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Decision 92-11-016 November 6, 1992

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking into natural gas procurement and reliability issues.	R.88-08-018 (Filed August 10, 1988)
Order Instituting Investigation on the Commission's own motion into interstate natural gas pipeline supply and capacity available to California.	I.88-12-027 (Filed December 19, 1988)

OPINION

This decision addresses the issue of whether Pacific Gas and Electric Company (PG&E) should be ordered to expand its intrastate pipeline capacity on Line 300, which receives gas from the Southwest, or to expand its storage capacity.

We direct PG&E to hold an open season for a Line 300 expansion and an open season for storage capacity for noncore customers and other shippers. We also direct PG&E to report the results of its open season within 15 days after the associated bidding period is over.

I. Background

By Assigned Commissioner Ruling dated February 13, 1992, the Commission began the process of considering whether PG&E should be ordered to expand its intrastate pipeline capacity on Line 300 and/or to expand its storage capacity. Subsequently, we issued Decision (D.) 92-03-036, __ Cal.P.U.C.2d __ (1992), which consolidated Investigation (I.) 88-12-027 with Rulemaking (R.) 88-08-018 for the purpose of considering these matters. We directed this review in light of our concern that additional supply flexibility might be required in order to optimize use of the state's natural gas infrastructure.

At a prehearing conference held on February 28, 1992, the assigned administrative law judge defined the issues to be heard. Generally, the hearings reviewed the costs and benefits of expanding storage and/or Line 300 capacity under various scenarios, and the time needed for construction or other related expansion activities. These issues were to be considered in light of system reliability, operational flexibility, effects on gas prices, and competition. Many issues were reviewed in the context of the PG&E/Pacific Gas Transmission (PGT) interstate expansion project, which is under construction and which will deliver gas from Canada. The scope of this proceeding, however, is limited to determining whether additional intrastate facilities are necessary in order to increase gas purchases from the Southwest.

Numerous parties participated in this proceeding, including representatives of utilities, utility customers, interstate pipeline companies, gas marketers, and the California Energy Commission (CEC). Hearings in this matter were held between June 8 and June 25, 1992, and the matter was submitted August 11, 1992.

II. Current Policy Regarding Gas Pipeline Construction

The purpose of this proceeding is to consider the viability of expanding Line 300 and/or storage capacity. We do not reconsider the Commission's policy regarding new pipeline construction. A review of existing policy, however, is useful in guiding our consideration of these pending matters.

Criteria for evaluating construction of additional pipeline capacity were established in D.90-02-016, 35 Cal.P.U.C.2d 196 (1990). That decision adopted a "market-based" policy under which pipeline companies would assess market demand, make independent decisions regarding the financial viability of a project, and assume risk for recovering their investments.

D.90-02-016 applied to expansions of the interstate pipeline system. Nevertheless, we have applied this policy to intrastate expansions insofar as the market and financial risks of a project are with the utility's shareholders. <u>See</u>, <u>e.g.</u>, <u>Pacific Gas and Electric Company</u>, D.90-12-119, 39 Cal.P.U.C.2d 69 (1990). PG&E in fact argues that the Commission's market-based policy for the interstate system has promoted the proper development of intrastate capacity. We are not as confident as PG&E that such is the case here.

Some circumstances may require our intervention in order to promote an efficient intrastate transportation system. Several factors may impede the development of an optimal intrastate system if we rely solely on a competitive market. In this particular case, PG&E already owns and operates a partially depreciated pipeline to the Southwest, namely Line 300. We cannot assume automatically that third parties can compete with this pipeline. The costs of expanding the pipeline are likely to be less than the cost and risk associated with constructing a new pipeline. The fact that Line 300 is partially depreciated means that associated rates and costs are likely to be lower than those associated with a new investment. Moreover, PG&E may qualify for regulatory protections that would not be available to unregulated projects. At the very least, the financial market is likely to expect PG&E to have regulatory protections not available to others, a fact which might keep PG&E's

financing costs low compared to those faced by unregulated investors. Because of these factors, investments by third parties in intrastate pipeline projects may not occur, and economically efficient investments may not be undertaken.

Moreover, PG&E may not always have the incentives to develop an optimal intrastate pipeline system. PG&E and its affiliate, PGT, have invested in an enormous pipeline project which would transport gas from Canada, a project we refer to herein as the PG&E/PGT expansion. PG&E's shareholders have an interest in protecting the PG&E/PGT expansion from competition, an interest which may color PG&E's judgments regarding whether to invest in competing facilities.

If circumstances such as these are present, regulatory oversight may be the only way to assure that gas customers receive high quality services and service options, and to promote competition in gas commodity markets. We adopted a market-based policy in providing conditional approval of the intrastate portion of the PG&E/PGT expansion in D.90-12-119. While we still believe that a utility's independent decision to expand its system imposes financial risk on the utility, we also believe that we cannot abrogate our duty to assure that the intrastate pipeline system is developed in ways which best serve the public. We initiated this investigation to determine whether an expansion of Line 300 or storage is needed but is not contemplated due to circumstances which might compromise the public interest.

III. Issues Concerning the Expansion of Line 300

Generally, the parties presented three views regarding the wisdom of expanding Line 300. PG&E, the CEC, Alberta Petroleum Marketing Commission and PGT believe there is no demand for additional capacity on Line 300, partly due to recent additions to the intrastate system, among them, the PG&E/PGT expansion. The Commission's Division of Ratepayer Advocates (DRA) and Toward Utility Rate Normalization (TURN) support an expansion of Line 300 but only if construction of the PG&E/PGT expansion is abandoned. The Southwest pipeline companies (El Paso Natural Gas Company (El Paso), Mojave Pipeline Company (Mojave), Transwestern Pipeline Company (Transwestern) and Kern River), Altamont Gas Transmission Company, the State of New Mexico and Indicated Producers strongly support an expansion.

Our assessment of Line 300 expansion is addressed by considering several broad questions:

Is there demand for an expansion of Line 300?

What are the costs of expanding Line 300?

What are the potential benefits of expanding Line 300?

Which classes of PG&E's ratepayers would benefit from an expansion to Line 300?

A. Is there Demand for an Expansion of Line 300?

In order for an expansion of Line 300 to be cost-effective, there must be demand for the additional capacity. Currently, the capacity of the Line is about 1,140 million cubic feet per day (mmcf/d), matching the interstate capacity held by PG&E over the El Paso system. PG&E has recently committed to an additional 200 mmcf/d over the Transwestern pipeline expansion so that it may receive more gas from the San Juan Basin. This additional interstate capacity creates a mismatch between interstate capacity and intrastate (or "take away") capacity.

Even with this mismatch, however, it is unclear whether there is a "bottleneck" on the system, that is, demand for gas from the Southwest which exceeds capacity on the existing system. PG&E argues that demand for its current "customer-identified gas" (CIG) program demonstrates a lack in demand for additional capacity over

Line 300. During the open season[1] for that program in mid-1991, customers did not bid for all available capacity from the Southwest. As several parties point out, however, response to the CIG program may not be a good indicator of demand for Line 300 capacity. The CIG program was available only to customers, not other shippers. Access to the most desirable producing basins--San Juan and the Rocky Mountain region--was limited at the time PG&E offered its CIG service in 1991.

CEC observes that Kern River and Mojave have recently completed intrastate extensions of their interstate systems and believes the extensions have absorbed any demand which might have otherwise been served by Line 300. This statement is only true for that portion of the PG&E service territory lying east and south of the Wheeler Ridge compressor facility. For that portion of the PG&E service territory lying north and west of the Wheeler Ridge facility (by far the dominant portion of PG&E's load), the Kern River and Mojave intrastate extensions are not substitutes for Line 300, but are rather complements. The CEC expects demand for service over Line 300 to further decrease with the completion of the PG&E/PGT expansion project. These system additions, according to the CEC's analysis, will eliminate need for additional capacity over Line 300 until the year 2012.

Other evidence suggests, however, that there may be demand for expanded intrastate capacity to move gas from the Southwest. Significantly, Mojave announced, at the end of the hearings, that it would conduct an open season to secure possible commitments for an expansion of interstate pipeline that would move gas from the Southwest to Northern California. The record does not allow us to determine the demand for this pipeline or how it might affect demand

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[1] An open season is a period during which the utility solicits bids from customers for a service.

for an expansion of Line 300. Nevertheless, the proposed pipeline is an indication that, contrary to PG&E's assertions, Line 300 may not provide adequate gas transportation from the Southwest.In sum, the extent of demand for Line 300 is unclear.

B. What are the Costs of Expanding Line 300?

PG&E estimated the direct costs of expanding Line 300 in 100 mmcf/d increments as follows:

100 mmcf/d	$ 53.4 million
200 mmcf/d	107.1 million
300 mmcf/d	145.1 million
400 mmcf/d	176.3 million
500 mmcf/d	262.7 million
600 mmcf/d	289.2 million

These figures assume the PG&E/PGT expansion project will be completed. If it is not, estimates for expanding Line 300 are substantially higher. PG&E explains that the presence of the PG&E/PGT expansion project creates "synergies" which obviate the need for certain facilities if Line 300 is expanded.[2]

PG&E's analysis assumes that the first 200 mmcf/d of additional gas supplies would be received at Topock (the California border) from the El Paso and Transwestern systems and that the second 200 mmcf/d would be received from the Kern River-Mojave line. Additional supplies, if the expansion were greater than 400 mmcf/d, would come from Topock.

Transwestern states it can provide 200 mmcf/d interconnection at Topock and that an additional 200 mmcf/d interconnection would cost $575,000)

[2] By comparison, the combined interstate and intrastate portions of the PG&E/PGT expansion will cost approximately $2.4 billion for an additional 755 mmcf/d of capacity. The intrastate portion of the project is estimated to cost $840 million or $1.11 mmcf/d. In contrast, a 400 mmcf/d expansion of Line 300 would cost $0.44 mmcf/d (or $0.626 mmcf/d if the PG&E/PGT expansion were not constructed.)

No parties provided independent cost analyses.

C. What are the Potential Benefits of Expanding Line 300?

Some parties believe expanding Line 300 offers many potential benefits, among them increased capability to take advantage of low priced gas in the Southwest, the promotion of interregional competition, and more reliable service. With improved reliability on the intrastate system, the value of interstate capacity, including that held by PG&E, may increase.

The record in this proceeding does not permit us to assess the effects of expanding Line 300 on gas markets. Using CEC's exhibits, PG&E argues that Canadian natural gas is expected to remain the lowest cost supply available to California. However, PG&E's own documents suggest that San Juan gas--which can be transported over Line 300--is expected to be less expensive than Canadian gas moved over the PG&E/PGT expansion project.

To be sure, Canadian prices to California customers are currently competitive with other supply sources. The evidence adduced in other phases of this proceeding, however, suggests that, because of "netback pricing," those prices are well above the market price paid by other customers who purchase Canadian gas supplies. More critical to the matter before us, those prices are subject to change. The National Energy Board of Canada recently demonstrated its willingness to interfere with competitive pricing of Canadian gas by blocking exports of short-term supplies into California. This order effectively prohibits any gas purchases except those which are under long-term contracts to PG&E's affiliate, Alberta and Southern Gas Company, Ltd. (A&S).

The effects of an expansion on the value of existing interstate capacity are also uncertain. PG&E argues the value of capacity would not be affected by an expansion of Line 300 because the expansion would be completed in 1996, at approximately the same time PG&E is free to relinquish capacity on the El Paso line. While this opportunity to relinquish capacity in 1996 would relieve PG&E ratepayers of liability for that capacity, a Line 300 expansion may increase the value of interstate capacity to noncore customers and other shippers who do not use PG&E's capacity to transport gas.

We also note that Line 300 has operated at or near capacity for most of the year. It therefore provides little back-up capacity in case Canadian supplies are curtailed or become uneconomic. Either of these contingencies may make an expansion of Line 300 an economic addition to PG&E's intrastate system. In fact, the expansion may insure against anticompetitive pricing of Canadian supplies.

Finally, in its brief, TURN points out that an expansion of Line 300 may deter construction of the Mojave line, a line which would compete with Line 300 and promote bypass of PG&E's system. The record in this proceeding does not permit us to determine whether additional Line 300 capacity would provide a substitute for Mojave's recently announced expansion and thereby prevent uneconomic bypass. TURN's observation, however, merits consideration.

IV. Issues Concerning Expansion of Storage Capacity on PG&E's System

Generally, storage provides a hedge against supply shortfalls during peak demand periods, allows the utilities to purchase inexpensive gas during off-peak periods, and provides "load balancing," whereby system supplies are balanced with system demand on a daily basis notwithstanding actual daily gas deliveries. Expanding storage may also reduce the amount of interstate capacity a utility must hold to serve its customers.

The issue of storage expansion received less attention than that of the Line 300 expansion. PG&E believes it would be unwise to upgrade its storage capacity. It finds that a 30 billion cubic feet (Bcf) expansion would be "optimal" assuming that gas prices continue to vary according to season. It believes, however, that this expansion would not be cost-effective because gas prices, in PG&E's view, will no longer vary according to season. PG&E provides no evidence to support its view that seasonal price differentials are a thing of the past. Economic theory suggests that such differentials will be retained, even in the futures markets, as long as demand varies according to season. Currently reported prices for gas in the futures market support this theory.

DRA advises against requiring PG&E to expand its storage at this time but argues that such expansion would have been a very cost-effective improvement to system reliability and flexibility prior to construction of the PGT/PG&E expansion project. PG&E's planning documents, issued just before the initial construction of the PG&E/PGT expansion project, provide a similar analysis.

According to the record developed in this proceeding, PG&E does not have enough storage capacity to offer storage services to noncore customers after the introduction of capacity brokering. Customers in PG&E's territory currently do not have other storage options. McFarland Energy, Inc. (McFarland) does, however, state its intent to develop storage near Line 300 at the Ten Section field and to offer storage services to the public. This major storage project, to be underwritten by private interests, suggests a near-term demand for storage services by noncore customers and those who would serve gas customers. The record does not allow us to compare the costs of the McFarland project with the costs of a PG&E expansion. Therefore, we do not know if an expansion of PG&E's storage would be competitive with the service McFarland may eventually offer.

V. The Optimal Combination of Additional Facilities on PG&E's System

On the basis of PG&E's quantitative analysis, the following table provides cost-benefit ratios for various storage and Line 300 expansion scenarios, assuming construction of the PG&E/PGT expansion:

		STORAGE CYCLE EXPANSION (Bcf)				
		0	10	20	30	40
LINE 300 EXPANSION (MMcf/D)	0	1.34	1.39	1.52	1.58	1.44
	100	1.33	N/A	1.44	1.49	1.39
	200	1.13	N/A	1.21	1.25	1.19
	300	1.06				
	400	1.02	(values not available for these combinations)			
	500	0.87				
	600	0.85				

Note: The "0/0" scenario in the upper left-hand corner represents the case where the PG&E/PGT expansion is completed, but neither Line 300 nor storage is expanded.

As the table shows, all the zero storage options listed up to a 400 mmcf/d of Line 300 capacity have a benefit-cost ratio which exceeds one. Accordingly, all of these options are cost-effective additions to the system over the long run. There are also several other storage and/or Line 300 expansion scenarios that are more cost-effective options than constructing the PG&E/PGT expansion project only.

A. Which of PG&E's Ratepayers Would Benefit from an Expansion of Line 300 or Storage?

We found in D.90-02-016 that all customers may benefit from excess capacity because of enhanced reliability and competition. This discussion focused on interstate capacity. Expanding PG&E's intrastate capacity would not improve the core's access to supply basins because those supply basins are primarily outside the state and therefore served by the interstate system.

The primary benefit of an expanded intrastate network would be to improve PG&E's ability to take gas from the interstate system. Customers would benefit from excess capacity to the extent it increases reliability. By definition, the core requires the most reliable service. Core rates have been designed under the assumption that the core would receive the most reliable service. The intrastate pipeline system is more than adequate to meet core demands, as we established in other decisions in this docket. If Line 300 or storage is expanded to improve reliability and flexibility, those improvements will accrue to noncore customers who would otherwise be the first to be curtailed in the event of excess demand or a system emergency.

The expansion of Line 300 or storage would not benefit core ratepayers. If either is expanded, we would not allocate associated costs to the core absent a demonstration that the core would benefit from the expansion.

V. Conclusion

This proceeding provides ample evidence that the market-based policy we adopted for pipeline construction is not necessarily applicable to intrastate pipeline construction under existing circumstances. We are concerned that PG&E's decision to build the PGT/PG&E expansion, rather than expanding storage or Line 300, may have been motivated more by its corporate structure and its regulatory status than an analysis of the relative merits of various system upgrades.

The PGT/PG&E expansion will cost substantially more than the cost of expanding Line 300. PG&E provided no evidence in this proceeding that the additional capital costs of the project will be offset by lower prices for Canadian gas. Nor does PG&E explain to our satisfaction why it chose to expand capacity to the north even though other options were less expensive and even though its own planning documents favored additional storage capacity as the most cost-effective method of increasing operational flexibility and system reliability.

Moreover, PG&E undertook the PG&E/PGT expansion apparently assuming it would receive regulatory protections not available to non-utility investors. PG&E has asked the Commission in Application (A.) 92-05-048 to permit it, and by implication its captive ratepayers, to provide loan guarantees to PGT for the expansion project. In A.89-09-003, it has asked the Commission to require PG&E customers who do not use the PG&E/PGT expansion to assume risk by seeking a rate design for that project which would "roll in" the costs of the expansion into the transportation rates applied to other transportation services. These protections are not available to investors outside our jurisdiction and are likely to substantially reduce the risk associated with the PG&E/PGT expansion.

This proceeding is neither a reasonableness review nor a review of the PG&E/PGT expansion project. We have considered issues related to the PG&E/PGT expansion project. We have done so in order to get a more-or-less comprehensive picture of PG&E's intrastate system. In the process, we have learned the potential pitfalls associated with considering utility construction plans in isolation, especially where the utility has financial interests which fall outside our jurisdiction or which may conflict with the interests of utility customers.

Where a regulatory and corporate structure exists that might bias an efficient outcome, it is our duty to promote a regulatory environment which would emulate the pricing and service protections the market would provide, and which would promote the development of an efficient infrastructure. In this case, we find conflicting evidence regarding the optimal configuration of PG&E's intrastate transportation and storage system. On the one hand, PG&E's own analysis suggests certain system expansions would provide considerable net benefits to shippers. On the other, we are unsure about the actual demand for those expansions.

PG&E did not offer shippers a choice between an expansion to Canada and an expansion to the Southwest. It offered only one option, that being the PG&E/PGT expansion. Nor has it conducted any type of survey to determine potential interest in expanding Line 300 and storage.

Several parties to this proceeding, including potential shippers, argue that there is demand for an expansion of Line 300. To determine the extent of that demand, most recommend that the Commission require PG&E to conduct an open season which would provide potential shippers an opportunity to bid for new capacity. PG&E thinks such an open season is not needed, but does not otherwise object to this proposal.

An open season in this circumstance is a good idea. The results of the open season will provide information from the market, rather than by way of speculation, regarding whether large shippers would be willing to undertake long-term financial commitments to additional capacity. It carries little risk and little cost.

We will direct PG&E to hold an open season for Line 300 services and an open season for noncore storage services. It shall provide notices to all prospective noncore shippers and storage customers. Its notices shall seek bids for storage services and for transportation service over Line 300 during both on-peak and off-peak periods. PG&E's notices shall provide enough information to permit customers to make informed choices about service options.

We will direct PG&E to present its notice to the Commission Advisory and Compliance Division (CACD) for review within 30 days of the effective date of this order and to begin the open seasons within 50 days of the effective date of this order. We have modified the ALJ's proposed decision to extended from 10 to 30 days the time PG&E has to present its open season notice to CACD. We have done this in the expectation that the additional time will give PG&E and market participants the opportunity through workshops and informal discussions to fashion an open season that is responsive to the needs of the market. From our perspective it would be useful if the open season can be structured to provide all parties, including the Commission, information on the demand and value for firm capacity on the existing Line 300 as part of the open season for additional capacity over Line 300.

Following the open seasons, PG&E shall file the results of the open seasons, and an analysis of those results, in this proceeding. Parties will have an opportunity to comment on the filing. We will determine at that point whether to take further action in this proceeding.

Findings of Fact

1. The Commission initiated this proceeding in order to consider whether expansions of PG&E's Line 300 or PG&E's storage facilities would provide net benefits from the standpoint of system reliability, flexibility, and competitiveness.

2. D.90-02-016 sets forth Commission policy with regard to expansions of the interstate gas pipeline system. That decision established a market-based policy whereby investors would determine

project viability and assume financial responsibility for construction costs and risks.

3. Relying on a market-based policy to promote the optimal development of PG&E's intrastate gas facilities may not always result in the most efficient use or development of those facilities.

4. The demand by shippers for additional capacity on Line 300 is unclear.

5. Mojave has initiated an open season for a pipeline expansion which may compete with Line 300.

6. Recent expansions of intrastate capacity by Mojave and Kern River compete with Line 300.

7. The effect of an expansion of Line 300 on gas prices and the value of interstate capacity is not clear from the record in this proceeding.

8. The demand for noncore storage services is unclear.

9. The evidence does not demonstrate that seasonal gas price differentials will be eliminated in the foreseeable future.

10. McFarland has announced its intention to develop gas storage facilities in PG&E's territory.

11. PG&E's analysis demonstrates that expanding Line 300 and expanding storage capability would provide net benefits.

12. Core customers would not benefit from expansions of Line 300 or storage facilities.

13. An open season would provide information regarding the market demand for expansions of Line 300 and storage capacity.

<u>Conclusions of Law</u>

1. PG&E should be ordered to conduct, within 50 days of the effective date of this order, an open season for additional capacity over Line 300 and an open season for storage services.

2. PG&E should be ordered to submit to CACD, within 30 days of the effective date of this decision, notices to customers which

would solicit bids for Line 300 capacity and storage services pursuant to its open seasons.

3. PG&E should be ordered to file, within 15 days of the close of its open season, a report which includes the results of its open seasons and an analysis of the results of its open seasons.

4. Other parties should be permitted to file comments on the results of PG&E's open seasons.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company (PG&E) shall, within 50 days of the effective date of this order, conduct an open season for additional capacity over Line 300 and an open season for noncore storage services.

2. PG&E shall, within 30 days of the effective date of this order, submit to the Commission Advisory and Compliance Division a notice to customers which would solicit bids for Line 300 capacity and a notice to customers which would solicit bids for noncore storage services, pursuant to this decision.

3. Within 15 days of the close of its open seasons, PG&E shall file a report with the Docket Office and serve the report on all parties to this proceeding. The report shall provide the results of PG&E's open seasons and an analysis of those results.

4. Parties who wish to comment on PG&E's report, filed pursuant to Ordering Paragraph 3, shall file comments with the Docket Office within 20 days of the date PG&E's report is filed.

This order is effective today.

Dated November 6, 1992, at San Francisco, California.

DANIEL Wm. FESSLER
President
JOHN B. OHANIAN
PATRICIA M. ECKERT
NORMAN D. SHUMWAY
Commissioners

I CERTIFY THAT THIS DECISION
WAS APPROVED BY THE ABOVE
COMMISSIONERS TODAY

Neal J. Shulman

NEAL J. SHULMAN, Executive Director

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