

## 6. State Regulators Promote Consumer Choice in Retail Gas Markets

Restructuring of interstate pipeline companies has created new choices and challenges for local distribution companies (LDCs), their regulators, and their customers. The process of separating interstate pipeline gas sales from transportation service has been completed and has resulted in greater gas procurement options for LDCs. Now LDCs can buy gas directly from producers or third-party marketers in a competitive market, arrange for storage and other services, and contract with pipeline companies for transportation.

Large industrial customers and electric utilities have had access to competitively priced natural gas supplies for a number of years. Consequently, some high-volume users had physically bypassed LDC systems, buying transportation and gas supplies from pipeline companies and third-party marketers. State regulators wanted LDCs to be able to compete for large customers that have access to alternative sources of gas supply or alternative fuels. With the agreement of their regulators, LDCs began to develop transportation programs to compete for and retain the business of their large customers.

Unbundled sales and delivery services for large industrial and electric utility customers are now commonplace. Based on a sample of LDCs, bundled sales delivery to industrial customers has declined from over 47 percent in 1987 to barely 24 percent in 1995, while for commercial customers it declined from 93 percent to 77 percent (Figure 42). Meanwhile, residential customers continue to take almost 100 percent bundled service. The challenge for State regulators and other industry participants is to find ways to extend opportunities to choose gas service suppliers to smaller commercial and residential customers.

Some regulatory agencies have begun to reduce the threshold volume of gas consumption needed to qualify customers for LDC transportation-only services. They are initiating experiments to encourage smaller customers, even residential users, to aggregate into groups and exercise choice in gas markets. All of these changes are clearly driven by regulators and industry's desires to give consumers access to gas services that meet individual needs in the best way and at the least cost.

State regulators face an array of considerations in determining how to capture the benefits of unbundled wholesale and retail service for small commercial and residential customers. Some of these issues include:

- What is the smallest customer class that would benefit from taking unbundled sales and delivery service? Can the benefits of deregulation be extended to small customers

through aggregation schemes? Can regulators avoid cost shifting from the competitive market to captive customers?

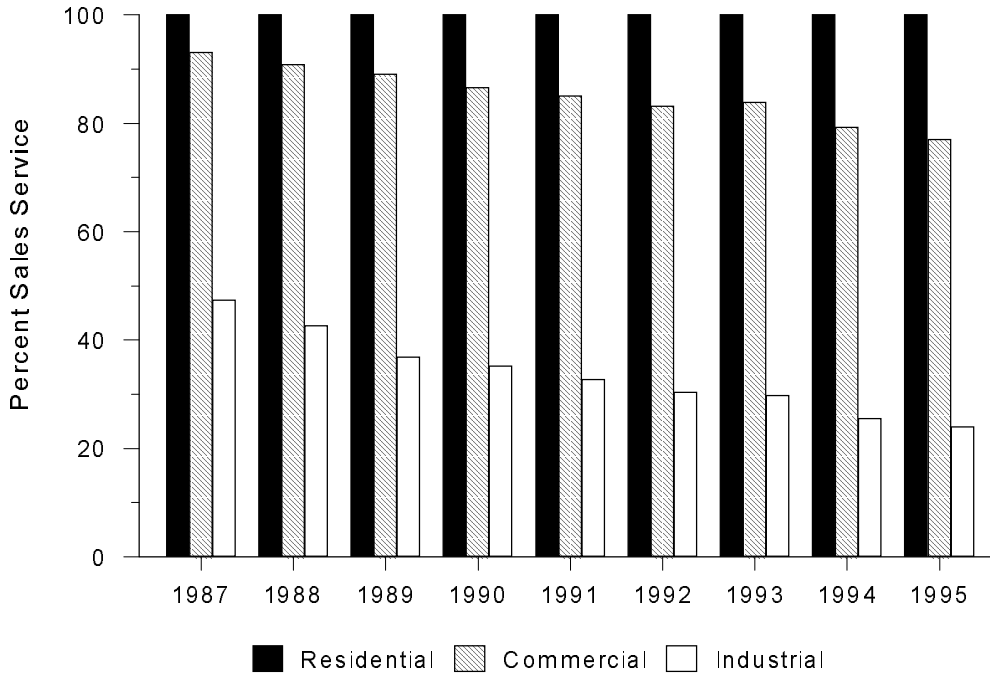
- What unbundled services can be offered competitively to all classes of customers? For example, should services such as billing, equipment repairs, and metering be offered competitively?
- How should unbundled service be priced? Regulators have traditionally based rates on the costs of providing the service. In a competitive market the price would reflect supply and demand. Some State regulators are attempting to bring the benefits of the competitive market to the noncompetitive market using performance-based rates.
- What obligation does the local distribution company have as a supplier of last resort to serve customers who have chosen to buy gas through a third party? Who is responsible for maintaining system reliability and how will its costs be allocated?
- How should costs associated with the transition to a competitive market be shared among LDC shareholders and the various customer classes?
- What is the appropriate corporate structure of an LDC in a more competitive environment?

Many of these issues relate to regulators' key responsibilities to ensure reliable service and to protect the interests of captive commercial and residential customers from excessive cost shifting by the industry. Many States are concluding that it is possible to capture the benefits of unbundled sales and delivery service for small customers, without degrading overall system performance.

### Extending Choice to Small Customers

State regulators are experimenting with various methods to extend choice to small customers. Some regulators are

**Figure 42. LDCs Sell a Smaller Share to Industrial and Commercial Customers, 1989-1995**



LDC = Local distribution company.

Source: Energy Information Administration (EIA), Office of Oil and Gas, derived from Form EIA-176 data on sales and transportation deliveries by customer class, based on a large sample of LDCs.

making provisions to allow third-party marketers to aggregate gas needs of smaller residential and commercial customers to overcome minimum threshold requirements.<sup>117</sup> Under these proposals, small customers would purchase gas from a gas broker who aggregates their loads and contracts for transportation and gas supplies with pipeline companies, producers, and/or other marketers. For example, the New York State Public Service Commission on May 1, 1996, permitted core customers who use more than 35,000 therms of gas annually to purchase gas from third-party marketers. This program allows marketers to aggregate smaller residential and commercial customer gas loads so that the minimum threshold requirement for obtaining unbundled delivery-only service from the LDC can be met.

One obstacle to retail competition is that most interstate pipeline capacity, storage, and other facilities for delivering gas to the citygate is held by LDCs. Some public utility commissions have required LDCs to assign a portion of their firm interstate pipeline commitments and storage capabilities

to large industrial and commercial customers. This capacity can be used by these customers to transport gas purchased from a third-party marketer. As part of their unbundling programs, some regulators are requiring that LDCs make available upstream facilities to their smaller customers, so that these customers do not have to contract with interstate pipeline companies directly. This “capacity” reassignment has the advantage of shifting some financial obligations from LDCs to the transportation customer, and any savings can be passed along to the LDCs’ captive customers.

In extending choice to small consumers, regulators must ensure that remaining customers do not incur higher charges as a result of LDCs spreading their fixed costs over fewer customers. Customers leaving an LDC’s system results in a shrinking customer base, and rates to remaining customers will likely increase, other things being equal. Most regulators are handling this problem by continuing to oversee rates charged to captive customers. However, others believe that a competitive retail gas market will not allow LDCs to pass along these higher costs.

<sup>117</sup>Minimum threshold requirements are often established to minimize the wholesale exodus of LDC customers to independent marketers, which could place the LDC in financial hardship and/or result in large price increases for remaining captive customers.

## Unbundled Services

States are challenged with identifying services that can be offered in a competitive market. They also must identify which customers would benefit from taking unbundled services. Unbundling need not stop with supply and transportation. LDCs provide many ancillary services, including storage, load balancing, billing, metering, and equipment repair that could be provided by third parties.

When deciding which services to unbundle, public utility commissions must first determine whether savings and gains in efficiency outweigh the cost of unbundling. They also want to ensure the quality of service for all customers, the dependability of third-party marketers, and avenues of recourse in the event that a marketer fails to perform on its contracts.

One rationale behind unbundling is that by picking and choosing, consumers can tailor gas service to meet their particular needs and in the process reduce their overall costs. For example, an industrial customer that has access to alternative fuels can afford greater risk in its supply and transportation arrangements, perhaps taking mostly interruptible service. Hospitals and schools require greater supply and transportation reliability to meet seasonal and daily requirements. They would probably also need expensive backup supply in case of an emergency. However, even they could benefit from unbundling which would enable them to contract for various qualities of supply and transportation that best fit their needs.

## Pricing of Unbundled Services

The pricing of unbundled service will depend on the degree of competition for each of the services. On one hand, regulators need not oversee the pricing of gas services offered in a competitive market. On the other hand, regulators will want to continue to regulate the prices of monopoly services. Almost all public utility commissions (PUCs) still consider gas delivery to be a monopoly service that should continue to be regulated. Consequently, PUCs are attempting to institute various incentive (or performance) based rate schemes to encourage LDCs to reduce distribution costs and then pass these savings through to consumers (see box, p. 116).

The correct determination of services that can be offered under competitive pricing is critical. If the PUC regulates rates for a competitive service, the LDC could lose customers and LDC rates to remaining customers would probably rise. If the PUC allowed excessive price flexibility for a service in a monopolistic market, higher prices and customer price discrimination could occur.

The industry is investigating the use of real-time pricing that allows variable pricing of services depending on system load. Pricing service this way could result in better load management as consumers become aware of peak prices and reduce their consumption during peak demand times. For these programs to succeed the extra expense of real-time metering must be less than the savings from better load management.

## Corporate Structure

To ensure a fair and competitive retail market, State regulators will continue to oversee the corporate structure of LDCs. Many LDCs are establishing unregulated affiliates to compete with third-party marketers, pipeline companies, and producers. Regulators are requiring LDCs to restructure their operations so that they cannot show favor to their own marketing affiliates when setting transportation rates. Three types of unbundling provide increased assurance that corporate affiliates will not be given preferential treatment and that effective competition will be fostered.

- **Functional Unbundling.** Services are offered on an unbundled basis, but the corporate structure remains the same. This provides the least assurance that an LDC will be unable to provide preferential treatment to other arms of the company.
- **Corporate Unbundling.** Services are offered by separate corporations under an umbrella corporation or holding company. Various safeguards are erected to ensure that affiliate corporations do not provide preferential treatment to each other.
- **Corporate Divestiture.** The corporation is required to sell affiliates that could benefit from preferential treatment if it were to remain part of the corporation. This provides the most assurance that the company has no incentive to favor a particular marketer.

Brooklyn Union's corporate restructuring plan, recently filed with the New York Public Service Commission, is one example of ongoing restructuring of LDCs.<sup>118</sup> Under the plan, Brooklyn Union would become a holding company with three main business units concentrating on local distribution, energy marketing, and energy-related investments in international ventures.

As part of its plan, on May 2, 1996, Brooklyn Union announced the formation of a gas-marketing affiliate,

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<sup>118</sup>Brooklyn Union Press Release (April 25, 1996).

## Performance-Based Ratemaking

Regulators have proposed and implemented a variety of rate structures that move away from traditional cost-of-service rates and provide incentives for firms to lower costs and operate more efficiently. Incentive rates provide opportunities for firms to earn and keep profits in excess of their allowed rate of return as long as prices to consumers do not increase too much or more than they would otherwise. The Federal Energy Regulatory Commission (FERC) has asked pipeline companies to file incentive rate proposals for transmission and other regulated tariffs, while several States have established incentives for local distribution companies (LDCs) to lower their gas purchase costs.

Traditional cost-of-service rates do not promote innovation and efficiency by regulated firms. Simply stated, cost-of-service rates are based on a “snapshot” of a firm’s total cost of providing service plus a “fair” profit. Once rates are set by the regulator, there is no incentive for a company to try and reduce costs or operate more efficiently since in the long run they could not keep any additional profits in excess of the allowed return. In fact, cost-of-service rates can have the perverse effect of providing incentives for a firm to operate less efficiently. For example, since the rate of return is based on the cost of capital, firms could increase revenues by increasing their invested capital. Also, most day-to-day operating costs, such as the cost of gas for an LDC, can be passed straight through to customers, providing no incentive for firms to seek cheaper gas supplies. To address these issues, several types of incentive rate schemes have either been implemented or are under consideration, including: cost indexing, price caps, flexible rate of return, and profit sharing.

**Cost indexing** is similar to traditional cost-of-service based rates, but firms are allowed to keep additional profits resulting from cost reductions. A target rate for a service is established based on a firm’s cost-of-service. The target rate is then indexed to a widely available price. For example, an LDC’s gas purchase costs might be indexed to the price of gas on the spot market. Profits or losses resulting from deviations from the target are then shared between shareholders and customers. A major drawback to cost indexing is that a traditional rate review proceeding is required to establish costs in the base year. Regulators rely on data provided by the firm and there is an incentive for firms to overstate their costs in order to earn greater returns. Cost indexing is very similar to traditional cost-of-service rate regulation, and although it provides incentives for firms to operate more efficiently, it does not necessarily lead to an equitable solution or a more efficient market. However, a number of other incentive rate schemes have been proposed and implemented that provide incentives for firms to operate more efficiently and also lead to a more equitable solution for customers.

**Price caps** are one of the most widely used forms of incentive rate regulation and are used worldwide in the gas, electric, and telecommunications industries. Under a price cap, changes in the price of a service are constrained by indices that reflect overall industry cost trends adjusted for productivity improvements rather than costs for individual firms. This provides an incentive for the individual firm to try to reduce total costs and to exceed productivity growth of the industry average so that they can earn higher profits. Many price cap proposals share the higher profits between shareholders and customers, while other proposals allow the firm to retain all incremental profits. Allowing the firm to retain all incremental profits maximizes the incentive for a firm to cut costs, while the benefits accrue to consumers when the price cap is reduced at the next rate review.

Regulators must address a number of issues before price caps can be successfully implemented. For example, should price caps be placed on all services provided by a firm, or just on monopoly services? In competitive segments of an industry, firms already have a market incentive to reduce their costs. Placing price caps on monopolistic services would make it difficult for a firm to subsidize lower rates, in markets where it faces competition, by raising prices in the monopoly market. However, firms could potentially circumvent this aspect of price caps by reducing quality of service to their monopoly customers. A major disadvantage to price caps is that under favorable conditions a utility could potentially earn large windfall profits. Recent windfalls to electric utilities in Britain resulted in a public outcry and government review of utility price cap mechanisms. Several incentive rate proposals attempt to remedy these problems by placing a cap on profits rather than on prices.

**Flexible rates of return** place limits on the size of a firm’s profits. “Dead bands” are developed around a predetermined rate of return in which the firm can operate and make a greater or lesser profit. For example, a regulator might establish a dead band between a rate of return of 11 and 14 percent, on either side of 12.5 percent, the firm’s cost of capital determined in a conventional cost-of-service rate case. Between 12.5 percent and 14 percent, the LDC would retain all the profits. Profits exceeding 14 percent would be shared between the LDC and its customers. Likewise the LDC could add a charge to customers if the rate of return falls below 11 percent. Flexible rates of return are easier to implement than price caps, requiring less information about costs and indexes. However, the dead bands must be broad enough to provide sufficient incentives to the firm, while at the same time not resulting in unreasonable windfalls. Another variant of incentive rates, profit sharing, eliminates dead bands, with all profits shared between firm shareholders and customers.

**Profit-sharing** schemes are easier to implement than price caps or flexible rates of return, requiring less information by regulators. Under profit sharing, consumers and firm shareholders split profits over and above a specified level according to a predetermined share.

KeySpan Energy Services Inc.<sup>119</sup> KeySpan Energy Services will buy and sell gas and provide transportation and related services, initially to individual large commercial and industrial customers and then to aggregated residential and small commercial customers.

Another example is the plan by Pacific Gas and Electric (PG&E), a leading distributor in California, to restructure its operations and form a holding company. Under the restructuring, PG&E would transfer its ownership in Pacific Gas Transmission, an interstate pipeline company that transports gas from Canada to California, to the holding company. The restructuring is expected to be completed by the end of 1996.

## Obligation to Serve

State regulators are responsible for ensuring safe and reliable service to core customers. If the LDC is responsible only for transporting gas for others, a question arises about who should provide gas in the event of a shortfall. Meeting peak-day requirements is one of the most expensive services offered by LDCs. If customers buy relatively inexpensive supplies from third-party marketers, who then fail to perform during peak demand periods, should the LDC still be held to be the gas provider of last resort? If so, how should the LDC be compensated?

Many PUCs are settling this problem by simply providing customer choice and invoking “buyer beware” for those who choose to leave the LDC. Other PUCs are mandating that certain customers buy backup service from the LDC in addition to services they obtain from marketers. In general, PUCs will probably abandon traditional obligation to serve for sales service, but retain it for LDC delivery service to assure reliability of service.

## Transition Costs

Regulators must address the incidence of costs resulting from the transition to a competitive retail market. In the wholesale market, the Federal Energy Regulatory Commission allowed interstate pipeline companies to pass transition costs to both core and non-core customers in the form of higher transportation tariffs. State commissions generally allowed LDCs to pass these costs along to their customers. However, under threat of bypass by industrial and large commercial customers, LDCs probably passed transition costs disproportionately to captive residential and small commercial customers, while also absorbing some costs.

LDCs have incurred their own transition costs associated with contractual obligations for transmission capacity that is no longer required, supply contracts that are no longer needed, and overbuilding of distribution capacity to serve a market that has either disappeared or failed to materialize. As with the transition costs incurred from interstate pipeline companies, State regulators must decide how LDCs’ transition costs should be allocated between LDC shareholders and customers. One solution to lessen the impact to these parties is for LDCs to turn back long-haul pipeline capacity rights not required to serve core customers to the pipeline companies (see Chapter 2).

The precise path taken by regulators towards a more competitive retail gas industry will vary by State and market conditions. The economics of building a retail distribution system to serve small commercial and residential customers probably precludes a competitive market developing for the local transportation of gas. Therefore, States would probably want to continue to regulate this segment of the industry to ensure service and rates to remaining customers. However, should LDCs abandon their merchant role as interstate pipeline companies have at the wholesale level, even the smallest consumers could potentially gain access to competitively priced natural gas supplies.

## Recent State Actions to Unbundle Retail Gas Markets

Most States currently allow unbundled services only to large customers. Some States, for example Iowa, unbundled services to residential customers in the mid-1980’s. Although in Iowa’s case, a lack of marketer interest has hindered the development of effective competition. Many States are asking LDCs to propose plans to offer unbundled service to smaller customers, while others have begun implementing unbundling proposals. For illustrative purposes, highlights of programs are described for New York, Maryland, and California. New York was among the first States to restructure LDC operations down to the residential level; on May 1, 1996, Brooklyn Union became the first LDC to give all customers the option to purchase natural gas from third-party sources. Maryland approved small customer unbundling experiments by the largest LDCs, beginning in November 1996. California was chosen for its market size and the fact that as early as 1991, it offered small and medium-sized customers entry to competitive gas markets through its Core Aggregation Transportation (CAT) program. Table 13 summarizes recent actions taken in other States.

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<sup>119</sup>Brooklyn Union Press Release (May 2, 1996).

**Table 13. Unbundling Actions by Selected State Public Utility Commissions**

State	Significant Actions	Date	Class of Customers Affected
California	Defined core and non-core market segments. Non-core segment allowed to buy unbundled supply and transportation.	1986	Industrial and large commercial
	Statewide capacity brokering plan for allocation of interstate capacity to non-core customers.	11/6/91	Industrial and large commercial
	Adopted rules for a permanent core customer aggregation program that allows small customers to pool together to receive transportation-only service. Pacific Gas & Electric should unbundle its services by 1/1/1998 and Southern California gas and San Diego Gas & Electric should offer unbundled services by 1/1/1999.	7/19/95	Small commercial
Connecticut	Required firm transport service to commercial customers.	1994	Commercial
	Order addressing cost-of-service methodologies and proposed tariffs for unbundled services. Small customers will not need real-time metering and will be able to choose the level of backup service.	11/2/95	All
Georgia	Public Service Commission issued a policy statement including: unbundling of interruptible service to non-core customers and the establishment of a pilot program for unbundled service to core customers; gradual movement to incentive rates; transition costs should be charged to parties benefiting the most from competition; no cross subsidies between utilities and their marketing affiliates.	5/31/96	Industrial and commercial
Illinois	Northern Illinois Gas, Peoples Gas Light and Coke, MidAmerican Energy Corporation, and North Shore Gas currently offer transportation service.	--	Industrial and commercial
Indiana	Indiana Gas Company proposal to provide unbundled services to some customers.	--	Industrial and large and mid-sized commercial
	Aggregation program for other customers under consideration.		Small commercial
Iowa	Iowa's PUC adopted small customer unbundling in 1986. However, until recently the requirement for telemetering and standby service and a lack of marketers willing to enter the market have prevented effective choice.	1986	Residential
	MidAmerican Energy Corporation conducted a small residential pilot program to unbundle service to all customers.	11/1/95	
Maine	Unbundling proposal by Northern Utilities under consideration by the regulatory commission.	--	Industrial and commercial
Maryland	Maryland Public Service Commission recommendation to unbundle retail sale service into supply and delivery services for all customers.	11/15/94	Residential and small commercial
	Baltimore Gas and Electric's unbundling filings approved.	8/2/95	All
Massachusetts	PUC approved proposal for a pilot residential unbundling program before the 1996 heating season.	12/31/95	Residential
Michigan	PUC requested comments from LDCs concerning the implementation of small customer unbundling, specifically offering transportation-only service.	2/12/96	To be determined
Minnesota	Minnegasco filed a proposal to unbundle services. Highlights: <ul style="list-style-type: none"> <li>• Unbundles long-haul pipeline transportation from local delivery</li> <li>• Establishes a 3-year experiment for the aggregation of small transportation customers</li> <li>• In case of a shortage, Minnegasco will make efforts to supply gas to transportation only customers at special rates.</li> </ul>	4/14/95	Industrial and large and small commercial

**Table 13. Unbundling Actions by Selected State Public Utility Commissions (Continued)**

State	Significant Actions	Date	Class of Customers Affected
Montana	PUC ordered Montana-Dakota utilities to file a gas-unbundling plan for all customers by July 1, 1996.	--	To be determined
Nebraska	LDCs not regulated by the State; all are local municipalities.	--	--
Nevada	Unbundling activity has focused on workshops and issue statements.	--	--
New Hampshire	Transportation offered to customers who consume more than 10,000 therms a month.	--	All
New Jersey	PUC issued guidelines.	1/20/93	Nonresidential
	LDCs required to file plans to unbundle rates to nonresidential customers.	3/29/95	
New Mexico	Transmission, distribution, storage, standby service, and emergency gas service are fully unbundled.	1984	All
New York	New York Public Service Commission (NYPSC) issued general guidelines and asked the largest utilities to file unbundling plans.	12/20/94	Non-core customers (industrial and large commercial)
	NYPSC approved nine plans.	3/95	
	Brooklyn Union will offer transportation-only service to commercial and residential customers.	5/1/96	Small commercial and residential
Ohio	Approved a transportation-only rate for schools served by East Ohio Gas.	11/3/94	Small commercial and residential
	Issued a policy statement that expects large LDCs to formulate and implement small commercial and residential programs.	12/1/94	
Oklahoma	Always allowed transportation-only service.	--	Industrial and commercial
Pennsylvania	Equitable Gas filed plans with the Pennsylvania PUC to provide customers in the Pleasant Hills area access to alternate gas suppliers.	Fall 1995	Small commercial and residential. Minimum volume requirement of 5,000 Mcf per year. No more than 10 customers can aggregate to overcome the minimum requirement threshold.
Texas	Always allowed transportation-only service.	--	Industrial and commercial
Washington	Unbundled sales, transportation, storage, and standby service have been in place since 1989.	1989	--
Wisconsin	Commission endorsed unbundling basic distribution, competitive supply, balancing, peak-day supply, and enhanced services (demand-side management, social programs, etc.).  Wisconsin Gas Company began a pilot program of small customer unbundling.	--	All
Wyoming	Scheduled a conference on unbundling.	6/6/95	Proposes unbundled rates only for non-core customers (industrial and large commercial)
	Wyoming Public Service Commission approved KN Energy's unbundled service program for its core customers. Under the proposal, only gas sales would be opened to competition. All other services would continue to be provided by KN Energy.	2/96	All

-- = Not applicable. PUC = Public utility commission. LDC = Local distribution company. Mcf = Thousand cubic feet.  
Source: Energy Information Administration, Office of Oil and Gas, derived from various industry news sources.

Each of the three States is a prime example of how some PUCs are promoting choices for residential customers. The three share many characteristics but also some differences. All PUCs must grapple with the fundamental question of how to offer consumers the greatest choice, and at the same time maintain reasonable rates and ensure service quality. To reach these objectives, PUCs may take different routes. Some may seek to maintain service quality, perhaps at the cost of higher rates. For example, New York requires small customers to take backup service from the LDC regardless of which marketer they obtain gas from. Maryland requires commercial customers who consume less than 2 million cubic feet per year to pay a flat fee for standby service. Other PUCs may seek to reduce rates as much as possible, in the belief that a competitive market will ensure service quality. California does not require small customers to take backup service, believing that the market will weed out marketers unable to perform during peak demand periods.

## California

California was one of the first States to unbundle gas sales from transportation for certain customer classes. In 1986, the California Public Utilities Commission (CPUC) separated LDC customers into “core” and “non-core” categories. Core customers were defined as residential and commercial customers, while the non-core market was defined as large industrial and electric generating customers with alternative fuel burning capability. Subsequently these definitions were redefined based on customer demand levels, with core customers defined as consuming less than 250,000 therms per year. Initially, non-core customers were given the option to purchase unbundled LDC sales and transportation service, but by 1990 non-core customers were required to acquire their own gas from parties other than LDCs.

- **Unbundled Service.** On November 6, 1991, California adopted a Statewide “capacity brokering” plan for LDCs to broker their excess pipeline capacity not required to provide gas to core customers.<sup>120</sup> LDCs have proposed to unbundle services such as gas transmission, storage, and distribution, with separate rates charged for each service.
- **Aggregation of Core Customers.** In July 1995, an experimental core aggregation program, designed to allow smaller volume customers to benefit from unbundled sales and transportation, was made permanent.<sup>121</sup> Core customers may elect to take traditional sales service from their LDC if they wish.

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<sup>120</sup>California Public Utility Commission, Decision No. 91-11-025.

<sup>121</sup>California Public Utility Commission, Decision No. 95-07-058.

- **Corporate Structure.** LDCs that offer unbundled services have not been required, thus far, to separate out or spin off their sales divisions.
- **Obligation to Serve.** Although unbundling of core services has reduced the LDC’s obligation to serve and could therefore reduce service quality, the California Public Utility Commission believes that the benefits of greater consumer choice will outweigh the cost of any diminished service.
- **Transition Costs.** Stranded costs associated with turning back unneeded interstate capacity will be allocated to all customers (core and non-core) on an equal basis (cents per therm consumed).
- **Rates.** California has unbundled interstate and intrastate transportation rates. Firm transportation service rates for non-core customers are calculated at the fully allocated cost of service, while rates for interruptible service can be discounted.

## New York

The New York Public Service Commission adopted generic natural gas restructuring policies through orders issued on December 20, 1994, and August 11, 1995.<sup>122</sup> The orders provide guidelines about:

- **Unbundled Service.** LDCs must provide firm customers access to pipeline capacity, storage, and receipt points. LDCs must market their surplus gas and capacity. They may retain 15 percent of the earnings, but must pay 85 percent to core customers.
- **Aggregation of Core Customers.** Core customers are defined as firm sales or transportation customers without access to alternative fuels. Third-party marketers can aggregate small customer loads to meet minimum volume requirements for receiving unbundled service.
- **Corporate Structure.** Marketing by an LDC subsidiary is allowed, however, the marketing subsidiary and the LDC must have separate operations, and there can be no direct transactions between an LDC and its affiliate. Brooklyn Union recently filed a petition with the New York Public Service Commission to organize its utility operations and those of its subsidiaries into a holding company. Brooklyn Union has announced plans to

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<sup>122</sup>New York Public Service Commission, Opinion No. 94-26, “Opinion and Order Establishing Regulatory Policies and Guidelines for Natural Gas Distributors.”



expand gas marketing and energy management services to large-volume customers, potentially through new subsidiaries to be incorporated separately and owned by the holding company.

- **Obligation to Serve.** LDCs are not obligated to serve the non-core market. However, they must offer non-core customers standby or backup service at market-based rates. “Human needs” customers are required to take backup service from their LDC.
- **Transition Costs.** LDCs can fully recover transition costs from sales and transportation customers. Unrecovered pipeline purchased gas costs should be assigned solely to the sales customers of the LDCs and recovered through their gas cost adjustments. Transportation customers who pay directly for firm pipeline capacity were exempted from transition cost recovery. Stranded investment and gas supply realignment costs would be allocated to both sales and transportation customers.<sup>123</sup>
- **Rates.** Customers can be charged different rates depending on competitive conditions and the value attached to gas service by individual customer classes. LDCs can even sell gas to some customers at less than cost, as long as the average sales price will exceed the commodity cost over the course of the contract. Non-core customers can be charged market-based rates, although they are subject to a cap. Also, LDCs can earn profits up to a limit in excess of their allowed rate of return

In March 1995, the New York Public Service Commission approved unbundling plans for the nine largest gas and electric utilities. Over a year later (May 1, 1996), Brooklyn Union began the implementation of a program that allows customers using more than 35,000 therms annually to buy unbundled transportation-only service. Marketers will be able to combine small residential and commercial customers to meet this minimum requirement. Brooklyn Union will still retain responsibility for billing, meter reading, and other customer services. Most small customers also will be required to receive standby service from Brooklyn Union.

## Maryland

On January 10, 1995, the Maryland Public Service Commission (MPSC) issued Order 71703, which called for phased unbundling. Phase I required three major utilities in Maryland to make plans by November 1995 to offer

unbundled transportation and sales to large volume customers.<sup>124</sup> Phase II required utilities to have plans in place by November 1996 to offer unbundled services to small volume customers. The three utilities already offered unbundled service options to their largest customers. The MPSC’s ultimate aim is to replace retail sales service with unbundled sales and delivery service and to eliminate barriers such as minimum-take requirements, metering, and obligation to serve.

MPSC has accepted a pilot plan from Baltimore Gas and Electric’s (BG&E) to offer services on an unbundled basis. Under BG&E’s plan:

- BG&E’s interstate pipeline capacity rights will be assigned to its customers under 1-year terms.
- Nonstandby transportation service will be offered to customers such as small apartment complexes that contain three or more units served by a single meter.
- Comprehensive balancing service will be offered to transportation customers. This was initially priced at \$0.35 a therm. Customers who do not take the balancing service, and either under or overtake gas, will be charged penalties.
- A third-party billing system will be made available to third-party marketers.

To prevent preferential treatment of its affiliates, BG&E will restructure its operations to establish clear delineations between its transportation, sales, and marketing affiliates. BG&E will also contract out services such as balancing, storage, and risk management services.

On November 1, 1995, Columbia Gas of Maryland began offering transportation-only service to any industrial or commercial customer that burned less than 2 million cubic feet per year. To meet its obligation to serve, Columbia requires the smaller customers to purchase standby gas service at a flat fee of \$21 per month for commercial customers and \$223 per month for industrial customers. To reflect the new services offered, Columbia established new procedures for curtailing customers in the event of a gas or capacity shortage. Customers with access to alternative fuels would be curtailed first, followed by manufacturers, and finally commercial customers. Columbia also established new charges to customers who take more than their annual

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<sup>123</sup>Stranded investments represent assets previously used to provide bundled sales service. Gas supply realignment costs result from the LDC reforming or buying out existing supply contracts or continuing to perform under certain contracts.

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<sup>124</sup>Baltimore Gas and Electric, Columbia Gas, and Washington Gas Companies.

contracted volumes, which allows Columbia gas to recover any penalties assessed by its affiliate Columbia Gas Transmission.

On September 1, 1995, Washington Gas began offering interruptible customers transportation-only service with minimum annual requirements of 40,000 therms. Previously the minimum requirement was 80,000 therms. On November 1, 1995, the company expanded firm transportation to firm industrial, commercial, and group-metered apartment customers with minimum annual requirements of 40,000 therms.

Washington Gas also implemented a 2-year pilot program that assigned capacity on the utility's existing interstate transportation capacity. Under the program any industrial, commercial, and group metered apartment customer would be assigned a portion of Washington Gas' firm interstate pipeline capacity to transport gas purchased from a third-party supplier. Small customers would be able to secure their own gas supplies without having to obtain pipeline capacity.

Washington Gas is also undertaking efforts to educate small customers about unbundling, the choices it offers them, and new billing procedures. This is in anticipation of November 1996, when residential customers will be allowed to purchase gas from a choice of nine third-party marketers, including Washington Gas' marketing arm.

## The Impact on Consumers

As retail unbundling reaches smaller commercial and residential consumers, their customary way of purchasing gas will be radically changed. They will no longer be limited to taking gas services from their local distribution company, but will be able to choose service from the supplier that best meets their needs at the lowest price.

It is very unlikely that smaller customers would take fully unbundled service and contract for separate supply, long-haul transportation, citygate transmission, storage, standby service, and balancing, because the transaction costs of contracting for individual services would probably be higher than any savings. Instead, intermediate marketers will rebundle these services and offer them to consumers as a competitively priced package. The new retail gas market will have many similarities to current phone service. Consumers will use local distributors to deliver gas much the same as their local telephone company delivers long-distance service from long-distance phone carriers, such as AT&T, MCI, or Sprint.

Some small commercial consumers are already benefiting from retail unbundling and deregulation. The Archdiocese of Chicago estimates that it has saved \$8 million over the past 5 years by buying gas from the marketing arm of Enron

Corporation.<sup>125</sup> However, some consumers may be exposed to more risk than they are comfortable with. LDCs provide gas at fairly predictable prices, evening out seasonal and daily price fluctuations. Some marketers are offering gas indexed to the price of gas in the commodity markets. Others are offering a variety of programs to insulate consumers from some types of market risks. But all these hedging services are available only to customers who are willing to pay additional fees. When daily prices spike, as they did on February 2 to \$15.50 per thousand cubic feet, the full cost of using gas that day could be passed along to the consumer.<sup>126</sup> Consumers will need to evaluate their own risk tolerance before buying a particular service.

Unbundled service to residential customers is generally now available only on a limited basis as part of experimental programs instituted by State regulators or LDCs. For example, on November 1, 1995, the town of Rock Valley, Iowa became one of the first communities in the United States to be offered a choice of gas suppliers. Under a pilot project, MidAmerican Energy (the LDC serving Rock Valley) offered approximately 875 residential and 80 commercial and industrial customers a choice of three marketers. The marketers were chosen by MidAmerican Energy from a pool of more than 50 applicants based on criteria such as experience, corporate resources, and a willingness to meet MidAmerican's obligation to serve. Each marketer was required to sign up at least 50 customers or drop out of the program. Only two marketers remained after initial customer balloting. Both companies employed marketing techniques customary to other deregulated utility services, such as guaranteed monthly savings offered by long-distance telephone companies.

Rock Valley was considered ideal for the experiment since the town received real-time meters in 1990 as part of an energy efficiency test. A lack of expensive real-time metering systems to track consumption is perceived as a major roadblock to providing choice to residential customers elsewhere. Conventional meters track consumption, but real-time meters track consumption, the time it occurred, and associated prices. As part of the trial, MidAmerican Energy switched the marketers' nominations process from reliance on real-time metering to forecasted load levels. MidAmerican wanted to see whether suppliers could maintain service continuity through their own supplies or whether they fell back on MidAmerican's supplies during demand peaks. Also, if forecasting proved a reliable alternative to expensive real-time metering, a major hurdle to residential unbundling would

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<sup>125</sup>"Tired of Phone Wars? Get Ready for a Fight to Sell Natural Gas," *Wall Street Journal* (April 16, 1996).

<sup>126</sup>Pasha Publications, Inc., *Gas Daily* (February 2, 1996).

have been overcome. The test was a success and MidAmerican now relies on load forecasts rather than real time metering.

The Rock Valley experiment has shown that marketers will employ innovative methods to differentiate themselves to consumers. Recently announced mergers between large oil and gas producers and gas marketers (Chapter 1) suggests that in the near future gas could be marketed under such brand names as Chevron, Mobil, and Exxon.

To see how much consumers might save under retail unbundling, it is instructive to look to Canada, specifically the province of Ontario, where limited residential retail unbundling was implemented in 1987.

## The Canadian Experience with Retail Unbundling

Canada first began to experiment with consumer choice and market pricing for retail natural gas with the adoption of the Halloween Agreements in 1985.<sup>127</sup> The Canadian provinces of Ontario, Manitoba, and Quebec were among the first to develop plans that strongly promote retail unbundling for small customers. Other provinces, such as British Columbia, were more cautious and initially only unbundled services to larger industrial and commercial customers.

Canadian unbundling of services is very different from that currently proposed in the United States. Retail unbundling plans in the United States focus on the separation of LDC sales from distribution. In contrast, LDCs in Ontario were not required to exit from the sales side of their business. Rather, consumers contract with third-party marketers who arrange for gas supplies and interstate pipeline capacity and then sell the gas to the LDC for delivery to consumers. Consumers pay the LDC the usual price for gas service, however, savings are passed along to those who contract with marketers in the form of rebates that show up on their retail service bill. Under this market structure, the marketer receives a brokering fee for providing cheaper gas, the LDC maintains its overall sales levels, and those consumers taking part benefit from cheaper gas.<sup>128</sup>

In 1987, the Ontario Energy Board implemented open access and unbundled services to all customers, regardless of size. Using price as a criterion, the program in Ontario can be judged a success. In 1985, residential consumers in Ontario paid almost 20 percent more than the national average for natural gas. The premium fell steadily through the decade, and

by 1994 residential consumers paid only 9 percent more for natural gas.<sup>129</sup>

In terms of reliability and the obligation to serve, the results of retail unbundling have been somewhat mixed. The method adopted by Ontario worked as long as marketers could procure gas and transmission capacity at prices lower than those paid by LDCs under their customary long-term fixed price contracts. For most of the latter half of the 1980's, Canadian wellhead prices were below the contract price paid by LDCs. However, this market arrangement ran into some problems in 1993 when the wellhead price of gas rose above the long-term contract price, causing some marketers to renege on contracts and to shift customers back to the LDC.

To address some of these issues, the Ontario Energy Board is considering a complete separation of LDC distribution and sales roles. If this were to happen, LDC unbundling in Canada would become more like the proposals currently under consideration in the United States. Some Canadian marketers and end users believe that the adoption of a fully unbundled open access market in Canada would result in even further savings to consumers.

## Future Challenges

State efforts to provide smaller residential and commercial customers service choice by providing access to unbundled gas services are gaining momentum. Many States are actively examining or implementing some form of retail unbundling which will give smaller LDC customers the same access to competitive gas markets already enjoyed by their larger customers.

LDCs originally began offering unbundled service to retain large industrial and electric utility customers in the face of stiff competition from interstate pipeline companies. End-use prices to different customer classes provide evidence that small customers received significantly fewer benefits from the transition of the wholesale market to competition. Between 1990 and 1995, prices to residential customers appear to have fallen 10 percent from \$6.67 per thousand cubic feet (1995 dollars) to \$6.06 per thousand cubic feet. In contrast, over the same period, prices to industrial customers appeared to fall in excess of 24 percent, from \$3.37 per thousand cubic feet to \$2.71 per thousand cubic feet (Table 11, Chapter 5).

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<sup>127</sup>The Agreement on Natural Gas Markets and Prices was signed by the governments of Canada and its provinces on October 31, 1985.

<sup>128</sup>LDCs traditionally pass the cost of procuring gas through to end users.

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<sup>129</sup>K.W. Costello, and J.R. Lemon, The National Regulatory Research Institute, *Unbundling the Retail Gas Market: Current Activities and Guidance for Serving Residential and Small Commercial Customers* (May 1996), p. 21.

State regulators and consumer groups want to extend the benefits of retail competition to smaller LDC customers. However, they face many challenges along the way, including appropriate pricing of services, what services should be unbundled, service reliability, corporate structure, and the allocation of costs associated with the transition to the competitive market. Also, although aggregate savings from unbundling and greater competition could be considerable, in terms of the price paid for gas by small consumers, questions about the magnitude of the saving. For example, to satisfy the obligation to provide secure supplies on demand, many PUCs are requiring small customers to continue to take backup service from their LDC. The requirement to take this

expensive service could offset any savings from unbundling and prevent the formation of a competitive market.

As unbundling proceeds, transition costs will continue to accumulate. Some LDCs may find themselves paying for long-term firm interstate pipeline capacity that they no longer need. How these costs are apportioned among interstate pipelines companies, LDC shareholders, and the different classes of LDC customers will significantly affect the savings to individual stakeholders. However, many in the industry believe that the long-term benefits of retail competition will far outweigh any short-term costs incurred along the way.