

Decision No. 83612

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation on the Commission's own motion into the adequacy and reliability of the energy and fuel requirements and supply of the electric public utilities in the State of California.

Case No. 9581
(Filed December 18, 1973)

Investigation on the Commission's own motion into the natural gas supply and requirements of gas public utilities in the State of California.

Case No. 9642
(Filed December 18, 1973)

INTERIM OPINION

On December 18, 1973, the Commission issued its Order Instituting Investigation into the natural gas supply and requirements in the State of California. The purpose of the investigation is to ascertain facts relevant to the general problem of natural gas shortages in California in order that appropriate action may be taken to ameliorate a deteriorating gas supply situation.

Case No. 9642 was consolidated with Case No. 9581, the Commission's investigation into the adequacy and reliability of the energy and fuel requirements and supply of the electric public utilities in the State of California, and hearings began on January 28, 1974. After 26 days of hearings, Case No. 9642 was adjourned on August 19, 1974, until further notice. Prior to the conclusion of hearings on August 19, 1974, petitions for emergency interim relief were filed by Collier Carbon & Chemical Corporation (Collier), Chevron Chemical Corporation (Chevron), and Shell Oil Company (Shell). Because of the emergency situation alleged in these three petitions, the Commission will issue an interim order.

Collier Carbon and Chemical Corporation

By letter dated May 16, 1974, Collier, a wholly owned subsidiary of Union Oil Company of California, requested emergency interim relief no later than September 24, 1974, to be effective upon the date of issuance, granting Collier permission to transfer from Southern California Gas Company's (SoCal) Schedule G-53T to either Schedule G-50 or Schedule G-50T.

The alleged reason for Collier's request to transfer to Schedule G-50 was to remain in business in order to supply the California agricultural community with the ammonia necessary to insure that the agricultural community's requirements for nitrogen fertilizer would be satisfied.

Collier receives gas from SoCal under Schedule G-53T and alleges that it is faced with an imminent, permanent shutdown by October 1974 under the gas curtailment schedule of SoCal unless the relief requested is granted and that such closing would have an immensely serious adverse impact upon the agricultural community in California and the nation.

In support of its position, Collier presented testimony on June 12, 13, and 14 and on August 16 and 19, 1974. Collier stated that it has the largest nitrogen fertilizer manufacturing plant in California with a capacity of 280,000 tons of ammonia per year. This quantity represents some 28 percent of the total California production capacity.

Ammonia is the basic ingredient of nitrogen fertilizer, and natural gas is the only substance in California which is available in any quantity as feedstock and for process use in producing ammonia. The Brea plant was constructed to use and can use only natural gas for feedstock and processing. There is no other substance which can be used under the present design of the plant. To redesign an ammonia plant to use a different source of feedstock and processing would

take several years and would in effect mean constructing a new plant at a heavy cost. Aside from the time and cost problem, such redesign would be useless because there is no known substance in sufficient quantity which could act as a substitute for natural gas.

It takes 39,000 cubic feet of natural gas to produce one ton of ammonia. On a daily basis the Brea plant requires 33 million cubic feet of gas per day to operate at capacity. To keep the plant operable, Collier requires 22 million cubic feet per day.

Collier requested SoCal to transfer it from Schedule G-53T to Schedule G-50. Its position is that SoCal can, under its tariff Rule 19, make such a transfer without Commission approval.

Rule 19 of SoCal's tariff resulting from Decision No. 80430 states:

"...customers served under an interruptible schedule with usage beyond the volumetric limitations of 200,000 cubic feet per day as specified in Rule No. 30 shall not be permitted to transfer to a different schedule when such change in schedule is primarily for the purpose of reducing exposure to curtailment."

SoCal contends that this language precludes transferring a customer to a higher level of service without Commission approval notwithstanding Collier's statement that the purpose in asking for G-50 is not primarily to reduce exposure to curtailment, but to keep its Brea plant operating. SoCal states that Decision No. 80430, authorizing the filing of Rule 19, emphasized that there are cases where a transfer to obtain reduced exposure to curtailment should be allowed. In Decision No. 80430 the Commission stated:

"SoCal will be directed to eliminate such options from its tariffs in a manner that will not preclude regular interruptible customers from converting to different schedules for other reasons, including situations where the higher level of service would not be the principal reason for the change."

Shell Oil Company

Shell filed a petition for emergency interim relief from the curtailment plan of SoCal on July 29, 1974. The requested relief is to allow Shell to receive approximately 4 MMcf per day of natural gas under SoCal's curtailment Block E for the period commencing October 1, 1974 through May 31, 1975 rather than under Curtailment Block A.

Shell states that it is engaged in the production of crude oil from the Yorba Linda Field, near Yorba Linda, California, by means of a steam injection operation. This process of injecting steam to recover the viscous crude oil in the Yorba Linda Field began in April 1960 and during 1973 averaged 9,050 BDO. Approximately 8,750 BDO (97 percent) of this total production is not recoverable without the steam injection process.

The steam generation equipment used in this secondary recovery process is fueled by natural gas. To sustain oil production at the 9,000 B/D level, approximately 20,000 barrels per day of steam must be generated which requires approximately 9 MMcf per day of natural gas as fuel. Natural gas is supplied by SoCal to Shell under a combination sales-exchange agreement. Under the sales portion of the agreement Shell purchases approximately 1 MMcf per day while receiving approximately 8 MMcf per day under the exchange portion of the agreement. Gas received under the sales portion of the agreement and 3 MMcf per day of the exchange gas falls in Curtailment Block A and the remaining 5 MMcf per day of the exchange gas falls under Curtailment Block E.

Evidence filed by SoCal is that projected curtailments for Curtailment Block A on an average year basis will be in excess of 90 percent during November 1974 and March and April of 1975, and 100 percent in the months of December 1974 and January and February of 1975. On a cold year basis, SoCal projects that Curtailment Block A will receive no gas for the months of December 1974 and January, February, and March 1975, and only four-tenths of 1 percent of requirements in April 1975. No curtailment of Block E is forecasted by SoCal on an average year basis for the winter 1974-75.

Based on the curtailment projections by SoCal, Shell would receive essentially only its high priority exchange gas from the period beginning October 1, 1974 through May 31, 1975 and would be unable to sustain production at the 1973 level on the volumes of gas delivered under Curtailment Block E.

Shell states that its facilities are not capable of burning alternate fuels at this time and that utilization of natural gas has allowed it to continue maximum oil recovery while meeting governmental environmental requirements.

Shell stated that it is currently evaluating a proposal to replace its natural gas fired steam generators by larger dual fuel fired generators and to install stack gas treating facilities for these generators so as to permit the use of its own oil production as fuel for the steam injection project. The project will require an investment of about \$8 million and a period of three years to complete.

In addition, a pilot program to evaluate equipment and processes for scrubbing steam generator stack gas has already commenced. Two additional pilot programs to study waste water treating and dehydration of Yorba Linda crude for fuel oil are planned for the third quarter 1974. These programs are designed to permit operation without natural gas; however, they do not solve the problem this forthcoming winter. For the present, Shell is committed to the use of natural gas to maintain oil production at the Yorba Linda Field.

As an interim step, while the pilot programs designed to permit utilization of Yorba Linda crude are being evaluated, Shell states it has initiated engineering efforts to convert some existing facilities to permit a refined low sulfur liquid fuel to be utilized to offset the projected curtailment of natural gas this forthcoming winter. It was concluded that although an interim step is feasible for the 1975-76 winter period, it is not physically possible to install and have such facilities in operation in time to offset curtailments projected for this winter, because of the long lead times involved in obtaining the necessary equipment and the time required to secure the necessary permits from Orange County; efforts are continuing to provide the capability to utilize low sulfur liquid fuel at the earliest possible time.

On a Btu equivalent basis, Shell alleges that it recovers about five times as many Btu's from the production of crude oil at its Yorba Linda Field as are consumed by using natural gas as fuel for the steam injection process and that such energy producing operations are in the public interest since in times of an energy shortage it is important not only that existing supplies of energy be allocated but that overall supplies of energy be increased.

In this regard Shell pointed out that the Federal Power Commission, under similar circumstances, granted an independent oil producer an exemption from the curtailment plan of his pipeline supplier of natural gas. In granting such exemption from curtailment the Administrative Law Judge stated:

"It is clearly in the public interest, in the face of the current shortage of energy supply, to encourage any method of production of energy, in whatever form, that will yield twice as much, and potentially much more, than it consumes. While it is true that some of Panhandle's [Pipeline Company] customers will perhaps receive less gas by reason of the 900 Mcf per day allocated to Stallings⁶/ the public as a whole will benefit, to the extent of twice the amount of Btus made available from the oil produced thereby."
(Footnote omitted.)

Chevron Chemical Corporation

Standard Oil Company of California (Standard) and Chevron filed a petition for relief on August 12, 1974 requesting that the Commission authorize and direct Pacific Gas and Electric Company (PG&E) to provide Standard with natural gas under PG&E's Schedule G-50 at Standard's ammonia plant in Richmond, California, without application of the 24 million therm gas requirement limitation presently contained in such schedule. In its petition Standard alleged that Chevron, a wholly owned subsidiary of Standard, is engaged in the manufacture of nitrogen fertilizer at Richmond, California; that the basic ingredient of nitrogen fertilizer is ammonia which Chevron purchases from Standard; and that Standard produces ammonia in its ammonia plant in Richmond, the entire production of which is sold to Chevron.

Standard has a contract with PG&E to purchase natural gas under PG&E's Schedule G-50 for use as feedstock in its ammonia plant. The ammonia plant requires process gas to heat the reformers used in making ammonia from the natural gas feedstock. The process gas is obtained by Standard from its petroleum refining operations at its Richmond refinery.

PG&E's Schedule G-50 contains the following special conditions:

- "4. No customer or applicant, whose total requirement exceeds or is estimated to exceed 24,000,000 therms in any consecutive twelve-month period, shall be served hereunder after December 31, 1972. Customers being served on this schedule as of this date whose requirements exceed 24,000,000 therms in any consecutive twelve-month period, have the option to remain on this schedule or to transfer to another schedule; however, if the customer transfers to a schedule having lesser charges he cannot transfer back to this schedule except under the provisions of Special Condition 5.

"A customer whose total annual requirement exceeds 24,000,000 therms and is served on Schedule G-53, G-56 or G-57 as of December 31, 1972 cannot transfer to this schedule unless his requirements are reduced to meet the first provision of Special Condition 4. Further, if, after transferring to this schedule the customer's requirements again increase to exceed 24,000,000 therms, he will be required to revert to an appropriate lower priority schedule."

To help alleviate the existing shortage of nitrogen fertilizer in California, Chevron has requested Standard to increase the production of ammonia furnished to Chevron. Certain maintenance and process improvements could be made by Standard in its ammonia plant which would result in increased ammonia production but would at the same time require additional supplies of natural gas in excess of 24 million therms per year.

Unless the relief requested is granted, Chevron alleges its ability to support California's vital agricultural production will be adversely affected with current estimates by PG&E that service under its G-50 Schedule would be expected to limit Standard to 88 percent of the 24 million therm supply limit as early as 1976-1977.

Chevron also states that elimination or waiver of the 24 million therm per year limitation is required if due recognition is to be given to the concern of both California and federal governmental officials that, in the interests of agriculture and the public, as much natural gas as possible should be made available for ammonia production in order to maintain maximum levels of nitrogen fertilizer production and that two of the five fertilizer ammonia producers in northern California served by PG&E are currently receiving natural gas under Schedule G-50 without the 24 million therm per year limitation by reason of "grandfather" rights which they obtained prior to that limitation being included in the tariff (see Re Pacific Gas & Electric Company (1972) Decision No. 80878) and that unless the limitation in Schedule G-50 is eliminated or waived, Standard will suffer unfair and unreasonable discrimination.

The evidence in the record is uncontroverted that customers using natural gas as a feedstock are more susceptible to severe economic problems and consequent repercussions throughout the states economy than are so-called process gas users. This is because of the inability of these customers to convert to an alternate feedstock and the nonavailability of known alternates.

The Commission acknowledges the importance California agriculture plays in the state's economy and recognizes that the participants in the present proceeding each seek to improve or maintain its present level of gas service. However, since the petitions are for interim emergency relief, we will concern ourselves only with the specific petitions now before us.

Supply deficiencies projected for the next two to three years will require extensive curtailment of the gas distribution utilities' interruptible customers and unless additional anticipated supplies become available on schedule, what is now classified as "firm" load could soon become subject to curtailment. (Exhibit 160.)

The three parties with which we deal in this order actively compete either directly or by close corporate affiliation for natural gas, and two are producers of oil and gas. We are aware that the California gas distribution utilities since 1970 have been calling to the attention of their customers, on an ever-increasing basis, the growing shortage of gas supplies. Over the past several years we have made a number of pronouncements regarding this situation. We know that oil and gas producers have large staffs which follow national and state regulatory activities with extreme interest. We also know that the three producers herein have been fully aware for some time of the growing gas shortage as evidenced by their active international oil and gas development. It is therefore ironic that these three companies, which have been actively expounding on the decline in availability of oil and gas, are the consumers which now seek relief.

With respect to the Collier petition, the Commission staff recommends that SoCal's G-50T schedule be temporarily reopened to allow Collier to transfer from G-53 and thus be served under the same schedule as two other nitrogen fertilizer manufacturers on SoCal's system until a final decision in this proceeding is rendered.

Valley Nitrogen Producers, Inc. (Valley) opposes granting the requested relief alleging that Collier was aware of the impending shortage of natural gas and had the opportunity to switch to Schedule G-50 but for whatever reason elected to remain on Schedule G-53 and receive its basic supply from Union.

The Commission is faced with the problem of the relief sought by Collier under circumstances where only the broad public benefit of its product would warrant the granting of that relief. Certainly Collier's own action or inaction upon the information that was obviously available within its own corporate family has helped to create its present predicament. We believe that Collier, within its corporate family, can, if it so desires, exert influence in obtaining added supplies of natural gas for California, including Collier. Without additional supplies of natural gas it will be impossible for such high volume consumers to continue to receive service.

The fundamental factor in granting Collier's petition is the general public benefit to the State derived by the use of anhydrous ammonia fertilizer. The relief granted is on this basis.

With respect to Shell's petition and its gas exchange contract with respondent SoCal, it should be noted that the Commission has yet to exercise direct jurisdiction in the area of exchange agreements between the gas distributing utilities and gas producers.

As to Shell not having the capacity or ability to burn an alternate fuel for steam generation, it should be noted that such action is in direct violation of the Commission directive that, except on a specific deviation therefrom granted by the Commission, interruptible customers have alternate fuel burning capability.

Shell states that it has plans to convert the Yorba Linda steam injection facilities so as to provide the capability to burn high sulfur fuel oil but that it is a long-term project which requires the permission of the Orange County Air Pollution Control District. Such plans are commendable, but to our knowledge there has been no deviation granted by the Orange County Air Pollution Control District to allow the burning of high sulfur fuel oil.

Shell also points out that it is evaluating a proposal to replace its natural gas-fired steam generators by larger dual-fired generators and to install stack gas treating facilities so as to permit use of Shell's own oil production as fuel for the steam injection project. While this and the pilot program to evaluate the scrubbing of steam generator stack gas is also commendable, and is a move in the right direction, we believe an immediate solution to the problem would be the conversion to low sulfur fuel burning and storage equipment. Such action would meet local air pollution standards while reducing Shell's natural gas requirements.

As to the exchange volumes of gas, we suggest that Shell directly discuss that project with SoCal. As to the 1 MMcf per day sales volumes, we suggest that, to the extent possible, SoCal provide out-of-pattern service and curtailment for up to 120 days provided that Shell take immediate action to provide standby equipment and fuel within the above time period as required by the SoCal tariff as directed by this Commission. This out-of-pattern service and curtailment should have the objective of providing Shell with the same service level afforded similar priority customers over the next 12 months. The reason for this action is the contribution in benefit in energy to the United States to domestic produced fuel oil.

SoCal's tariffs require customers with this type of equipment to have alternate fuel burning capability and standby fuel storage capacity. Inasmuch as Shell has not met this requirement we do not find this long-standing requirement a sound basis for granting the relief requested. The Commission concurs in SoCal's interpretation of Decision No. 80430 and its administration of its Rule 19.

Chevron alleges that a change to PG&E's Schedule G-50 is needed in order to achieve a more protected level of service and thus sustain its present production. Chevron, presently receiving gas on PG&E's Schedule G-53, is planning to expand production from 110,000 tons of ammonia annually to upwards of 130,000 tons. This expansion is in keeping with the agricultural community's needs if it is to expand its production as requested by the United States Department of Agriculture.

While Chevron is a manufacturer of ammonia used for the production of nitrogen fertilizer, its position must be contrasted to that of petitioner Collier, in that Chevron, based on PG&E projections, will receive quantities of natural gas to maintain its present production level of 105,000 tons in 1975 while Collier will be forced to close down in October 1974. Chevron's petition will be denied. Not only did Chevron have an opportunity to transfer to Schedule G-50 as did other ammonia producers on PG&E's system, but more importantly if Chevron's petition were granted, other industrial customers can be expected to seek the same relief, and with the existing supply, some interruptible customers would receive a lower level of service. Therefore, since Chevron will continue to receive from PG&E the gas necessary to maintain 1975 production at present levels, emergency interim relief will be denied.

In granting interim relief to Collier, this Commission can only stress that the fertilizer industry take immediate steps to alleviate their reliance on natural gas as a feedstock. Such action

is not only necessary for their own survival but also necessary if this valuable energy resource is to be available to those consumers least able to switch to an alternate fuel.

Petro chemical customers on the SoCal system similarly situated as Collier will be treated in a forthcoming Commission order.

Findings and Conclusion

1. The State of California is faced with increasing shortages of natural gas.

2. It is more difficult for customers using natural gas as a feedstock to convert to an alternate fuel than so-called process gas users.

3. Agriculture is the number one industry in the State of California.

4. Projected supply deficiencies will require extensive curtailment of interruptible customers by gas distribution utilities unless anticipated additional supplies become available on schedule.

5. Natural gas is the feedstock for the manufacture of ammonia from which nitrogen fertilizers is made.

6. To date natural gas is the only feedstock in any quantity available to California ammonia producers.

7. Production of nitrogen fertilizer is essential to California food production for the benefit of the people of California and the nation.

8. The general benefit to the citizens of the State of California by the use of anhydrous ammonia requires the granting of interim relief to Collier.

9. SoCal should furnish Collier its feedstock natural gas requirements at the B Block priority for a period of up to 12 months at the level of the G-50T rate schedule.

10. The Commission has not yet exercised direct jurisdiction in the area of exchange agreements between gas distributing utilities and gas producers.

11. Interruptible gas customers are required to have alternate fuel burning capability.

12. Out-of-pattern service and curtailment for up to 120 days by SoCal to Shell should be sufficient time for Shell to acquire standby equipment for its Yorba Linda field.

13. Chevron will receive from PG&E a sufficient quantity of natural gas in 1975 to maintain production of ammonia at its present level. Interim emergency relief will be denied.

INTERIM ORDER

IT IS ORDERED that:

1. Southern California Gas Company shall furnish Collier Carbon and Chemical Corporation its feedstock natural gas requirements at the B Block priority for a period of up to twelve months at the level of the G-50T rate schedule.

2. Southern California Gas Company shall supply Shell Oil Company natural gas under its out-of-pattern curtailment program to the extent service to higher priority customers is not endangered.


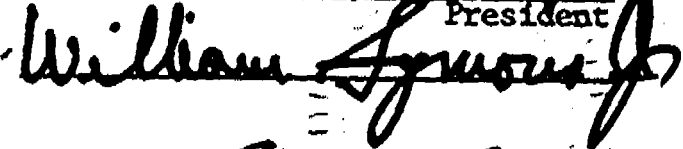
3. Deliveries of gas to Shell Oil Company during the ninety-day interim period shall be made to the extent that volumes to which Shell Oil Company would not otherwise be entitled shall be subject to out-of-pattern curtailment of equal volumes subsequent to the ninety-day period.

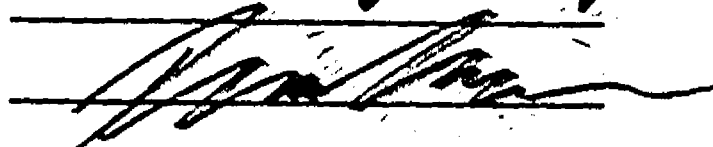
The effective date of this order is the date hereof.

Dated at San Francisco, California, this 16th
day of OCTOBER, 1974.

I abstain

 Commissioner


President




Commissioners

Commissioner J. P. Vukasin, Jr., being necessarily absent, did not participate in the disposition of this proceeding.