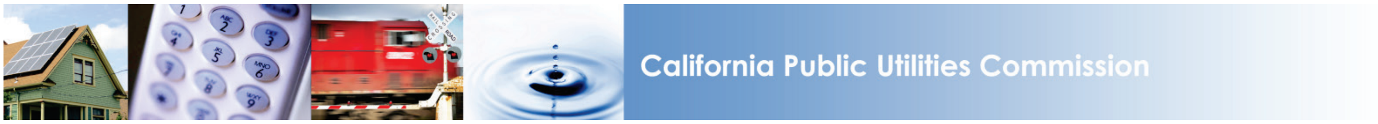

California's Natural Gas System:

Regulatory Response to Market Changes

California Public Utilities Commission

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Forward by Policy & Planning Division Director Marzia Zafar

This paper provides a brief history of how the California natural gas market transformed over a thirty year period. It went from strictly monopoly supply to a fully competitive retail market where customers have choices and can make their own decisions. This transformation occurred because customers demanded it, and the regulator – the California Public Utilities Commission (CPUC) helped facilitate the transition via the actions it took within the proceedings before it. Some were applications filed by customers and market participants. Others were Commission-initiated investigations and rulemakings.

The white paper's focus is only on market structural changes and not recent developments on increased pipeline safety and reliability at both the federal and state levels. Those subjects are continuing to be addressed either through legislation and/or current proceedings.

Looking back at this history we should take note that the regulator played its role as the facilitator or referee, while the customers demanded change, and the market created the change. True, some of the Commission's actions were required in response to actions taken by the Federal Energy Regulatory Commission. But that only proves the point. The CPUC, the industry participants, and California gas customers all played their roles and, at the end, the natural gas market in California is efficiently and effectively functioning. Most large customers purchase their own supplies. They also contract for the necessary space in the interstate pipelines and in the California utility pipelines for its delivery. All the while, core customers, including residential customers, receive fully regulated service at just and reasonable rates under published tariffs approved by the Commission.

California is in a similar situation again, but this time with the changes taking place in the areas of water and electricity markets.

An increasing number of electric customers are no longer solely reliant upon the electric distribution grid for their electricity use. And this is leading to a situation that may be more and more difficult for the electric utilities and for the captive customers that do not have the ability, or the desire to produce their own electric supplies. Customers will continue to push the boundaries farther and at a much faster pace. Electric utilities are actively working to redefine their business models, and some are looking to the regulatory body to help them to move to the next utility model.

Today, partly because of California's continuing severe drought conditions, which are continuing into their fourth year, and partly because of technological developments that allow water to be used ever more efficiently, regulated water companies are facing steep declines in usage, resulting in revenue declines that are not accompanied by declines in total costs. As the quantities of water passing through customers' meters is declining, the cost, on a per-unit-of-water basis, are rising. We may face restrictions in future consumption. At the same time, Californians are beginning to invest in recycling projects and other ways to assure safe and reliable future supplies. It is possible that this industry, too, may be facing a potential restructuring of the relationship between customers and suppliers.

In the case of gas service, effective economic regulation resulted from the evolution of the California natural gas market with the regulators acting as the facilitator of change. We need to be prepared once again to act as the same type of facilitator in the electric and water service markets by facilitating the needs of the customers through the proceedings that appear before the Commission.

Introduction

This paper presents in very short review a series of over 20 decisions of the California Public Utilities Commission (CPUC or the Commission) that accompanied an entire restructuring, one might even say a rebirth, of natural gas production, transportation, local distribution, and consumption, in the United States. Prior to the 1980s, gas was price controlled at the wellhead, and the entire transportation and distribution process was fully price regulated. Commissions, including the CPUC, supervised the distribution of gas and set prices to customers, usually referred to as "ratepayers." In the 1980s, the gas industry began to change, and regulated gas distribution companies began to see changes in the markets they served. What had been thought of as a declining industry with decreasing supplies and a prospect of shortages in the future began to see new supplies and competition at the national level. Gas distribution companies in California, long subject to regulation by the CPUC, began to find that their largest customers could not be counted on to purchase gas that had come through the utilities' supply corridors – that is, utility-owned gas supplied at regulated prices. Those customers wished to purchase their own gas at market rates, and they were willing to forego service from the regulated local distribution companies in order to avoid the costs associated with regulated service. The CPUC responded by allowing the gas companies to transport customer-owned gas through the utilities' pipelines, preserving a high level of pipeline usage and thereby protecting smaller gas consumers, including residential customers, from the higher costs that would have been associated with supporting the full cost of operating pipelines at lower capacity factors. That 1985 decision was necessary as the Commission recognized that the prevailing market forces in the gas industry had made gas transportation an attractive option of certain gas consumers. As the market was changing, the California utilities needed to respond.

For California's gas utilities to be able to make changes in their own business practices, the California Public Utilities Commission needed to respond as well. Thus began a process that brought forth – over the course of two decades – a series of changes in the utilities and in their regulation. The Commission did not initiate these changes, at least not at first. And they were not entirely welcomed by all parties. Some of the decisions discussed in this paper were affirmations of settlements of parties. But most of the settlements were not all-party settlements, and many of the settlements were affirmed with modifications. All of the decisions are filled with discussions of the positions of parties and recognition that changes were necessary, and yet some parties opposed each proposed decision.

Background

In the 1970s, the utility companies that composed California's retail gas service industry were organized as fully vertically integrated systems, controlling not only the local distribution system and the larger gas transmission system, but also all of the gas flowing through it. Retail gas consumers received fully regulated monopoly gas service. The customers' choices were to take full, bundled service as a customer of a regulated gas utility or not to take it. By the late 1970s, natural gas supplies were short in California and in the Nation. President Carter urged conservation in its use and worked to restrict its availability for non-essential uses. He referred to our need to conserve as "The Moral Equivalent of War" in a famous speech. Over time, the world changed, and the traditional regulated gas industry faced the need to change, too. As the regulated gas utility companies of California faced changes in their supplies and in the needs of their customers, they needed to change. This paper provides a short review of the actions taken by the California Public Utilities Commission in response to the needs of customers, facilitating a substantial overhaul of the business model and practices of the regulated gas firms of California.

The CPUC's web site states:

> Prior to the late 1980's, California's regulated utilities provided virtually all natural gas services to natural gas customers. Since then, the PUC has gradually restructured the natural gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to continue receiving utility-provided services. The option to purchase natural gas from independent suppliers, as noted above, is one of the results of this restructuring process.
>
> Another option resulting from the natural gas industry's restructuring process occurred in 1993, when the PUC removed the utilities' storage service responsibility for noncore customers, along with the cost of this storage service from noncore customers' rates. In 1993, the PUC also adopted specific storage reservation levels for the utilities' core customers.
>
> In a 1997 decision, the PUC adopted PG&E's "Gas Accord," which unbundled backbone transmission costs from noncore transportation rates, and gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone pipeline system. The Gas Accord also required PG&E to set aside a certain amount of pipeline capacity in order to deliver natural gas to its core customers. Subsequent PUC decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services.
>
> In a December 2006 decision, the PUC adopted a similar gas transmission framework for southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in October 2008. Under the FAR system, customers may obtain firm receipt point capacity rights for delivery on the integrated SoCalGas/SDG&E gas transmission system.[1]

What was the process by which these actions took place? How did the CPUC "gradually restructure the natural gas industry to give customers more options while assuring regulatory protections for those

[1] California Public Utilities Web Site, "Natural Gas and California," http://www.cpuc.ca.gov/PUC/energy/Gas/natgasandCA.htm.

customers that wish to continue receiving utility-provided services"? This paper presents a very short of the CPUC decisions along the way.

A Review of Principal CPUC Decisions

1985 – Long-Term Transportation of Customer-Owned Gas

Decision D.85-12-102[2] required the gas utilities to file tariffs holding themselves out to provide long-term transportation of customer-owned gas. The Decision states that nearly all of the parties supported transportation, differing sharply on terms and conditions. And the Commission "acknowledge[d] that the prevailing market forces in the gas industry have made gas transportation an attractive option of certain gas consumers for at least the past two years."[3] The Decision refers to changes at the federal level, especially the Federal Energy Regulatory Commission (FERC) Final Rule on gas transportation.[4] FERC enacted a voluntary, nondiscriminatory blanket transportation certificate available to all interstate pipelines. According the CPUC's interpretation, the rule "ensures that the interstate transportation market will continue to expand, as end-users will now be able to participate in the transportation markets to a far greater extent than had previously been the case."[5] This decision reflected a recognition that the world was changing, and it was likely that developments at the federal level might allow some natural gas customers to avoid purchasing gas from the California-jurisdictional gas utilities.

> One other feature of note in the final rule is the adoption of the proposed expedition certificate procedure. As the record in this case dramatically reflects, the streamlined certification procedures have enormous implications for California. Several proposals are now pending before the FERC for authority to construct a FERC-jurisdictional pipeline from out of the state into the Bakersfield area, in order to serve the emerging [enhanced oil recovery] market, apparently the largest undeveloped gas market in the United States. Entry of such a pipeline is opposed by PG&E and SoCal, who claim to be able to serve these prospective customers from their existing facilities. The customers themselves have indicated their willingness to be served by whichever delivery system best meets their needs.[6]

Not all parties agreed that the future seen by the Commission was a desirable future. According to the Decision, PG&E argued that transportation would erode its market power, impeding its ability to bargain effectively for gas supplies. PG&E further argued that allowing the utilities to maintain the integrity of their sales markets would preserve the Commission's authority over supply planning and would be most consistent with assuring long-term reliability of supply. TURN argued that transportation inevitably would harm the utilities' captive customers by undermining the retail rate design. But the Decision states that the Commission was persuaded otherwise and that an intrastate transportation program

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[2] CPUC Decision D.85-12-102, 1985 Cal. PUC Lexis 1100. All of the CPUC decisions cited in this paper are given their Lexis Citation numbers for ease of on-line research. The page numbers referred to are the Lexis bracket pages.
[3] Decision 85-12-102, *3-4.
[4] FERC Final Rule, Docket RM85-1-000, October 9, 1985.
[5] Decision 85-12-102, *5.
[6] Decision D.85-12-102, *5-6.

could be designed to which the non-anticipating core customer could be at least indifferent and which "should be, on the whole, of positive benefit to all gas users in California."[7]

1986 – Framework for Gas Industry Restructuring and Short-Term Transportation of Customer-Owned Gas

Decision D.86-03-057[8] initiated the framework for gas industry restructuring. It stated that it would shortly begin a Commission Investigation into Proposed Refinements for a New Regulatory Framework for Gas Utilities, eventually issued in June as R.86-06-006. It also ordered short-term transportation tariffs for residential customers on a basis similar to the long-term transportation tariffs ordered several months earlier in D.85-12-102, discussed above.

Once again, in this Decision, the Commission recognized that the world was changing: "The changing circumstances in the natural gas industry have been well-documented in this proceeding. … [W]e asked parties to discuss the implications of these changes for such fundamental policy areas as resources strategy, rate design, and ratemaking incentives. We have previously indicated our willingness to entertain changes in these policies. …"[9]

> The natural gas industry is in the midst of fundamental change. At the wellhead, natural gas deregulation under the Natural Gas Policy Act is creating a vigorously competitive commodity market. In such a commodity market, we expect that price will allocate any surpluses or shortages in the future. This could lead to potentially volatile price fluctuations, but creates less likelihood of the kinds of shortages that emerged in the mid-1970s under price controls. In the interstate pipeline markets, under Federal Energy Regulatory Commission Order 436 we expect pipelines to transport gas to customers, as well as selling its own gas supply. This will give pipeline customers much greater choice in selecting natural gas suppliers. Finally, the natural gas distribution companies face increasing competition from alternative fuels as well as from potential new pipelines.
>
> All of these changes warrant a fundamental reevaluation for our regulatory policies for the gas industry. Many of our practices, created in a period of natural gas shortages and high oil prices are in need of revision. In this order, we spell out what changes we believe would be beneficial for natural gas ratepayers.[10]

The Commission stated it flat out: The market has changed, and the old ways are no longer adequate for the new circumstances. The sale of gas itself is a competitive market, but the transportation of gas remains a monopoly that must be regulated.

> The deregulation of gas at the wellhead has changed fundamentally the nature of buying and selling natural gas. What was once a highly regulated procedure is emerging

[7] Decision D.85-12-102, *7
[8] CPUC Decision 86-03-057, 1986 Cal. PUC LEXIS 166
[9] Decision D.86-03-057, *1-2
[10] Decision D.86-03-057, *2-3.

> as a viably competitive market. With gas sales becoming a competitive enterprise, the portion of the gas industry which remains a natural monopoly is transportation, where the word "transportation" refers generally to the movement of gas through transmission and distribution pipelines. In this changed world, it now makes sense to restructure our regulation with a new emphasis on transportation as a foundation, as perhaps the essential business, of the gas companies we regulate. For those utility customers who are able to participate in the competitive gas sales market, it seems appropriate for the utility to separate its transportation services, which these customers require the utility to provide, from its sales services, which these customers may provide for themselves on a competitive basis.[11]

1986 – The Distinction Between "Core" and "Noncore" Service

Decisions D.86-12-009[12] and D.86-12-010[13] are two decisions passed on the same day, December 3, 1996. They established the distinction between Core and Noncore customers and gave customers the right to buy their own gas. Together, they provided a new unbundled rate design for unbundled natural gas utility services and restructured the natural gas services market by dividing it into separate core- and noncore customer classes, with new customer service options for unbundled gas transportation and commodity costs.

Decision D.86-12-009 caused the unbundling of rate design, a result of the Commission's plan "for the purpose of fine tuning our new regulatory program for the natural gas industry, which we first outlined in D.86-03-057."[14] The Commission realized that the gas industry had been made more competitive through actions on the federal level, and it was necessary for the Commission to adopt a "flexible, market-responsive rate design."[15] That meant an unbundling of the traditional combination service provided by the distribution utility and a de-averaging of rates.

> Traditionally, bundled service has included both procuring gas (a merchant function) and getting it to the burner tip (a transportation or transmission function). Today we have now separated these two functions on the basis that the merchant function is clearly competitive in nature, and the transmission function has natural monopoly characteristics with economies of scale. Yet at the same time, there exists alternate fuel competition with "bundled" natural gas service. Thus, we have a monopolistic structure for the transmission function, a very competitive structure for the merchant function, and a somewhat less competitive structure for the "bundled" service.
>
> To elaborate, the product or commodity that many buyers want is not just gas molecules but rather heat energy. This need can be supplied not only with gas molecules, but also with fuel oil, cheap surplus electric energy, etc. Arlon Tussing and others have referred to the alternative fuels market as the "b-fuels" market. At this

[11] D.86-03-057, *3-4.
[12] CPUC Decision D.86-12-009, 1986 Cal. PUC LEXIS 752
[13] CPUC Decision D.86-12-010, 1986 Cal. PUC LEXIS 754
[14] D.86-12-009, *1
[15] D.86-12-009, *1

> level it is easy to see that this market is characterized by many diverse buyers and sellers of easily substitutable commodities. The existence of this "b-fuels" market means that the entire gas service from wellhead to burner tip must compete with alternate fuels.[16]

Decision D.86-12-010 put into place the core, noncore distinction that the Commission proposed six months earlier. Noncore customers were allowed for the first time to pick and choose from among a variety of transmission and procurement options. Core customers with large volume usage were allowed to elect transmission-only service if they desired to do so. Except for such transmission-only customers, core customers continued to be provided traditional utility service on a bundled basis.

1990 – Interstate Pipelines – Let the Competitive Forces Determine the Need

Decision D.90-02-016[17] announced the Commission's position on issues pertaining to additional natural gas pipeline capacity into California. The Commission provided a range of need and a list of generic conditions to support any particular pipeline project. But the Commission did not endorse or adopt any proposed project or settlement. Instead, the Commission stated that:

> Part of our original intent was to designate a project, or a group of projects, as optimal for California. We also had encouraged the parties to negotiate among themselves and to present to us a comprehensive settlement for our consideration and possible adoption. … However, we decline to make such a designation, and we decline to adopt the proposed settlements.
>
> The constitutional and statutory responsibilities of this Commission can best be fulfilled by setting out clear conditions for Commission support of new capacity and by allowing competitive forces to further refine the proposals. These forces will determine which of the proposals meeting our conditions will actually be built.[18]

The Commission also considered whether it would be necessary to reallocate costs of existing pipelines if a customer would leave the existing local distribution company system entirely. The Commission was not persuaded that it should announce a position on reallocation or commit that it would reallocate in the future. It said:

> We believe the better policy is to let the current competitive forces determine the need for a new pipeline without a statement by us, one way or the other, on reallocation of costs. By letting the competitive forces resolve this issue we are saying, let those who want a new pipeline pay for it.[19]

The Decision took the Commission out of the business of choosing and determining the exact form of industry investment, allowing – even forcing – the service providers to make their own decisions based

[16] D.86-12-009, *2
[17] CPUC Decision D.90-02-016, 1990 Cal. PUC LEXIS 91
[18] D.90-02-016, *2-3
[19] D.90-02-016, *112-113.

on their analysis of the benefits. Noting, that during the proceeding, positions and proposals had continued to change, the Commission stated, "These changes may continue as the reality of the marketplace exerts its influence."[20] Let the market decide. Previously, the Commission worked through the utilities. Note: at that time there were no pipelines from the Rockies to California. Eventually, out of this decision came the Kern River pipeline.

1991 – Core Customers May Choose Suppliers Through Core Aggregation

Decision D.91-02-040[21] was another step in allowing more gas users to participate in gas markets. The decision set forth final rules governing transportation-only service for core gas customers who aggregate their loads. The original proposal came from a group called the School Project for Utility Rate Reductions (SPURR), and the Commission stated, it "represents a further step in the direction of more open and competitive gas markets. The rules offer small and medium-sized core customers their first opportunity to participate in competitive gas markets by aggregating their loads and purchasing their gas supplies from sellers of their choice."[22] Once again, a piece of what was traditional utility obligation was turned into an option for users to make their own choices. The utility companies remained responsible for transportation services but were no longer the sole determinants of the source of gas even for certain core customers. This core aggregation option was not immediately popular, but recently has become vogue, especially in PG&E's service area. This decision first approved the core aggregation program.

1991 – Rules for Utility Brokering of Interstate Gas Pipeline Capacity

Decision D.91-11-025[23] adopted rules for gas utility brokering of interstate pipeline capacity. Capacity brokering programs were set to become effective October 1, 1992 following implementation hearings in this proceeding and the Federal Energy Regulatory Commission's (FERC) granting of capacity brokering certificates to the interstate pipelines. The Decision states: "In general, the rules are designed to provide maximum access to interstate pipeline capacity."[24] The Commission was responding to the problem that under existing arrangements, noncore shippers did not have access to firm transportation to move their gas. According to the Decision, the problem was particularly acute on the interstate system because interstate pipeline was scarce. But capacity brokering programs would allow access to firm capacity to customers or shippers who purchase or transport their own gas. Not to leave the core customers behind, the Decision also required the utilities to reserve certain quantities of transportation capacity for the core and wholesale customer classes.

1992 Unbundling of Interstate Transmission Costs

Decision D.92-07-025[25] of July 1, 1992 allowed the unbundling of the costs of interstate transmission of gas for noncore customers. It adopted final rules for implementing brokering of firm interstate capacity using transportation rights held by the gas utilities on the interstate natural gas pipeline systems. The

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[20] D.90-02-016, *4
[21] CPUC Decision D.91-02-040, 1991 Cal. PUC LEXIS 84
[22] D.91-02-040, *1
[23] CPUC Decision D.91-11-025, 1991 Cal. PUC LEXIS 739
[24] D.91-11-025, *1
[25] CPUC Decision D.92-07-025, 1992 Cal. PUC LEXIS 617

rules adopted in that decision were consistent with the more general capacity brokering program adopted in D.91-11-025 discussed above. Decision D.92-07-025 came in the wake of Federal Energy Regulatory Commission (FERC) Order 636,[26] which resolved outstanding issues relating to allocation of firm interstate pipeline capacity. This Decision of the CPUC provided much detailed discussion of specific details of how to proceed in light of developments at the federal level. While this decision is important in that it laid out precise rules in response to FERC Order 636, it was not a new policy-making document. It was a decision that accommodated the industry in its need to act in a competitive manner to serve California's core and noncore gas customers.

1993 – Unbundling of Storage Costs for Noncore Customers

Decision D.93-02-013[27], February 3, 1993, began the process of unbundling storage costs for noncore customers. The decision adopted rules for permanent natural gas utility storage programs. It authorized unbundling of noncore storage service consistent with Federal policies and consistent with previous unbundling of noncore gas supply and transportation service. In particular, "A 'let the market decide' policy is adopted for construction or expansion of storage facilities."[28] The decision adopted market-based noncore storage rates including incremental rates for service derived from new or expanded facilities. In this decision we see "Let the Market Decide" become a mantra. Section 5.1 is in fact titled, "'Let the Market Decide' Policy."[29] It outlines the Commission's objective of creating an environment for competitive forces to work in the gas pipeline industry and how it was instituted beginning in D.90-02-016, discussed above. It continues:

> These policy principles extend to gas storage service. Making the necessary distinctions between transportation these policy principles extend to gas storage service. Making the necessary distinctions between transportation and storage service, we adopt a "let the market decide" policy for gas storage. We begin by setting forth the goals of a new gas storage policy. The goals flow from the fundamental utility obligation to provide safe, reliable service at reasonable, nondiscriminatory rates:
>
> * To ensure that adequate, reasonably priced, stable, and reliable gas supplies are available to core customers.
>
> * To achieve and maintain access to diverse gas sources so that all gas customers in California can obtain adequate, reliable, reasonably priced gas supplies.
>
> * To reduce the likelihood of peak period curtailments in a cost-effective manner.
>
> * To avoid the negative consequences of uneconomic bypass.

[26] Federal Energy Regulatory Commission, Docket No. RM 91-11-000, 59 FERC Paragraph 61,030 (1992)
[27] CPUC Decision D.93-02-013, 1993 Cal. PUC LEXIS 66
[28] D.93-02-013, *1
[29] D.93-02-013, *11

* To ensure that the costs of existing storage facilities – including unsubscribed capacity – and facility expansions are fairly allocated among customer classes.[30]

The result was that noncore customers could sign up for storage capacity with the utility or not, or with an independent gas storage facility. The first facilities that came about as a result of this opening up of storage options appeared in the late 1990s. They included the Lodi, Wild Goose, and Gill Ranch Storage facilities.

1995 – Bypass and Peaking Rates – Avoiding Uneconomic Bypass

Decision D.95-07-046[31] granted the application of Southern California Gas Company (SoCalGas) to implement a load-specific flexible rate design for noncore customers that chose to partially bypass the Company's transportation system. The Commission found that the proposal, as modified, was consistent with its "let the market decide" policy and furthered its continuing objective to promote efficient utilization of the state's natural gas system. By the term "uneconomic bypass" the Commission was referring to the idea that a customer might find it in its own interest to partially bypass SoCalGas' distribution system to achieve a cost savings on its own bill when in fact, the savings to the system was less than the savings to the customer. Total costs (including the cost of bypass) would actually rise even though the customer itself would see a savings. This result could occur through a feature of SoCalGas' then current rate design that "may encourage some customers to partially bypass its system and offer partial requirements customers subsidized rates. A rate design that better reflects costs will provide potential bypass customers with 'an accurate accounting of the costs they incur for potential bypass.'"[32] The Commission noted that the concept was new and, to some, appeared discriminatory. It said:

> Our intention is to provide the LDCs the necessary tools to engage in a more competitive market with the objective of preventing uneconomic bypass by conveying efficient price signals to consumers. We apply this load specific flexible rate design to prospective partial bypass customers at this time. A customer that decides not to bypass does so because it is not in its economic interest. Customers who choose to partially bypass will do so because they believe themselves better off than as a full-requirements customer of the utility. That a customer is not as well off as it would be if it could continue to receive partial-requirements service under the existing rate design should not be seen as unduly discriminatory. Our proposal merely internalizes the externality cost a customer imposes on the general body of ratepayers by its decision to bypass under the current regulatory framework. Internalizing this externality will allow consumers to make rational economic decisions (economic bypass decisions) to the benefit of gas consumers generally. We do not see this as unduly discriminatory.
>
> We can hardly dispute the claim by some that SoCalGas' proposal will affect competition. That is our intention. The fact that the current tariff structure does not

[30] D.93-02-013, *12-14 (citations omitted)
[31] CPUC Decision D.95-07-046, 1995 Cal. PUC LEXIS 596
[32] D.95-07-046, *1-2

allow the LDCs to effectively compete with bypass proposals is the reason we have considered SoCalGas' application.[33]

With this decision, the Commission provided a method for SoCalGas to compete in an effective manner, providing a peaking rate to customers that did not subsidize the customer's option to partially bypass the Company's local distribution system.

1997 – The Gas Accord, Unbundling Intrastate Transmission

Decision D.97-08-055[34] approved the PG&E Gas Accord, which, among other actions, unbundled from rates the cost of PG&E's intrastate backbone transmission system in northern California. While much of the decision involves the settlement of some longstanding cases regarding PG&E's conduct, costs of expansion, and operation of a particular line, Line 401, the California segment of a natural gas pipeline expansion project that extends from Alberta, Canada to Kern River Station in Southern California, the important elements of the decision are related to unbundling PG&E's gas rates:

> In a nutshell, the Gas Accord would: (1) unbundle gas transportation service into specific paths, with assignment of capacity to core customers, and partial roll-in of Line 401 costs into Line 400 rates; (2) offer various service options to existing Line 401 firm service customers; (3) include core procurement costs in rates based on two [Core Procurement Incentive Mechanism] proposals; (4) settle contested issues regarding [Interstate Transaction Cost Surcharge] amortization, Line 401 capital costs, and recent gas reasonableness reviews, including PG&E's federal district court challenge to one of our reasonableness reviews; and (5) set transmission , and storage rates for the Gas Accord period through December 31, 2002.[35]

The Gas Accord would, the decision states, "unbundle PG&E's gas transmission system into separate services. This would improve flexibility and customer choice among noncore service options, and would allow a closer match of transportation rates with facilities used to provide service."[36] This decision opened up the back-bone of PG&E's gas transmission system allowing customers to purchase the services they need at prices that reflected actual costs, avoiding decisions that could result in false economies or uneconomic bypass of the system. Customers could act on their own, or they could work through an aggregator and purchase services indirectly. Core customers were protected through an allocation program.

1998-99 – CPUC Goals in Natural Gas Market Structures

In January, 1998, the Commission opened a Rulemaking Proceeding R.98-01-011[37], "to assess the current market and regulatory framework for California's natural gas industry and to adopt reforms

[33] D.95-07-046, *21-23
[34] CPUC Decision 97-08-055, 1997 Cal. PUC LEXIS 763
[35] D.97-08-055, *30
[36] D.97-08-055, *35
[37] CPUC Order Instituting Rulemaking R.98-01-011, 1998 Cal. PUC LEXIS 119

which emphasize market-oriented policies that will benefit all California natural gas consumers."[38] That order specifically asked for ways to reform the gas system generally:

> For over a decade, federal and state regulatory agencies have instituted and implemented policies to provide customers with access to competitive natural gas supplies. Reform of California's natural gas industry has opened access to highly competitive production supply markets serving the state, encouraged competition for transporting those supplies over interstate and intrastate pipelines, and provided alternatives for managing and hedging gas supply options such as storage services. The Commission encouraged these changes by adopting market-oriented policies with respect to unbundling a limited number of utility services, the pricing of utility services, and building new facilities for transmission and storage.[39]

In stating the goals, the Rulemaking stated:

> We are concerned that California consumers have not fully benefited from past natural gas reforms. The Commission, in its electric restructuring policies, has sought to bring small consumers the benefits of direct, unfiltered access to competitive services. We establish this rulemaking to ensure that all California consumers have a multitude of meaningful choices in energy services and that they have every opportunity to benefit from the greater efficiencies and service innovations we expect from competitive energy markets.[40]

Over the course of that rulemaking, the Commission put out three substantive decisions. Decision D.98-08-030[41] in particular, identified the Commission's goals in assessing natural gas market structures and considering a long-term strategy for restructuring the industry within the whole state for all customer classes. It stated that "[t]he underlying philosophical premise is that where there are competing providers of goods and services, the variety and quality of those offerings will improve and providers will be motivated to keep prices competitively low."[42] Further, "it is our goal to regulate this industry in a manner that enhances the influence of competitive market forces."[43] The list of goals was presented as follows:

> 1. To complement and enhance the benefits of electric restructuring.
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> 2. To eliminate inappropriate cross-subsidies.
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> 3. To guard against unnecessary barriers to the entry of competitors into various aspects of the natural gas market.

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[38] R.98-01-011, *1
[39] R.98-01-011, *1
[40] R.98-01-011, *4
[41] CPUC Decision D.98-08-030, 1998 Cal. PUC LEXIS 576
[42] D.98-08-030, *1
[43] D.98-08-030, *2

4. To mitigate competitive abuses that may occur because one firm exerts inordinate control over the functioning of the marketplace.

5. To enhance competition by providing separate rates for each major component of utility service and allowing customers to choose to have other firms substitute their services and charges where appropriate.

6. To ensure that the rates customers pay for utility services reflect the cost of those services.

7. To preserve the low costs currently enjoyed by California natural gas customers.

8. To provide adequate consumer protection.

9. To ensure that natural gas service is safe and reliable.[44]

Those goals are subtly different from those that would have been articulated 15 years earlier when the regulated incumbent local distribution companies were fully vertically integrated, and the method used to protect customers was not independent competition but regulatory control.

Decision 99.07-015[45] stated that "we have identified the most promising options for further consideration. Once we have considered the costs and benefits of various options, we will prepare a report to the Legislature setting forth the changes that we propose be undertaken."[46]

Finally, on the same day, the Commission opened an Order Instituting Investigation, I.99-07-003,[47] "to receive evidence concerning the costs and benefits of the various change options and to consider the final proposals that should be included in a forthcoming report to the Legislature."[48]

1999 – Assembly Bill (AB) 1421 Clarifies Core Service and Makes Restructuring Possible

The Legislature was able to respond to the Commission. It agreed that California law was preventing the Commission from enacting any gas restructuring program until the year 2000. The legislature repealed the old language and substituted new statues clarifying its intent that the utilities continue to serve the core customers with bundled services.[49]

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[44] D.98-08-030, *6-7.
[45] CPUC Decision D.99-07-015, 1999 Cal. PUC Lexis 482
[46] D.99-07-015, *1-2.
[47] CPUC Order Instituting Investigation I.99-07-003, 1999 Cal. PUC LEXIS 473
[48] I.99-07-003, *1-2.
[49] Assembly Bill No. 1421 (Wright), Statutes of 1999. An act to add Sections 328.1, 328.2, and 374.5 to, and to repeal and add Section 328 of, the Public Utilities Code, relating to public utilities.

2000 Northern California Restructuring – Two Decisions following up the Gas Accord

A fully restructured gas system was put in place in Northern California through two decisions of the Commission in the year 2000. February's D.00-02-050[50] approved a settlement of PG&E and other parties regarding Operational Flow Orders (OFOs), the protocol for operations of the gas transmission system "when there is an intolerable imbalance between the gas received on the system and the gas delivered from the system."[51] Referring to Decision D.99-07-015, discussed above, it states:

> "We identified a number of 'promising options' for further investigation in our continuing revision of the regulatory structure governing California's natural gas industry. Among those promising options were some arising from PG&E's practice of declaring an OFO when it believed that pipeline inventory would be above or below a tolerable range. The proposed settlement considered here responds to some of the expressed concerns of customers regarding the OFO process. It does not respond to the bulk of the promising options Commission wishes to investigate. Therefore, another settlement or an evidentiary hearing will be necessary and this decision is designated an Interim Opinion in this docket."[52]

A second settlement that did respond to the bulk of the promising options was shortly forthcoming. In May, only three months after the OFO decision, the Commission issued D.00-05-049[53], which approved a settlement that met its objectives:

> In this opinion, we consider an uncontested settlement proposal addressing all the promising options raised in Decision (D.) 99-07-015 as applied to the Pacific Gas and Electric Company (PG&E) natural gas system. The Settlement Parties move for approval of the attached Comprehensive Gas OII Settlement Agreement and request that the Commission makes certain findings.
>
> In keeping with Rule 51 et seq. of the Commission's Rules of Practice and Procedure, we approve the settlement as being reasonable in light of the whole record, consistent with the law, and in the public interest. We also find that under Assembly Bill (AB) 1421 and other relevant law brought to our attention, nothing in this Settlement Agreement shall require PG&E to offer consolidated gas billing for Core Transport Agents (CTAs) prior to its Billing Availability date.[54]

The settlement was uncontested and included about 25 parties. In a statement that could be considered triumphal, the Decision states: "The Settlement Agreement at issue here addresses all the other promising options discussed in D.99-07-015 that pertain to the PG&E system."[55]

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[50] CPUC Decision D.00-02-050, 2000 Cal. PUC LEXIS 196. This Lexis report is without bracketed "*" numbers to indicate pages. The two notes below indicate where the quotes can be found in the text.
[51] D.00-02-050, note 1
[52] D.00-02-050, "Discussion"
[53] Decision D.00-05-049, 2000 Cal. PUC LEXIS 381
[54] D.00-05-049, *1-2, internal citations omitted.
[55] D.00-05-049, *8, internal citation omitted, emphasis added.

2000-2001 – Residual Gas Rate Replaced by Peaking Rate

Decision D.00-04-060[56] was a general rates decision and, therefore, covered many issues. One restructuring matter that was discussed at length was a revisit of the uneconomic bypass issue. Known as the Residual Load Service (RLS) tariff, the purpose was to prevent large gas customers from partially bypassing SoCalGas' system, placing all base load gas transportation through a competitive supplier and placing peaking load on the SoCalGas system, thereby shifting costs from themselves to SoCalGas' core customers and other remaining customers. While the Commission was in favor of competition and economic bypass, it wished to avoid uneconomic bypass, which occurs when the customer's savings from bypass are less than the costs avoided by the utility. SoCalGas and TURN objected to abolishing the RLS tariff, arguing that removing it would result in "shifting of costs from large customers to captive customers."[57] But the Commission disagreed:

> [I]t is apparent to us that in the long term the RLS tariff's detriments will outweigh its benefit…. At this time we are confident that the RLS tariff keeps rates down for all SoCalGas customers, except those who would partially bypass. But, the evidence persuades us that perpetuating the RLS tariff will have the pernicious effect of causing an increase in rates resulting from throughput being substantially reduced as SoCalGas is bypassed by new large customers.[58]

The Commission indicated that the RLS tariff should be replaced simultaneous with the effective date of a new peaking tariff. "Absent the RLS tariff, the different rate structures offered by SoCalGas and bypassing interstate pipelines would provide an unjustified advantage to customers that partially bypass SoCalGas."[59] The Company responded, and the Commission was able to replace the RLS with a new Interruptible Peaking Rate in D.01-08-020, discussed next.

D.01-08-020[60] established a cost-based peaking tariff and an Interruptible Peaking Rate for SoCalGas. The Decision noted that in the 1990s the Commission had been increasingly concerned that SoCalGas' noncore customers would partially bypass the SoCalGas system in favor of taking base load service from a competing interstate pipeline. Therefore, it was reasonable at that time to institute a Residual Load Service tariff. But, quoting from D.00-04-060, the Commission recognized that the RLS tariff's long term detriments outweighed its benefits. The Decision states, "we are concerned that it has effectively discouraged new pipeline competition in SoCalGas' service territory. To the extent the tariff provides a means for SoCalGas not to compete, California gas consumers have fewer options available to them.[61] The Company still maintained that uneconomic bypass was a threat and proposed peaking rates as an alternative. The Decision established a cost-based peaking tariff rate composed of a customer charge, a public purpose program charge, and a reservation charge for firm peaking service. The Decision also established an interruptible peaking rate.

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[56] CPUC Decision D.00-04-060, 2000 Cal. PUC LEXIS 396
[57] D.00-04-060, *132
[58] D.00-04-060, *136
[59] D.00-04-060, *141
[60] CPUC Decision D.01-08-020, 2001 Cal. PUC LEXIS 572
[61] D.01-08-020, *26

2001 – Confirmation of Results of Restructuring – SoCalGas Comprehensive Settlement

Decision D.01-12-018[62] adopted a major restructuring of the services offered by SoCalGas. It approved (with modification) the Comprehensive Gas OII Settlement Agreement supported by over 30 parties representing all segments of the natural gas industry. The Commission noted that the PG&E restructuring was accomplished through "an uncontested settlement that dealt with virtually all of the remaining promising options on the PG&E System, and that extended the unbundling begun in the Gas Accord. However, no uncontested settlements were forthcoming with regard to the SoCalGas system."[63] The final Comprehensive Settlement that was approved with modifications in this decision was similar to Gas Accord adopted for Northern California in 1997 and to other settlements proposed in the proceeding. As stated in the decision, This Comprehensive Settlement "also attempts to address all of the promising options in Decision D.99-07-015. Its focus is on creating opportunities for competition, while minimizing cost shifts between customer classes."[64]

A comprehensive description of the Comprehensive Settlement as Modified is beyond the scope of this paper. The simplest explanation is that the cost of SoCalGas' backbone intrastate transmission system would be unbundled from rates on an embedded cost basis, and the Company would be placed at risk for its annual revenue requirement. There would be auctions for capacity reservations and many other features to allow large buyers of gas, particularly electric generators, to act with confidence in an open and competitive market. At the same time, core procurement would be protected. This decision was a confirmation that the restructuring of the gas industry had become firmly established in California – in the North, and now, in the South as well.

2006 – SoCalGas Final Touches on Restructuring

The major changes to the gas system in California were accomplished by 2001. Still markets are always looking for efficiencies, and regulators are always bedeviled by difficulties in keeping public policies up to date. Two decisions from 2006 illustrate that even after the PG&E Gas Accord and the SoCalGas Comprehensive Settlement, there were still some areas that needed updating.

Decision D.06-04-033[65] affirmed the proposal of SDG&E and SoCal Gas for system integration of transmission related costs so that customers of each utility would share in the transmission costs of both utilities. The Commission agreed and approved the system integration proposal. At the time, SDG&E was a wholesale customer of SoCalGas and received all of its natural gas from SoCal Gas. If regasified Liquid Natural Gas (LNG) were to be delivered at Otay Mesa, natural gas could flow from SDG&E to SoCalGas. The companies sought Commission approval of a system integration proposal. The two companies' gas transmission systems were already operated on an integrated basis, including the monitoring and control of the delivery of gas on the two systems as well as a single nomination and scheduling system. But under the then current operations, the transmission and distribution costs of the two utilities remained separate. The Commission approved the application:

[62] CPUC Decision D.01-12-018, 2001 Cal. PUC LEXIS 1137
[63] D.01-12-018, *11-12
[64] D.01-12-018, *24
[65] CPUC Decision D.06-04-033, 2006 Cal. PUC LEXIS 292

> Based on all of the above considerations, the system integration proposal of SDG&E and SoCalGas should be adopted. Although the integration of the transmission costs of the two utilities will result in higher transmission rates to the customers of SoCalGas, we believe that the flow of regasified LNG from Baja California through Otay Mesa will benefit the customers of SDG&E and SoCalGas. The rate impact on the customers of SoCalGas is outweighed by the benefits of having access to an alternate supply source of natural gas, and the price pressure that should result from this new source.[66]

In Decision D.06-12-031[67] the Commission adopted a system of Firm Access Rights (FAR) for SDG&E and SoCalGas in replacement of the then current system of allocating capacity. It also approved the off-system delivery service to PG&E and the gas pooling service. The off-system service would allow gas supplies to flow from SoCalGas' transmission system on to PG&E's transmission system. The Commission stated that "This off-system service will open up new markets in northern California to potential gas suppliers based in southern California. The gas pooling service will improve and facilitate gas trading and exchanges on the SDG&E and SoCalGas system."[68] The Commission was almost poetic in summarizing its result:

> This decision represents the end of a journey that began in 1998 when we first opened a proceeding to identify reforms to the gas industry in California. The decision also represents the beginning of a new journey as we adopt a FAR system for SDG&E and SoCalGas.[69]

A long journey, indeed. The reference to 1998 relates to the Rulemaking Proceeding to assess the current market and regulatory framework for California's natural gas industry and to adopt reforms which emphasize market-oriented policies to benefit all California natural gas consumers. And that is a suitable point for reference. But we should understand that the market changes in the gas system – changes that forced the California gas utility companies to change – began long before that.

Summary and Restatement

Today, core gas users in California receive service in much the same way they did decades ago. Residential and other core customers pay fully regulated rates that are established in traditional published tariffs approved by the Commission. Noncore customers have many options, and their service is price regulated only for those parts of their service that are directly controlled by the local distribution companies. For the rest, they can purchase their own gas, have it transported and stored on their behalf, and have it delivered to their points of usage in ways that serve their needs best. The Commission did not design this new way of doing business; it accommodated the changes that developed in markets. The Commission did not determine which pipelines should be constructed. It did not determine which storage facilities should be constructed. Even in a rulemaking proceeding that the

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[66] D.06-04-033, *99
[67] Decision D.06-12-031, 2006 Cal. PUC LEXIS 437
[68] Decision D.06-12-031, 2006 Cal. PUC LEXIS 437, *2-3
[69] D.06-12-031, *1

Commission opened on its own volition, the Commission made it clear that it was concerned that consumers had not fully benefited from other reforms. The Commission did not create the market changes; it responded to them so that California's gas customers and the California utilities that provide service would be able to provide service in the most efficient and economical ways. The result was a complete change in the business of the gas utilities while core customers retained the protection of a fully engaged and involved Commission.