	411,454
1924	27	426,239	4	190,349	31	616,588	62.5	460,725
1925	28	534,818	4	190,349	32	725,167	60.0	509,496
1926	28	536,829	4	190,349	32	727,178	60.5	545,536
1927	32	621,213	. 9	206,266	41	827,479	60.3	589,233
1928		654,055		244,470	41	898,525	59.8	649,598
1929		674,597	. 9 8	244,369	• 42	918,966	61.9	688,740

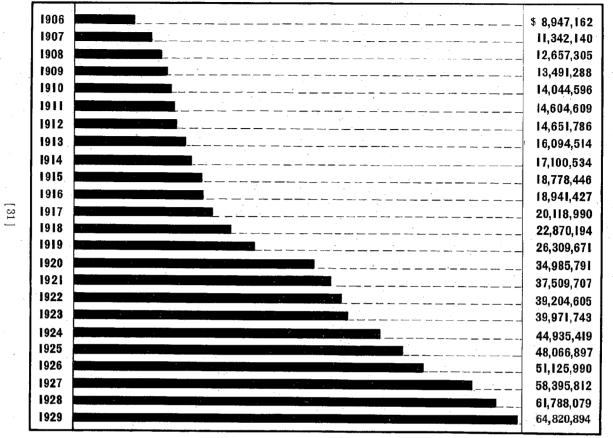
ELECTRIC DISTRIBUTION STATISTICS:

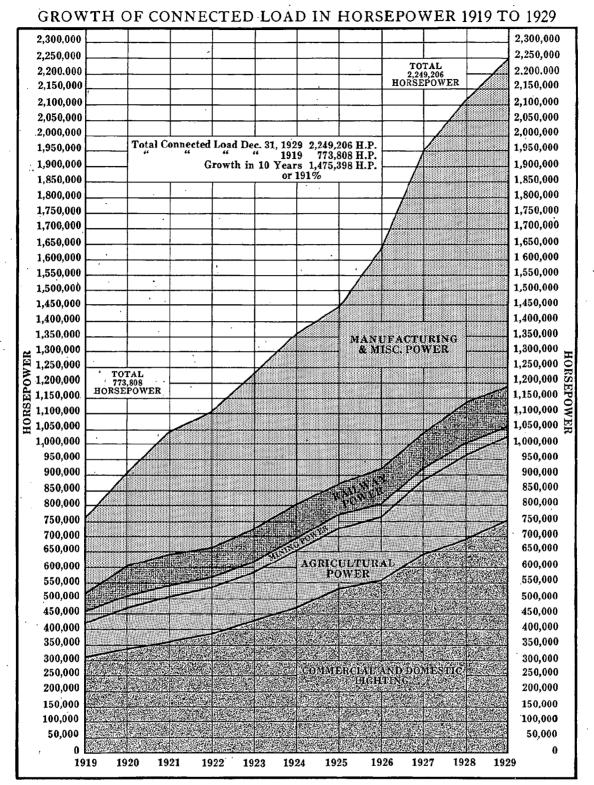
YEAR	Miles of High Tension Transmission Lines	Miles of Overhead Distribution Lines	Miles of Underground Distribution Lines	Number of Sub-stations	Total Connected Load on System in H. P.	Sales of Electric Energy (K. W. H.)
1914 1915 :	1,544 1,620 1,640 1,743 2,255 2,649 2,774 2,954 3,033 3,065	3,685 3,836 4,030 4,500 4,592 5,331 6,842 7,051 7,356 8,333 8,962	81.4 82.7 88.6 112.5 113.2 114.7 135.5 146.0 148.9 153.3 158.7	140 146 150 165 156 303 227 238 259 263 262	478,598 525,541 599,343 636,885 663,399 773,808 921,018 1,044,217 1,110,679 1,231,201 1,367,501	452,004,000 494,091,000 521,553,000 587,144,000 628,923,000 658,449,000 1,042,266,000 1,021,821,000 1,098,123,000 1,199,063,000 1,334,035,000
1925 1926 1927 1928 1929		9,498 10,304 13,609 14,038 14,425	180.6 195.5 213.6 222.0 231.7	263 266 305 299 305	1,498,878 1,641,878 1,954,817 2,129,860 2,249,206	1,351,798,000 1,514,981,000 1,657,965,000 1,765,767,000 1,948,656,000

GAS DEPARTMENT STATISTICS:

YEAR	Number of Capacity of Gas Plants Cubic Feet		Miles of Gas Mains	Number of Gas Services Laid	Cubic Feet Sold	
1914	18	43,130,000	2,516,25	183,089	7,648,251,700	
1915	17	54,220,000	2,645.62	190,354	8,325,618,900	
1916	17	54,400,000	2,779.27	196,818	8,174,225,400	
1917	18	60,744,000	2,878.60	203,553	8,537,925,100	
1918	18	72,744,000	2,903.37	207,528	9,255,960,600	
1919	20	71,594,000	2,996.34	215,077	9,792,385,600	
1920	20	71,806,000	3,005.97	224,639	10,644,650,000	
1921	19	72,470,000	3,167.92	234,953	11,483,551,100	
1922	18	73,410,000	3,339.13	251,136	12,353,849,000	
1923	18	68,010,000	3,608.01	273,338	13,674,794,300	
1924	17	83,840,000	3,833.13	294,389	15,277,477,500	
1925	16	106,148,000	4,108.26	318,769	16,200,951,000	
1926	17	112,100,000	4,468.25	349,598	17,482,206,900	
1927	20	119,096,000	4,998.52	385,812	20,214,834,600	
1928	19	118,668,000	5,227.45	397,975	21,058,368,700	
1929	18	118,768,000	5 497 91	407,570	22,041,345,500	







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