

Decision No. 65823**ORIGINAL**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of )	
PACIFIC GAS AND ELECTRIC COMPANY for )	
authority to carry out an agreement )	
dated November 7, 1962 with UNION )	Application No. 45144
CARBIDE CORPORATION for the sale of )	(Filed January 28, 1963)
firm and interruptible natural gas. )	
(Gas) )	

F. T. Searls, John C. Morrissey and Malcolm  
 MacKillop, by John C. Morrissey, for applicant.  
Norman J. Hearn, for Union Carbide Corporation,  
 interested party.  
Alfred V. Day, for the Commission staff.

OPINION AND ORDER

Public hearing in this matter was held before Examiner  
 Emerson on March 19, 1963, at San Francisco.

By this application, Pacific Gas and Electric Company  
 seeks authority to carry out the terms and conditions of an  
 agreement entered into with Union Carbide Corporation (acting by  
 and through its Division, Linde Company) on November 7, 1962,  
 relating to the supply of natural gas to Carbide's chemical  
 manufacturing plant in Sacramento County.

Carbide is building a plant adjacent to Gerber Road  
 and Cottonwood Lane, about seven miles southeasterly of the City  
 of Sacramento, for the production of high energy liquid hydrogen  
 rocket fuel to supply the National Aeronautics and Space  
 Administration projects of the United States government. In such  
 production, Carbide will use natural gas as a raw material in a  
 catalytic process for the formation of hydrogen and also for fuel  
 purposes.

Carbide's contract with NASA is on a year-to-year basis and provides that Carbide will be reimbursed for a portion of its plant expenditures if the contract is not renewed annually for six years. Certain of Carbide's operations will be of an experimental nature and may be discontinued at any time.

Pacific's investment in the facilities required to supply Carbide with natural gas is estimated to total \$217,000. Installation of approximately four miles of high-pressure gas mains will be needed, together with both firm and interruptible regulating and metering installations. The facilities have been designed specifically to meet the demands of Carbide and are intended to be devoted only to such service.

Carbide's operations will require a firm gas delivery of 17,000 cubic feet per hour; its interruptible delivery will be about 583,000 cubic feet per hour, at delivery pressures of 250 psi. For such usage, Pacific anticipates receiving annual revenues of \$74,597 for firm delivery under Schedule G-40 and \$1,686,900 for interruptible deliveries under Schedule G-53. Carbide's operations are of an uncertain and tenuous nature, however, and if halted for any reason might produce revenues of as little as the minimum charge of \$80 per month under the terms and conditions of existing interruptible gas rate Schedule G-50. In view of the large investment to be made by Pacific, such minimum revenues would be inadequate to protect it or its other ratepayers should Carbide's operations be curtailed or prove to be sharply fluctuating. Pacific and Carbide, therefore, have agreed to a contract minimum charge which is designed to return Pacific's costs of ownership during periods when Carbide may not be operating its catalytic gas reformer. The contract also provides that a commodity minimum,

bearing a constant ratio to the volume of interruptible gas used, will be added to the cost of ownership component of the contract minimum. Regular rate schedule charges under Schedule G-50 are approximately equal to the contract minimum, which amounts to \$16,045.33 at a usage of 41,645 Mcf per month (which is less than ten percent of the anticipated requirement) and the contract minimum would apply for lesser volumes. Under Schedule G-53 the regular minimum charge would be \$70,000 per month and the contract minimum, being less than such amount, would not apply.

In order to prevent damage to equipment when the supply of interruptible gas is curtailed, Carbide must utilize approximately 17 Mcf of firm gas per hour in order to maintain a proper minimum temperature in its catalytic gas reformer furnace. Because all gas, firm and interruptible, will pass through the same piping of Carbide and because it would be impracticable from a design standpoint to provide separate fuel systems, it becomes necessary to agree in advance on the amount of firm gas requirements. The agreement is for an initial estimated delivery of 17 Mcf per hour. For the purpose of determining the actual rate of delivery, it is proposed that the firm requirement be determined by measurement through a rotary displacement meter during times of interruptible gas curtailment. If a higher rate of delivery is thus determined, a billing adjustment will be made for the previous 12-month period in accordance with the terms of the contract.

Pacific's rules provide that a customer of questionable permanency may be required to pay, in advance, the installation and removal costs of facilities installed to serve him. With respect to Carbide's operations, Pacific has agreed to waive such advance payment in view of Carbide's agreement to take gas at no

less than a 50 percent load factor. The 50 percent load factor provision will not come into play if the plant is operated as contemplated, but the provision will protect Pacific and its other ratepayers should Carbide's operations fall below that full production point for which the plant is designed and intended.

One of the major expenditures in producing liquid hydrogen is the cost of natural gas which is used as a raw material. The lowest rate schedule for which Carbide qualifies is an interruptible schedule involving possible curtailment of gas. Interruptible rate schedules require that stand-by fuels be available; however, in Carbide's situation no useful purpose would be served in requiring an alternate fuel for stand-by operation during periods of curtailment because the natural gas is used as a raw material and not as a fuel for which there might be a substitute. In such respect, Carbide has agreed to assume full responsibility for the solutions of any problems resulting from curtailment of its supply of raw material.

In view of the evidence, the more important elements of which are hereinabove discussed, the Commission finds that the special circumstances and complexity of Carbide's operations warrant departure from the rates and rules of Pacific to the extent covered by the agreement between Pacific and Carbide entered into on November 7, 1962. Said agreement, of course, is at all times subject to such changes and modifications by this Commission as the Commission may, from time to time, direct in the exercise of its jurisdiction.

Pursuant to Section 532 of the Public Utilities Code and to Section X of this Commission's General Order No. 96-A,

IT IS ORDERED that Pacific Gas and Electric Company be and it is hereby authorized to carry out the terms and conditions of the written agreement with Union Carbide Corporation, entered into on November 7, 1962, as said agreement is set forth in Exhibit A attached to the application herein, provided, however, that this agreement shall not be permitted to cast a burden on the other customers of Pacific Gas and <sup>Electric</sup> Pacific Company.

*Handwritten initials*

IT IS FURTHER ORDERED that Pacific Gas and Electric Company shall file with this Commission, within thirty days after the effective date of this order, four certified copies of the agreement as executed, together with a statement of the date on which said agreement is deemed to have become effective, and shall notify the Commission in writing of the date of termination of the agreement within thirty days after said date of termination.

The effective date of this order shall be twenty days after the date hereof.

Dated at Los Angeles, California, this 7th day of MAY, 1963.

George A. Grover President  
John S. Mitchell  
Fredrick B. Holdehoff  
William W. Bennett  
Commissioners

Commissioner Everett C. McKeago, being necessarily absent, did not participate in the disposition of this proceeding.