

Natural Gas Unbundling in Kentucky:

Exploring the Next Step Toward Customer Choice

Executive Summary

The report presents a summary of informal meetings the Commissioners and Staff held with various groups and individuals (stakeholders) earlier this year on the status of the natural gas industry in Kentucky and what the Commission's future regulatory role should be. Also discussed are several key issues central to answering the questions: Should residential gas customers be able to choose their supplier? And, if so, how should such a program be designed and implemented to assure safe and reliable gas delivery and service? The report concludes with four possible options the Commission could consider for the immediate future, including the status quo, which would retain the local gas distribution utility as the only supplier of gas for residential customers.

Unbundling is the term used to describe the process through which a utility offers and prices its services individually, instead of packaging services (such as gas supply and transportation) for a set price. In the mid-1980s the Commission ordered all operators of jurisdictional intrastate gas pipelines to provide transportation on their pipelines to other parties upon request. This effectively allowed most non-residential gas customers connected to such pipelines to arrange for their own gas supplies instead of purchasing gas from the local utility, thereby using the local utility's pipelines only for transportation. Since then, these customers have had some choice among services, and have been able to determine the specific price for each service.

During the past few years the issue of residential gas customers being provided the same type of choice has come to the forefront in many of the states. At this point in time residential pilot programs have been implemented in several states; Columbia Gas of Ohio's program in Toledo represents one of the largest - 170,000 residential and small commercial customers are eligible. Also, legislation has been passed or introduced in several states requiring gas utilities to unbundle their rates and services within a prescribed timeframe as certain market conditions become present. Such a process would include residential and small commercial transportation, but can also lead to alternative forms of regulation, i.e., less regulation.

Natural Gas Unbundling in Kentucky: Exploring the Next Step Toward Customer Choice summarizes the situation in Kentucky regarding where unbundling is now; where, according to others it should (or should not) proceed; and suggests possible scenarios for Commission action. The first part presents the comments made by local gas distribution utility (LDCs) representatives; marketing companies (competitors to the utilities); the Kentucky Industrial Utility Customers (KIUC); the Attorney General's Office and Legislative Research Commission Staff; and representatives of residential customers and energy conservation groups. Generally speaking, the LDCs appear ready to implement pilot

programs for residential and small commercial customer choice; some want less regulation along with it, but one LDC is very skeptical about the reason and need for residential customer choice. Marketers are strongly in favor of residential choice, in part to get their foot in the door and offer customers other services/items. KIUC said its clients are already benefitting from unbundled service. The remaining groups and individuals are unclear about the perceived savings; concerned about maintaining reliability of service to residential customers with such programs; and dubious about placing utilities under a more relaxed regulatory structure.

The second part of the report discusses several issues which must be addressed before residential customer choice should proceed, so that residential customers are at least no worse off with alternate suppliers. These issues include: reliability of delivery; stranded costs; supplier of last resort (if the alternate supplier fails to deliver); aggregation of supplies; and the impact of choice on the collection of local and state taxes. With regard to taxes it is important to note that as customers move to alternate suppliers, often the gas is purchased out-of-state and the transaction is not assessed sales tax as the local utility's sales presently are. Local property tax collections could also be affected if the utility no longer makes the same amount of sales, and its overall revenue stream is reduced.

The final part offers four options for consideration. The status quo approach would keep things pretty much as they are, although incentive programs should be considered in conjunction with maintaining gas regulation as it is. Implementation of pilot programs, the second option, would encourage utilities (the five large LDCs) to file for Commission approval of programs individually tailored for each utility's unique operations. These programs would be submitted within guidelines issued by the Commission, to help ensure that many of the issues presented in the preceding part are addressed. The third option is broader unbundling, and would be similar to the legislative approach taken in Georgia and elsewhere and under consideration in Pennsylvania, wherein gas distribution utilities are required to unbundle by a date certain, once the state commission determines that market competition exists. Georgia ties this action with placing the utility under an alternative form of regulation, but leaves it up to a utility to decide when to file. The Pennsylvania approach requires the utility to file an unbundling application with the state commission by the end of this year. Both approaches can result in LDCs eliminating its merchant function (no more gas sales service).

Commission-approved incentive programs for gas LDCs, instead of unbundling or residential transportation, is the fourth option presented. It is suggested that placing a utility's operations under incentives, such as price flexibility (caps) and less earnings restrictions, may accomplish the same objectives for both the company and its ratepayers as unbundling.

A public meeting at the Holiday Inn in Frankfort, August 22nd from 1:00 - 4:00 is scheduled to allow interested parties to comment on the report.

**NATURAL GAS UNBUNDLING
IN KENTUCKY:**

**EXPLORING THE NEXT STEP
TOWARD CUSTOMER CHOICE**

KENTUCKY PUBLIC SERVICE COMMISSION

**Ralph E. Dennis
Staff Assistant to the Commissioners**

JULY 11, 1997

TABLE OF CONTENTS

PREFACE.....	ii
INTRODUCTION AND OVERVIEW.....	1
SUMMARY OF INFORMAL DISCUSSIONS.....	5
Local Distribution Companies.....	6
Affiliated Marketers.....	8
Independent Marketers.....	8
Residential Groups.....	9
Industrial/Large Volume Gas Users.....	10
Attorney General's Office.....	11
Legislative Research Commission.....	11
Energy Conservation Groups.....	12
SELECTED ISSUES.....	13
Reliability in an Unbundled Market.....	13
Stranded Costs.....	14
Supplier of Last Resort.....	16
Universal Service and Disconnections.....	18
Statutory and Regulatory Authority.....	20
Aggregation of Supplies.....	23
The Issue of Taxes.....	24
Determining Market Power.....	28
POSSIBLE NEXT STEPS.....	30
Status Quo.....	30
Pilot Residential Programs.....	30
Broad Unbundling.....	31
Incentive Programs.....	31
CONCLUSION.....	33
APPENDIX: RESPONSE SHEET	

PREFACE

The natural gas industry in the United States has undergone significant change since the 1970s. The Natural Gas Policy Act of 1978 (NGPA) began the deregulation of wellhead price controls for most gas produced, a process completed by the Wellhead Decontrol Act of 1989. With the Federal Energy Regulatory Commission's (FERC) Orders in Case Nos. 436 and 636, interstate pipelines were: first, required to become open access and transport gas upon request for other parties; and, later, removed completely from the merchant function. These changes have helped create a competitive, spot market for gas prices, and allowed industrial and large commercial customers choices - to choose their supplier of gas and the services they want. The remaining segment of the industry to be addressed is the residential and small commercial market. This is the next step.

Natural Gas Unbundling in Kentucky: Exploring the Next Step is a discussion primarily on residential/small commercial unbundling. It asks whether, why, how and how far to unbundle? And, asks as well, many other related questions. This paper presents the various issues and process related to a review of further gas unbundling in Kentucky.

First, an overview and introduction explains the process used to gather some of the information presented. A summary then describes the informal meetings and discussions that Commissioners and Staff had with numerous stakeholders to the various issues involved. The third general section, while not all inclusive, discusses selected issues which are principal to any serious contemplation of unbundling; in some cases, there are initial conclusions drawn which are presented for further comment. In conclusion, some possible "next steps" are listed: the status quo approach, which is not as contrary as it sounds; encourage and approve pilot residential/small commercial transportation programs; propose, support full gas unbundling of the local distribution gas companies (LDCs); or suggest and approve incentive programs for gas utilities. Some combination is certainly possible and maybe even preferable.

Following issuance of this report the Commission will schedule a public meeting open to all interested parties, but especially those participants in the informal discussions. The purpose will be to allow comment on this report, and on what role the Commission should play as the industry moves forward; and, to provide an opportunity to offer additional suggestions and insight on the natural gas industry in Kentucky.

Any respondents to this report, or commenters at the public meeting, are encouraged to include specific remarks on whether unbundling natural gas LDCs in Kentucky is in the public interest; and, how a residential gas transportation program will benefit the customer, including the manner and pace at which it should proceed.

Responses should be submitted to: Ralph E. Dennis, Staff Assistant, Public Service Commission, P. O. Box 615, Frankfort, Kentucky 40602. The telephone number is 502-564-3940, and the e-mail address is: redennis@mail.state.ky.us. This report is available through the Kentucky Public Service Commission's website, which is: <http://www.state.ky.us/agencies/psc/pschome.htm>.

INTRODUCTION AND OVERVIEW

In 1987¹ the Commission took a major step toward unbundling Kentucky's natural gas market by requiring intrastate pipeline operators to file tariffs, which opened up their pipelines (both transmission and distribution) for transportation of gas by other parties. Earlier, actions more narrowly focused had been approved by the Commission, such as flexible rates for some services, allowing LDCs to compete against alternate fuels (then defined as #2 fuel oil, principally); and a regulation allowing LDCs to request approval of special contracts, permitting a rate to be charged to a specific customer different from the tariffed rate.

Administrative Case No. 297 (Case 297) included three major policy directives: a Commission decision not to regulate marketers; creation of the term "transporting utility";² and the requirement that each of the five large gas LDCs³ file open access transportation tariffs. At present, large volume gas transportation customers of these utilities are able to acquire firm or interruptible service upon request. Standby service is offered by most of these LDCs. Storage service on one LDC's system (in-state storage) is available now, and may be available on a second in the near future.

These steps, and most of the policies established in Case 297, only directly affected non-residential customers, industrial and large commercial customers who qualify for the transportation services offered by the LDCs in their existing tariffs. Nonetheless,

¹ Administrative Case No. 297, An Investigation of the Impact of Federal Policy on Natural Gas to Kentucky Consumers and Suppliers, Final Order entered May 27, 1987; Order on rehearing entered October 23, 1987; and Order upon reopening entered August 18, 1993, respectively.

² A transporting utility is a utility which owns facility (a pipeline and any related appurtenances) but does not own the gas which is transported through its pipeline. Transporting utilities must receive Commission approval prior to constructing most facilities, and must have a tariff on file with rates and services. Except when the customer is an LDC, a transporting utility's rate has been accepted by the Commission as filed; sometimes, such rates are filed by contract.

³ The five large gas LDCs (in order of existing number of customers) are: Louisville Gas and Electric Company; Western Kentucky Gas Company; Columbia Gas Company; Union Light, Heat and Power Company, a subsidiary of Cincinnati Gas and Electric Company; and Delta Natural Gas Company.

these actions by the Commission, and its subsequent review of related issues in Administrative Case No. 346⁴ (Case 346), provided a review and analysis of the gas industry in Kentucky at those points in time.

Much has happened since the conclusion of Case 346, especially in the residential and small commercial area. Residential gas transportation pilot programs are underway in numerous states. Most recently, in January 1997 the Ohio Public Utilities Commission (Ohio PUC) approved the Columbia Gas of Ohio's Customer Choice program, which began offering 170,000 residential and small commercial customers in Toledo a choice of gas suppliers. On July 2, 1997 the Ohio PUC approved Cinergy's pilot program for residential and small commercial customers in Cinergy's ten county gas service area, which expects to be providing alternative supplier choices by the 1997-98 heating season. On the legislative front, several states have passed legislation relating to alternative regulation and customer choice. Ohio, in 1996, and Georgia in April 1997, both signed into law establishing customer choice as state policy and allowing LDCs to file for an alternative form regulation.

In addition, each of the five large gas LDCs in Kentucky has nonregulated gas marketing affiliates⁵, although some are not presently operating in Kentucky. Most are active providing non-traditional utility services to customers in their service areas, and direct competition with HVAC/Plumbing contractors is now a reality.

In order to respond to the changing environment in which gas LDCs find themselves today, and to clarify the role of the Commission as the gas industry continues to evolve, the Commission and Staff conducted a series of informal meetings with representatives of the various stakeholder groups⁶ to discuss where the gas industry in Kentucky is today; and where it should be heading. In trying to identify that future, the question is what action, if any, should the Commission take to assure all Kentucky ratepayers continue to

⁴ Administrative Case No. 346, An Investigation of the Impact of the Federal Energy Regulatory Commission's Order 636 on Kentucky Consumers and Suppliers of Natural Gas, Final Order entered December 22, 1993.

⁵ The term "affiliate" is used in a general sense. In some cases the LDC and the gas marketing company are actually subsidiaries of the same holding company, not directly affiliates of each other.

⁶ Meetings were conducted individually with each of the five large LDCs; the Attorney General's office (AG); the Legislative Research Commission (LRC) Staff ; and Kentucky Industrial Utility Customers (KIUC). All other meetings were held individually with stakeholder groups: marketing affiliates of the large LDCs; residential customers; small LDCs; and energy conservation representatives.

receive safe and reliable gas service at fair, just and reasonable rates, while at the same time providing the proverbial level playing field to all participants who wish to play?

Another purpose of the meetings was to solicit everyone's thoughts on whether to open up the residential gas market to supplier choice, and the various issues involved with such service (including the purpose and need for a pilot program, and how one should be designed and implemented). The discussions, however, were also much broader and more inclusive of other issues, including: how the review of an LDC's gas costs should be done; the value of incentive programs and regulations, particularly in lieu of residential transportation or other unbundling action; incentive regulation v. unbundling; and guidelines for affiliate relationships.

The results of these meetings produced more questions than answers. Consequently, additional comment and suggestions would be beneficial on whether further natural gas unbundling in Kentucky is in the public interest. Certainly, economic theory suggests there are potential benefits to residential ratepayers if competition enters the residential market. Experience in other markets also appears to bear this out. But one must be careful not to mix apples and oranges, and to recognize differences between industries.

Will lower gas costs result if a residential customer is able to choose suppliers? Are lower gas costs the only reason to unbundle? If not, is the issue of customer choice sufficient to warrant unbundling? Will customer choice add an additional layer of administrative cost? Is the only benefit to residential unbundling that of opening the market to suppliers who wish to solicit residential customers to buy products other than energy? Will the delivery of gas to residential customers be as reliable as it is today? Are steps necessary to assure that such supplies reach the customers when they most need it?

This report utilizes the following definition for the term "unbundling":⁷

(1) the identification of those elements of LDC service that can be provided by alternative (competitive) suppliers; and

(2) the development and implementation of regulatory and operating terms and conditions that would permit alternative sellers to function in a competitive manner to all users.

Some of the objectives of gas unbundling are:

(1) supply efficiency as lower cost suppliers can enter the market;

⁷ Most of this definition is from the NARUC Gas Subcommittee draft report LDC UNBUNDLING: PROBLEMS AND OPPORTUNITY, August 8, 1996.

- (2) improved incentives for suppliers and users of gas;
- (3) greater customer choice from increased service options; and
- (4) technology improvements, which are generally the product of a competitive environment.

SUMMARY OF INFORMAL DISCUSSIONS

Meetings were held with both large and small gas LDCs; natural gas marketers, both independent⁸ and those affiliated with a Kentucky⁹ utility; separately, with representatives of residential/low-income customers¹⁰ and industrial/large volume gas customers;¹¹ staff from the AG's office; the LRC Staff; and the Kentucky Division of Energy (DOE) representing energy conservation interests. A meeting with Kentucky gas producers was cancelled and unable to be rescheduled within the timeframe, but the rest of this forum will allow their comments to be presented.

Additionally, two of the Commission Staff's meetings on electric restructuring issues included some discussion of gas unbundling: meetings, separately, with members of the Joint Interim Committee on Energy; and the Kentucky Retail Federation, a representative of both small and large commercial businesses.

The following is a summary of the discussions which took place by group; first, the LDCs; then, the marketers, by sub-group; and, finally, the remaining interests separately. This summary is not meant to be all-inclusive of every point raised; some are further addressed elsewhere in this report. Some of the issues more often on the table were pilot programs, and related issues of the LDC's obligation to serve, the supplier of last resort, participation requirements and non-performance by suppliers; maintaining the collection

⁸ The independent marketers invited were: Alliance Energy Services; Beacon Energy; CMS Gas; Cenerprise; Commonwealth Energy Services; Gasco; Sirius Energy; and Stand Energy. The term "independent" means none of these companies is affiliated with a Kentucky-located local gas distribution utility.

⁹ Each of the five large gas utilities has a gas marketing affiliate: LG&E Natural, LG&E; Columbia Energy Services, Columbia Gas; NRG, Western; Cinergy Resources, ULH&P; and Delta Resources and Delgasco, Delta. Currently, LG&E does not market in Kentucky; NRG is presently not active as a marketer.

¹⁰ Representatives of the following groups were invited: both the Louisville and Northern Kentucky Legal Aid Offices; POWER; Metro Human Needs Alliance; Project Warm; Kentucky Association of Community Action Agencies; and Kentuckians for the Commonwealth.

¹¹ Kentucky Industrial Utility Customers (KIUC), which represents numerous large volume gas customers.

of local and state taxes under unbundling; stranded costs and pipeline capacity; and statutory/regulatory issues.

This is meant to represent only a factual summation of the comments made during the discussions which took place.

Local Distribution Companies

The discussions with the five large LDCs focused to a large extent on pilot programs - how various ones have been designed and implemented; the status of gas marketers; and future unbundling in Kentucky. All of these utilities have been monitoring residential/small commercial transportation pilots underway in other states, and one has sister companies involved in pilots in Maryland, Ohio and Pennsylvania. The value of implementing pilots in Kentucky, as compared to broader unbundling, was questioned by some due to the number of pilots already in place and what has already been learned from them.

Each one wonders how much savings in gas cost should really be expected if residential customers are able to choose their own suppliers; most estimated little, if any, probably no more than 5% or so. Most, however, seem to believe residential choice is inevitable and, even if the difference in cost is minimal, that choice itself may be sufficient reason to open up the residential market. It was also suggested that pilots may not offer a meaningful test since each is only for a defined period of time and, therefore, produce behavior by suppliers not as likely in a truly competitive market.

One of the LDCs is very skeptical about any potential benefit to residential customers if a choice of supplier is available. It questions whether gas would continue to be delivered during the winter without interruption, and what is done if not; and, whether any cost savings will actually be realized by consumers.

All agree that if residential transportation is offered, reliability of service would remain paramount, and delivery of gas to residential customers would need to be done with the same degree of reliance as practiced presently by the distribution utilities. The LDCs also agree that education is the key to successful gas unbundling, and to a meaningful pilot program. All parties with a stake in the outcome must be involved in the education effort - the customers; the regulators; and the suppliers.

Opinions varied on what conditions should be placed on gas marketers to participate as a supplier for residential customers. None appeared to believe that marketers should be regulated by the Commission, but all suggested that standards for participation and enforcement are necessary. These issues are best addressed between the distribution utility and the marketer, probably through the utility's tariff requirements stipulating conditions for participation as a supplier; and developed through a collaborative

process involving all stakeholders. In particular, the ability of a customer to jump back and forth between a marketer and the LDC needs to be addressed, as does aggregation issues relative to number of customers or minimum volume requirements.

Stranded costs and the collection of local and state taxes are two additional issues on which there is agreement. Interstate pipeline and storage capacity which the LDCs acquire for their firm customers should be assigned to either the customer who chooses an alternative supplier or to the supplier. Otherwise, either the LDC's shareholders or the remaining firm customers pay for the capacity not otherwise used, which should not be allowed. (This presumes, of course, that the capacity was contracted for in a prudent manner, and the LDC has utilized the pipelines' capacity release programs, or other similar avenues if they exist, to the extent possible.)

LDCs differ on whether their merchant function in an unbundled environment should continue. At least one sees a future whereby the LDC will only perform a distribution function, maintaining ownership and responsibility of its pipeline facilities and performing a transportation role instead of gas sales. Alternatively, another believes the LDC should maintain its merchant function, partly to serve as an "equalizer" in keeping other rates in check and preventing other suppliers from manipulating prices to end-users.

All see themselves as a supplier of last resort, certainly in a pilot and probably at least during a transition period if unbundling occurs. One, though, suggested that as the competitive residential market matures a service as supplier of last resort could become a niche market economically and competitively attractive to some suppliers.

Some LDCs appear to want to consider removing their gas purchases from the Gas Cost Adjustment (GCA) mechanism. This would allow the LDC an opportunity to make profits on its sales (and, presumably, lower prices to the customers), the absence of which it is claimed leaves no incentive for the LDC to remain as a supplier in an unbundled environment. These LDCs say it would also allow them to compete more effectively with marketers (many of whom may have shorter time horizons and more flexibility) by reducing or eliminating the present timing delays in passing through adjustments via the quarterly GCA.

Finally, some LDCs commented that the Commission should review its existing transportation policy, and statutory and regulatory authority. For example, one LDC proposed that the Commission's policy on bypass, as evidenced in decisions issued in some cases, should be revisited. Customers should be able to request service from any supplier; i.e., competition should exist between LDCs as well. Regarding extensions of pipeline and facilities, one LDC suggested the Commission's regulation requiring a gas LDC to provide each prospective customer 100 feet of main without charge should be eliminated; it has become outdated as LDCs try to reduce costs to compete. One other LDC believes the regulation defining an extension as "ordinary course," which means an

extension does not require prior Commission approval for construction, is too broad and its present interpretation results in unfair competition for LDCs.

Marketers

Affiliated Marketers. Residential customers should have choice, even if the reduction in gas costs is minimal (which they do not believe will be the case). But, marketers should be required to provide service to anyone; otherwise, some customers or groups may not be able to participate. LDCs should ultimately be out of the merchant business, including any storage rights held (both on interstate pipelines and any in-state storage).

At least one of the marketers is currently active in residential/small commercial transportation programs in other states, and reiterated the LDCs' point that the size of a pilot should not be limited. The larger the better, providing a more reflective picture of how a competitive market would operate. Pilots not properly designed do not provide enough incentive to encourage marketer participation, and can result in one-time offers which are unsustainable in a truly competitive market.

All marketers agree, like the LDCs, that education is the key to a successful pilot program, as well as to the unbundling process. Customers must be presented information in a simple and direct manner by both the utilities and the marketers, and the Commission. Allowing the LDC recovery through its rates of costs related to marketing residential transportation programs, is helpful to the education effort.

All believe the Commission should avoid being the "enforcer," at least directly. As an example, while dispute resolution should be part of any transportation program, the process should be between the LDC (as operator of the distribution system) and the supplier (in the LDC's tariff); the Commission should serve as a last recourse for settling disputes. Marketers believe the market will essentially police itself and non-performers will weed themselves out. In dealing with a supplier who fails to deliver gas to a customer, a program could require marketers to provide swing service either to the customer directly or the LDC (effectively making the LDC the supplier of last resort). One state has required that a code of conduct be placed in the utility's tariff which requires each supplier to provide swing or back-up service.

Marketers said that LDCs should not have the obligation to serve customers in an unbundled, competitive market, and that LDCs should only become the supplier of last resort upon choice. Marketers also believe that in a fully competitive residential market a service as supplier of last resort will have sufficient value for a supplier to provide it. A collaborative approach was endorsed as the best way to approach further unbundling, including implementation of a residential/small commercial transportation program.

Independent Marketers. These marketers see a somewhat more active role for the Commission in instituting gas unbundling. In their opinion the more involvement by the Commission in setting guidelines, the more successful such action has been in other states. Although this sentiment was somewhat modified by one individual who said the Commission's policy of granting confidentiality to LDCs' special contracts was anti-competitive.

Small commercial customers currently do not have the ability to participate in transportation since the LDCs' transportation tariffs have minimum volume requirements to qualify, which most of these marketers believe should be removed. Any perceived difficulties by the LDCs in balancing for or billing small commercial customers can be addressed by allowing a marketer to pool small loads for delivery to the city gate. Along a similar vein, an LDC should not have volumetric or location restrictions on delivery points for entry of a marketer's gas supply into the LDC's system; and, aggregation of meters within the city gate of an LDC's system should be allowed for a customer who has multiple meters (fast food restaurants, school systems, and the like).

LDCs should not be allowed to hold rate information confidential, which the Commission has allowed for special contracts in the past. Only one marketer, though, said he would be willing to publish the rates in his contracts. Some do not think bonds should be necessary for participation in residential transportation programs; others said they should. Customers should be able to swing back and forth between the LDC and the marketer, with the LDC assuming the role as back-up. Marketers should also have the option of using their own capacity instead of being assigned the LDC's capacity for each customer who switches.

Residential Groups

According to these representatives, residential customers are concerned about reliability, payment plans, shut-off, reconnection costs, and late charges. They are unconvinced that real savings will result from residential transportation or further unbundling. Rather, increased customer savings will result from greater review of the LDCs' gas purchasing practices; a process more comprehensive than the current GCA.

One concern is that unbundling will result in cost shifts which will fall on residential customers who remain with the LDC. Such costs should not be borne by those who are not participating in the program, certainly not all of the costs. It was also stated that with non-regulated affiliates of utilities operating in a market, it becomes increasingly difficult, but much more important, to be able to determine that competition actually exists.

If residential/small commercial pilot programs are allowed, the Commission should monitor participation closely to know which suppliers are creditworthy and able to perform.

A pilot should be as large as feasible. However, the prevailing opinion is that residential customers are not clamoring for choice; and, coupled with the unanswered question where savings will come from, this group wonders whether doing anything at all makes sense. If anything, why not properly designed and implemented incentives? But, even incentives do not always result in lower prices.

Programs for energy conservation (such as demand side management programs) and low-income customers are additional, and very important, considerations if gas unbundling proceeds further. They believe that programs like these allow targeted customers to share in the benefits of unbundling which otherwise would not reach them due to non-participation. The "sharing" could be funded through a surcharge on the LDC's transportation rate (which all suppliers would pay); or, through a surcharge on an LDC's off-system sales, if allowed by the Commission, for example, through an incentive program. Large volume customers are the beneficiaries of competition, not residential customers. Therefore, some percentage of the "savings" realized by this group should fund assistance to those who cannot participate in the competitive market.

The feasibility of a statewide universal service fund (USF), supported with a surcharge of some type, should be investigated. A USF would specifically address energy-related problems of low income customers. It could also be used to reduce energy usage and payment problems, which often plague these customers, and at the same time be beneficial to LDCs and ratepayers by transforming so-called "problem customers" into customers paying more reliably. If they leave the system, contribution to fixed costs are no longer made.

Industrial/Large Volume Gas Customers

According to KIUC, its clients operate in a mature gas transportation market, including at the intrastate level, and do not see any need for significant changes. Cost of service ratemaking should continue, and the Commission should maintain regulatory oversight over the distribution component of an LDC's system (in part to assure that the LDC's costs do not get "out of line").

If residential transportation is implemented, no impact on KIUC's clients would occur so long as "diseconomies" are not added on to industrial customers' bills, such as trying to assign storage costs to a customer's interruptible transportation rate. Like the LDCs, KIUC wonders how costs to the residential class will go down simply due to transportation service, partly due to the poor load factor of residential customers. In a residential/small commercial transportation program, "human needs" customers like schools should not be allowed to purchase gas on an interruptible basis. According to KIUC, when these customers are allowed to do so, and their supply is interrupted, the loss is made up by taking industrial customers' gas.

KIUC does not foresee LDCs no longer providing a merchant function; sometimes its clients request rebundled services including sales gas from the LDC.

With regard to local and state taxes, KIUC said some industrial customers are exempt from the state's use tax, and it would be wrong to change. KIUC also clarified that when a gas purchase takes place outside the state, prior to delivery at the LDC's city gate, no sales tax is assessed on that purchase. As transportation is expanded, the potential for further erosion of the sales and use tax bases is possible.

Attorney General's Office

The AG's representatives agreed with many of the observations made by the Residential groups. They also wondered, if instead of competition resulting from unbundling, does dominance by a limited number of participants eventually occur? They also questioned whether additional costs related to further unbundling eliminates any potential profit to companies or perceived savings to customers.

Serious concern was expressed about the potential loss in local and state tax revenues if transportation is expanded to the residential market.

If unbundling is implemented, the AG sees a broader role for the Commission; for example, dealing with fraud and many other customer service issues as residential customers interact with alternative suppliers, especially if such suppliers are less regulated than what the customers are familiar with. In a residential transportation program, marketers should probably be licensed in some manner, in part to know who is out there providing service.

In lieu of further unbundling, other incentives to LDCs are seen as appropriate as long as some sharing of revenues takes place with the ratepayers. Price caps, if allowed, must have proper indices to allow a proper level of sharing to occur.

Legislative Research Commission

Like some others, the LRC Staff wondered what the benefits to residential customers would be with unbundling. The Commission could approve pilot programs, which should help determine whether residential customers want choice in their gas supply decisions and what the problems with full implementation would be. The Commission should develop standards for marketers, including conditions of contracts between marketers and LDCs, and between marketers and their customers. These standards could be part of a code of conduct encompassing all parties.

Of paramount importance is the tax issue and the potential for reduced collections to the state and local tax-collecting authorities. As an example, the school tax is applied

to gross revenues on customers' utility bills. If those gross revenues are reduced because customers purchase gas from marketers (whose gas is purchased out of state), then the school tax assessment could go down (depending on the definition of the term "utility" - who is regulated - and how customers are billed, among other things). The LRC Staff also asked whether further unbundling could result in less Commission authority over the tax issue, to the extent Commission authority exists, as well as customer service concerns. If a pilot program or unbundling is implemented, any tax issues must be addressed to avoid a reduction in state or local revenues.

The LRC Staff also asked whether the Commission's ability to continue low income and DSM programs would be jeopardized, given the competitive nature of the market which results from further unbundling. With telephone and electric service the issue seems to be one of cost and the lack of service; whereas, with gas it is more one of an ability to pay. How can programs which assist low income customers, or ones which promote energy conservation, be funded in an unbundled, competitive market?

Energy Conservation groups

DOE Staff explained that four DSM collaboratives currently exist, three addressing primarily electric issues and one involving a gas-only utility. While gas utilities were characterized as historically less active in the DSM area than electric utilities, four of the five large gas LDCs are now involved with programs for natural gas vehicles.

Gas and electric utilities should combine their energy conservation efforts where service areas are common.

According to DOE, existing funding for state energy conservation efforts is eighty percent federal with the balance from the state. The threat of additional budget cuts by the federal government is always present. More incentive should be provided at the state level for energy conservation and DSM programs, and one way to achieve this is to use the utilities as a source of funding through a surcharge of some type applied to all customers.

The DOE Staff does not believe the competitive market addresses how to adequately inform the public, or even assures that service is made available in a fair and equitable manner. Experiences from past programs indicate that the market focuses on urban areas at the expense of rural citizens.

SELECTED ISSUES

Reliability in an Unbundled Gas Market

For purposes of this report reliability is the assurance that the intrastate pipeline system used by the supplier has the capability to deliver the gas to its customers. Presently, LDCs own and operate most of the transmission pipelines and distribution mains, and related facilities, comprising the "distribution system" generally focused upon in unbundling discussions. This distribution system has evolved over time and expanded to meet the growing needs of the utility and many of the residents in Kentucky.

The LDC, as owner, has been the entity responsible for maintaining these pipelines, mains and facilities in compliance with state and federal requirements.¹² In an unbundled environment access to the distribution system by alternative suppliers will occur; and is already the case involving most large volume gas customers. Such access has been underway in Kentucky since the mid-1980s as these customers began arranging for their own gas supplies.

The principal issue is who should maintain operational control of these pipelines. Historically, only the LDC's gas was delivered via the interstate pipelines to the LDC's city gate(s). Beginning with transportation programs in the 1980s, the LDC began receiving other suppliers' gas at the city gate, commingled with the LDC's own gas supplies. For most LDCs, most of this gas was, and is, destined for customers connected to the LDCs'

¹² 49 CFR Parts 190, 191 and 195, collectively the Federal Pipeline Safety Act and amendments, and 807 KAR 5:022, and 5:023, Kentucky regulations, prescribe compliance standards for gas transmission and distribution pipelines (mains) relating to design, construction, operation and maintenance; and also to various facilities, or appurtenances, used in conjunction with these pipelines, such as: valves; regulators; cathodic protection systems; and much more. These regulations also prescribe drug and alcohol testing requirements for operators of these pipelines.

distribution systems. These changes have occurred while the LDC has maintained its role as operator and monitor of the distribution system.

System reliability, though, means more than compliance with state and federal safety requirements. The LDC has always been required to monitor and adjust operating pipeline pressures, schedule gas deliveries and flows, and monitor the usage of large volume customers. But, today, these responsibilities must be accomplished with the cooperation of other suppliers, necessitating measures which enable the LDC to continue to accomplish what it has always tried to do: assure that gas supplies, when delivered to the city gate, get to the customers.

Reliability today can require nominations and balancing; monitoring usage via telemetry; and operational flow orders sent by the LDC to suppliers. These are some of the tools used by the LDC to help assure, for example, that one supplier's gas is not used by another supplier whose delivery did not reach the LDC's city gate; or, to address over-nominations by a supplier which may result in the improper (unpaid) use of the LDC's distribution system.

The LDC should continue its existing role as the responsible party for the operation of the pipelines which are used by all suppliers for delivery of their gas to customers. If unbundling continues, it is conceivable that this responsibility may require additional measures to assure that no one group of customers subsidizes the use of the LDC's distribution system by others. It is extremely important that the LDC's actual costs to operate its distribution system be clear; that these costs are accurately reflected in its distribution rates; and that the costs are recovered equitably from all customers who utilize it.

If residential unbundling proceeds, as the responsible party for the distribution system, the LDC safety responsibilities will not change. The LDC will still be required to develop and update as necessary emergency, safety and operations/maintenance manuals. It will continue to be required to adopt and file with the Commission an inspection procedure to assure safe and adequate operation of its facilities, and to report accidents, property damage and loss of service on these facilities pursuant to existing regulations.

Commission regulations also specify standards for the purity and heating value of gas supplied to customers. With unbundling this responsibility should remain with the LDC since it will be operating and maintaining the pipelines through which the gas is flowing to the end-users. If necessary, the LDC should also establish a common unit of measurement (Mcf or Dth) for gas entering its distribution system, to allow customers to compare offers from competing suppliers and to provide a common basis from which billing and delivery disputes may arise.

Stranded Costs

In restructuring the natural gas industry to provide for the partial or complete unbundling of the merchant function from the distribution function for LDCs, the issue of stranded costs must be addressed at the outset. All stakeholders need to understand what costs are included in "stranded costs," and how this issue is resolved.

Pipeline Transportation Demand Charges. The most obvious, potential stranded costs are interstate pipeline transportation demand charges. These charges are established by contract and must be paid by the contracting LDC to the pipeline whether the contracted pipeline capacity is used by the LDC to transport gas to its customers or not. According to the information provided by the five large LDCs, most of their existing pipeline contracts expire sometime during the period November 1998 through 2002.

In pilot programs approved by other state commissions this contracted capacity issue has been addressed in two ways: 1) requiring marketers to take assignment of pipeline capacity from LDCs to serve customers that elect to buy gas through marketers; or 2) leaving the pipeline capacity with the LDC and giving the marketers the option of taking assignment of the capacity or acquiring capacity by some other method. Based on the informal discussions, option 2 is more attractive to marketers who can "beat" the LDC on the transportation-to-the-city-gate portion of gas cost by picking it up in the capacity release market, or arranging for it by some other means. Some believe that this option is so attractive to marketers, in fact, that it can practically guarantee the success of a pilot program if capacity assignment is not required. Of course, it is the use of option 2 which will cause pipeline demand charges to be "stranded" with the LDC (and, perhaps, why LDCs may prefer option 1 or a similar approach).

In dealing with stranded pipeline charges, there are identifiable options: 1) continue to spread pipeline demand charges, stranded or not, across all customers (this would result in a situation where the customer choosing to buy his own gas through a marketer would be paying twice for pipeline capacity he uses once; it would also create the false appearance of savings by choosing a marketer to supply gas); 2) require the LDC to absorb some or all of the charges in return for the "opportunity" to create a competitive market for supplying gas; or, 3) require a collaborative process to negotiate a mutually acceptable disposition of stranded cost.

The best stranded cost is no stranded cost. Until current pipeline contracts expire, pipeline capacity to serve small volume markets is already bought and must be paid for. It seems irresponsible and misleading to allow marketers to tout their product as "cheaper," when the "savings" is being paid to the LDC by all the customers (assuming that the LDC does not absorb some or all of the stranded cost through options two or three in the preceding paragraph). The marketers' customers could pay twice. This is essentially creating a market out of smoke and mirrors.

One point of view is if marketers really want to enter the competitive arena and attempt to beat the LDCs at their own long-time game of procuring gas, let them do so on a level playing field. There is no public outcry for residential unbundling in this state to the point that the Commission and the gas industry cannot wait for existing contracts to expire, and let the stranded cost issue take care of itself. While doing so, unbundling to residential customers could be permitted with the proviso that marketers take assignment of the capacity. As an alternative, LDCs and marketers could be allowed, even encouraged, to work out among themselves a plan that will leave no stranded cost to be picked up by customers (e.g., requiring some absorption of cost by one or both parties in addition to some assignment of pipeline capacity).

If residential transportation occurs, one can only speculate at this point as to whether a requirement to take capacity assignment would hinder marketer participation. A rebuttable presumption is presented, for comment: that marketers who are willing to enter the market and take the assignment, and compete on a level playing field from the outset, are the kind of suppliers needed to minimize the impact on residential customers moving through the transition period to a competitive world.

Labor Costs. Another possible stranded cost is labor cost associated with LDC staff whose sole duties have been gas procurement. To the extent that the LDC no longer performs this function for end-users, some or all of the cost associated with these employees could be stranded. This will differ among utilities depending on (1) how much gas procurement still must be done, and (2) the extent to which under-utilized employees can be shifted to another function where they can be fully employed.

Other. Are there other potential stranded costs to utilities not identified in this report? Others could arise with individual utilities, depending upon functions no longer needed and/or possibly spun off to affiliates because of the newly restructured market.

Any cost other than gas cost (such as the pipeline demand charges) that becomes "stranded" will be stranded with the remaining customers as they continue to pay rates designed to recover an LDC's expense that no longer exists. To the extent that an LDC hires less procurement staff, for example, ratepayers are still paying for this staff in existing rates. Until the LDC's base rates are adjusted again, either the shareholders will have the benefit of the ratepayers' contribution toward obsolete procurement staff, or the LDC will shift that contribution to another area where it requires revenue. Consequently, LDCs should be encouraged to share the benefits of competition with ratepayers; perhaps, through specifically-designed incentive programs.

Supplier of Last Resort

Historically, the LDC has been responsible for securing and delivering an adequate and reliable supply of gas to its customers. Customers who want a firm gas supply without

interruption are entitled to this type of service. Presently, an LDC arranges its firm supply through contracts with producers, marketers and other parties who have gas, or access to it. Delivery of the supply to the LDC's system, its city gate(s), is assured through contracts for firm capacity on the necessary pipelines. Sometimes, an LDC will also contract for storage capacity which can be available from the pipelines or independent operators of storage facilities.

As the industry has evolved in Kentucky, those who want firm gas supply today tend to be almost solely residential and small commercial customers. Customers who use large volumes of gas arrange most of their own gas supplies and pipeline transportation, or have marketers or agents do so. For these customers the LDC provides only a transportation function, representing the final step in the delivery of gas to their points of use; unlike residential and small commercial customers, who purchase all their gas supply needs directly from the LDC.

If the LDC's rates and services are unbundled to include the residential class, and residential customers are provided the opportunity to choose a gas supplier other than the LDC, then consideration must be given to what types of arrangements should be in place if a customer's supplier fails to deliver gas. Presently, the Commission has direct authority over the supplier, the LDC, but in an unbundled environment most suppliers may be regulated much less, if at all.

The issue here is twofold: if the supplier fails to deliver a customer's supply of gas to the LDC's city gate; and, under what conditions should the LDC have access to another supplier's gas during a time of "need." This latter situation has occurred infrequently over the years in Kentucky, so far as the Commission is aware. Except during periods of severe weather conditions or pursuant to tariff conditions for service, instances where an LDC took a transportation customer's gas for the LDC's own purpose have been rare (nonexistent, perhaps). The manner in which such action can take place and the reimbursement provided is addressed in the utility's transportation tariffs. The LDC's curtailment provisions, which are also in an LDC's tariff, may also play a role.

However, in moving toward an unbundled environment which allows residential customers to use alternative suppliers, the new issue becomes who should stand ready to step in with supply if the customer's supplier fails to deliver, not to the customer's home but to the LDC's system. This has not been an issue for the Commission regarding non-residential customers who transport because these customers either have dual-fuel capabilities or make other arrangements when gas is not available.¹³ Residential customers of the five large gas LDCs, on the other hand, have seldom if ever experienced

¹³ Industrial and large commercial customers often buy and transport gas on an interruptible basis for cost considerations. These customers should expect, and most have experienced, interruptions of supply.

a disruption in service due to the supplier's (the LDC's) inability to secure and deliver enough gas. In fact, much regulatory oversight is dedicated to assuring this does not happen.

If unbundling occurs and the residential market is opened up to alternative suppliers, guidelines and standards of conduct for all participants will be necessary to help prevent suppliers from failure to deliver. For example, in at least one pilot suppliers are required to demonstrate adequate gas supply resources to meet its customers peak demand needs, or agree to provide standby service.

Regardless, a residential customer should not be placed in a position where a gas supplier's failure to perform creates a life-threatening situation, such as no gas on a mid-winter day with sub-zero temperatures. While one can argue that in a competitive market the consumer should live with his choice and suffer the consequences, a "buyer beware" approach is not sufficient.¹⁴

If the transition to choice takes place for residential customers, the LDC should be the supplier of last resort. As the market matures, the LDC may no longer need to be responsible for standby service; other suppliers may fill this niche and find it economically attractive to offer this service to customers.

As the supplier of last resort, the LDC should not be placed at a competitive disadvantage with other suppliers, and must be allowed to charge rates which fully compensate for standby service. Whether the marketer or customer is billed, the cost for the service should be fully reflected in the rate,¹⁵ which may include balancing or other costs historically rolled-in to the LDC's sales rate (and therefore not apparent to the customer).

Universal Service and Disconnections

¹⁴ For what period of time residential customers need to be "protected" from making a bad decision is unclear. At least during the transition to a competitive residential gas supply market, while customers become more educated about the ramifications of their gas supply choices, some degree of "protection" seems proper and in the public interest.

¹⁵ Given the condition under which standby service of this sort would be needed, it is likely this will be a premium cost service. If the LDC contracts for a source of supply and delivery ahead of time, the low load factor represented will result in high demand and commodity costs; and if gas is purchased only at the time of need, demand will be high and the gas priced accordingly by the market.

In a gas unbundling environment where residential customers select their own suppliers, and the existing LDC prices separately its tariff services, is there a place for demand-side management (DSM) programs? Would payment assistance programs, such as LIHEAP, be affected? If an LDC has elected to participate in a "local LIHEAP" program, such as a percentage of income payment plan, how does such a program continue with unbundling?

The concept of universal service is familiar in the telecommunications industry, where users of particular services pay a surcharge dedicated to a fund which helps subsidize the cost for telephone service to rural areas, basic service to certain qualifying customers, and perhaps other needs. In the recent unbundling legislation passed in Georgia, however, the term "universal service" applies to a fund established to reimburse gas suppliers who have unpaid gas bills from their customers. The Georgia fund can also be used to support economically justified pipeline expansion projects.

Should a universal service fund be part of any gas unbundling initiative? If so, what would be its purpose(s)? Those in some states believe, as a practical matter, that failure to address the concerns of low income customers would likely doom implementation of a gas unbundling program.

Currently, LG&E is part of a collaborative venture with other parties providing various programs aimed at reducing energy usage. One such program, Energy Partners, is directed at low income customers. Columbia Gas is in the second year of a two-year pilot where low income customers may qualify for a percentage-of-income payment plan. Western Kentucky Gas has recently initiated a collaborative effort to introduce DSM programs to its customers, which will likely include some focus on low income customers' needs. How do these efforts continue in an unbundled gas environment?

In addition to DSM and payment assistance plans, the issue of disconnections needs to be addressed. In an unbundled environment who is responsible? If the LDC is, because the non-paying customer is connected to its main, how is this coordinated between the LDC and the gas supplier? What is done in a situation where the customer is being billed separately, by his supplier for gas and by the LDC for distribution service, and the customer pays the LDC but not the supplier?

Possible approaches to these issues center around two concepts: 1) costs related to extending and maintaining service to low income customers are societal in nature and should be collected from taxpayers, not only ratepayers of distribution utilities; and 2) the distribution utility assumes the responsibility for administering low income programs including disconnects, and costs are spread among the utility's ratepayers. Should the Commonwealth of Kentucky adopt the responsibility, determining who should be covered, at what levels, and identifying a revenue stream to support it? Historically, legislation or other state-supported activity has not generally been forthcoming to assume a state

responsibility such as this; a notable exception has been participation in the federal LIHEAP program. However, the Commission has generally held such an issue is a matter for legislation.

If an unbundling program is implemented, the LDC could continue to be the collector of funds for a universal service program. One way would be to add a charge on the distribution service rate the LDC charges to all suppliers using its system. But, in this scenario who has the responsibility, if anyone, to provide services to this group of customers which have been historically provided by the LDC? Especially, if the LDC chooses to eliminate its merchant function?

In at least one of the current pilot residential transportation programs, low income customers have been assigned to a pool; suppliers participating in the pilot must provide service to customers from this pool on a proportional basis. The pool is supported by revenues generated from a fee added to the LDC's distribution service rate. But, again, regardless of the source of revenues, who has the responsibility to assist these customers?

Elsewhere in this report the issue of supplier of last resort is presented, but is discussed in the context of gas supply reliability and providing gas to a customer whose supply is not delivered. Should the supplier of last resort assume the responsibility for service to low income customers? To the extent the regulatory process provides safeguards for low income and other customers, should these safeguards continue to apply to the LDC's distribution service in an unbundled situation?

Statutory and Regulatory Authority

Included here are definitions of statutes, regulations and terms which presently exist and help guide the Commission, as well as regulated and non-regulated entities, in the interpretation and implementation of natural gas policy and activities in Kentucky. While not all-inclusive, the list encompasses the principal references used by the Commission.¹⁶

Does the Commission have the statutory authority to implement gas unbundling as defined in this report? Should the policy established in Administrative Case No. 297 regarding regulation of marketers be revisited by the Commission, in the context of what may be implemented toward unbundling? Does the term "marketer" require a definition? If the Commission chooses to proceed with unbundling, but marketers are not regulated to any extent, on what basis can codes of conduct for market participants be enforced on marketers; or, guidelines for marketing affiliates of LDCs be supported?

¹⁶ A part of this list is from the Commission's May 27, 1997 Order in Administrative Case No. 297.

Perhaps the current non-regulated status of a marketer remains warranted; as well as existing language in these statutes and regulations. However, comments and suggestions are requested on whether changes are necessary, with or without gas unbundling.

For example, one LDC has suggested that 807 KAR 5:001, Section 9(3), which defines when an extension is ordinary course (whereby a certificate of public convenience is not needed) is too broad and should be clarified. Other LDCs have commented that 807 KAR 5:002, Section 9(16), wherein gas utilities must provide 100 feet of existing main extension without charge to a prospective customer, should be revised or eliminated.

What is the relationship of alternative regulation to gas unbundling in Kentucky? Recent legislation passed in Georgia allows a pipeline operator or LDC wishing to unbundle to take the first step to be placed under an alternative form of regulation, such as performance-based ratemaking. Is regulation by a form other than traditional rate base/rate of return a prerequisite to gas unbundling? Does the Commission require additional statutory authority, such as an alternative regulation similar to KRS 278.512 to approve a gas utility's unbundling program?

Statutes

KRS 278.010 (3)(b)-(c): (3) "Utility" means any person except a city, who owns, controls or operates or manages any facility used or to be used for or in connection with: ... (b) the production, manufacture, storage, distribution, sale or furnishing of natural or manufactured gas, or a mixture of same, to or for the public, for compensation, for light, heat, power or other uses; and (c) the transporting or conveying of gas, crude oil or other fluid substance by pipeline to or for the public, for compensation...."

KRS 278.470: "Every company receiving, transporting or delivering a supply of oil or natural gas for public consumption is declared to be a common carrier, and the receipt, transportation and delivery of natural gas into, through and from a pipeline operated by any such company is declared to be a public use."

KRS 278.504: (1) "Intrastate pipeline" means any utility or any other person engaged in natural gas transportation in intrastate commerce, for compensation, to or for another person or to or for the public, but shall not include any part of any pipeline dedicated to storage or gathering or low pressure distribution of natural gas.

(2) "Interstate pipeline" means any person engaged in natural gas transportation subject to the jurisdiction of the Federal Energy Regulatory Commission under the Natural Gas Act or the Natural Gas Policy Act of 1978.

(3) "Local distribution company" means any utility or any other person, other than an interstate pipeline or an intrastate pipeline, engaged in transportation or local distribution of natural gas and the sale of natural gas for ultimate consumption, but shall not include any part of any pipeline primarily used for storage or gathering or low pressure distribution of natural gas.

(4) "Intrastate commerce" includes the production, gathering, treatment, processing, transportation and delivery of natural gas entirely within the Commonwealth which is not subject to the jurisdiction of the Federal Energy Regulatory Commission under the Natural Gas Act or the Natural Gas Policy Act of 1978.

(5) "Transportation" includes exchange, backhaul, displacement or other means of transportation.

By Order¹⁷

"Broker" is a person engaged in the practice of arranging supply and transportation of natural gas for specific customers. Brokers do not take title to the gas and possess no physical plant.

"Dealer" is a person engaged in the practice of purchasing gas and arranging for its supply and transportation to customers. Dealers may take title to the gas but maintain no physical plant.

"Transporter" is a utility engaged in the practice of arranging transportation and supply of natural gas. A transporter may or may not take title to the gas but does maintain facilities for the transportation of natural gas.

"Merchant function" is the purchase of natural gas for resale.

"End-user" is a retail customer; one who consumes natural gas at the burner-tip.

Regulations

807 KAR 5:001: General regulations of procedure, including requirements for filings, hearings, exhibits, applications for rates and certificates of public convenience and necessity, and formal complaints.

¹⁷ Definitions for broker, dealer, transporter, merchant function and end user are taken from the Commission's May 27, 1987 Order in Administrative Case No. 297, pages 6-7.

Section 9(3): Extensions in the ordinary course of business.

807 KAR 5:006: General rules relating to responsibilities of the utility and customer, including billings, meter readings and meter testing; bill adjustments; customer relations and customer's bill of rights; location of records; inspection of systems; and reporting of accidents or loss of service.

807 KAR 5:011: Tariffs. Includes what the form and content should be; when certain notices must be filed with the Commission; non-recurring charges; and special contracts.

807 KAR 5:022; 5:023; and 5:027: Gas safety regulations, including adoption of 49 CFR Parts 191 and 192; Control of drug use in gas operations, an adoption of 49 CFR Part 199; and reporting requirements for gas leaks of natural gas utilities.

807 KAR 5:026: Relates to gas service from gathering pipelines (farm taps). It would appear that the scope and nature of unbundling discussed thus far with the stakeholders, if implemented, would have little direct impact on farm tap service, either from the gas producers/gathering line operators or the customers.

Aggregation of Supplies

During the informal discussions the issue of aggregation came up in two ways. First, marketers want the ability to deliver their gas supplies to whatever city gate on the LDC's system most advantageous to the marketer's deal, without the LDC dictating that supplies must be nominated for this or that delivery point; and be able to combine deliveries at multiple delivery points when it is advantageous to do so, subject to reasonable conditions agreed to through discussion with the LDC. Secondly, the independent marketers especially, believe that customers who have meters at multiple points on an LDC's distribution system should be able to combine their total purchases from all points for purposes of qualifying for transportation tariffs with high, minimum volume requirements. Some of these marketers also said numerous small commercial customers have complained that the existing volume limitations some LDCs have in their existing transportation tariffs prevent them from having their gas supplies provided by someone other than the utility.

Generally speaking, based upon the discussions during the informal meetings, the LDCs seem willing to consider these points. Additional administrative costs are cited as one concern by the LDCs. At least one LDC, though, already provides pooling to transportation customers.

The timing would appear proper for the LDCs to review all terms and conditions in their transportation tariffs; specifically, to determine if any remaining minimum volume

requirements restrictions remain necessary. Small commercial customers should have the ability to arrange for their own gas supplies, and have access to transportation on the LDC's system.

It also seems reasonable that customers like county school systems, fast food restaurants, and other multi-meter gas users, should be able to consolidate purchases from all their sites to determine qualifications for tariffed services; this would seem especially so for transportation service.

The Issue of Taxes

An underlying premise of the current restructuring of the natural gas industry is that competition for certain services, currently provided almost solely by the LDC, will result in a better, more efficient natural gas market. In order for an efficient natural gas market to evolve, current statutes and regulations applicable to the taxation of, by and through utilities need to be reviewed and may require modification in order to achieve a "level playing field" that will result in competitively priced utility services. If unbundling of natural gas services occurs without any necessary changes to existing statutes and regulations, then taxing inequities among competitors will lead to a skewed market that does not result in competitive pricing but, rather, allows a tax-advantaged competitor to gain market share which otherwise might not occur.

Examples of existing taxes that need to be reviewed include gross receipts taxes, property taxes, and sales and use taxes that have historically been applied exclusively, or at least differently, to utilities or utility customers. Presently, in Kentucky, natural gas providers who are not subject to certain taxes and treatments may have a competitive advantage over those who are. Additionally, if taxes are not applied universally, taxing authorities will realize losses in tax receipts as consumers shift from the higher- to the lower-taxed provider.

Tax issues such as these are not unique to the natural gas industry. Much can be learned from the telecommunications industry and from research concerning restructuring issues in the electric industry. A recent report entitled, "Federal, State and Local Tax Implications of Electric Utility Industry Restructuring," prepared by Deloitte and Touche LLP for The National Council on Competition and the Electric Industry noted that competition in the electric industry will present two basic issues for state and local governments:

"First, unless existing tax laws are changed, competition is likely to cause revenues to decline in many jurisdictions. This could result from lower electricity prices, a shift in market share from more to less heavily taxed providers, and declining values of property owned by utilities. Second, to the extent

that various providers of electricity are taxed differently under existing law, these differentials will have a very different economic impact in a more competitive environment than they have had under cost of service regulation. Essentially, taxes that have been passed through to customers as higher electricity rates will be borne to an increasing extent by utilities themselves and will affect who provides electricity and where it is generated."

These statements could equally apply to the gas industry.

The Deloitte Touche Report also points out that there are constitutional constraints on state and local governments that may limit those jurisdictions' authority to collect certain taxes from out-of-jurisdiction entities. These constraints include the Commerce Clause's prohibition against implementing policies that discriminate against interstate commerce and the Due Process Clause which limits a jurisdiction's ability to tax out-of-jurisdiction entities if the non-jurisdictional entity does not benefit from the services supported by the taxes collected - that is, if sufficient nexus is not demonstrated. These constraints are equally applicable to the natural gas industry and may in fact impede state and local governments' ability to react quickly to the changing environment. Other issues discussed in the report include the following: existing IRS normalization rules; the dispensation of booked accumulated deferred income taxes; current competitive inequities between regulated and non-regulated, taxable versus tax-exempt, and jurisdictional versus non-jurisdictional; policy alternatives; and, the impact of the merger and acquisition trend that is growing as restructuring occurs.

Ideally, any changes to existing tax laws, that are necessary to ensure that competition is not impeded by tax inequities among competitors, should be in place prior to unbundling utility services in order to avoid unintended, arbitrary aberrations in the evolving natural gas market. A primary objective of any such changes should be that the changes be revenue neutral. Revenue neutrality as used here means that the total tax revenues (not necessarily the actual revenues collected) for which the taxes are designed to recover should not change simply as a result of the restructured natural gas market. Absent this neutrality, consumers will receive inefficient price signals regarding the effects of competition on the provision of natural gas service.

Numerous tax reform measures are being discussed in other states, and in some pilots, such measures are used by the various parties as a means of dealing with tax inequities and other complex issues surrounding the evolving competitive market for utility services. These measures include: substituting an excise tax on all consumers for existing property, sales and use and other taxes; the simple elimination of certain taxes requiring taxing authorities to seek new revenue sources or simply adjusting to less revenues; adjusting differing tax rates applicable to competitors so that there is universality in the

rates applied to competitors; and, possibly requiring the LDC to retain the billing function and the responsibility for existing taxes which it would bill to the service providers on an appropriate basis. Due to the differing taxing structures that exists among the various jurisdictions, there does not seem to be one right way to address taxing inequities.

The table below includes a listing of state and local taxes that may require close scrutiny in evaluating whether changes to the applicable tax codes are necessary in order to ensure that each competitor has the same tax rights and obligations:

TAX	LEGAL AUTHORITY	DEFINITION
Corporate Income Tax	KRS 141.010.	Assessed on taxable income of corporations: organized in Ky.; having employees or property in Ky.; or having its commercial domicile in Ky. (with certain exceptions).
Corporate License Tax	KRS 136.010, 136.070(2) and (3)	Assessed at a rate of \$2.10 on each \$1,000 of capital employed in the business which is apportioned to Ky. Minimum tax is \$30. Certain credits are allowed. Not assessed on Public Service Corps. subject to KRS 136.120.
Property Tax	KRS132.010	Assessed on all taxable property in Ky. Property not assessed by the Revenue Cabinet (which assesses property of public service companies, etc) is assessed by the local property valuation administrator at the fair cash value. This assessment is then forwarded to the Revenue Cabinet where it is reviewed and needed corrections are recommended back to the local assessor. The tax is collected by the sheriff and county clerk of the county in which the property is located. It is administered by the Revenue Cabinet.

Public Service Company Property Taxes	KRS 136.120 136.115 136.180	<p>The property of a public service company is centrally assessed by the Revenue Cabinet. The fair cash value of the operating property is assessed as a unit as required under KRS 136.160 using the unit cost, income and sales approaches of valuation to determine the market value of the operating unit. This unit value is allocated to Ky. on the basis of business and property factors. The value of nonoperating property is then added to the allocated value to arrive at total taxable Ky. property. The state portion of each year's property taxes is billed directly by the Cabinet. The cabinet then apportions the total taxable Ky. property to the appropriate local taxing jurisdictions who tax the property under KRS 136.170.</p>
Sales and Use Taxes	KRS 139.010 139.200	<p>Sales tax, @ 6%, is imposed upon the seller's gross receipts from retail sales of tangible personal property sold in the regular course of business. Sales for residential service and energy and energy-producing fuel used in manufacturing, processing, mining or refining to the extent that the cost exceeds 3% of the cost of production are exempted from sales tax. However, if sales tax is not paid, a use tax, @ 6%, is imposed on the storage, use or consumption of tangible personal property purchased for that purpose in Ky. with residential sales again excluded.</p>
Public Service Commission Assessment	KRS 278.130	<p>Annual maintenance assessment on gross receipts of utilities regulated by PSC. Current rate is 1.253.</p>
Gross Receipts Taxes		<p>Taxes included in this category can include franchise fees, gross receipts license tax (school tax, 3% maximum), library taxes and other taxes authorized by various jurisdictions. Gross receipts taxes are applied to sales by or to entities within the taxing authority's jurisdiction.</p>

Although the tax implications of restructuring the gas industry are potentially significant and of major importance, the Commission has no authority or jurisdiction to levy, collect, or modify taxes. The implications of taxing inequities are, however, of great importance in ensuring that customers receive natural gas service at a fair, just and reasonable rate. Further study of the taxing structure in Kentucky and the implications to Kentucky's natural gas market is being conducted by the Commission Staff. Any comments or additional information that can be supplied by the participants in these areas is requested and welcomed.

Determining Market Power

There are two broad "classes" of measures: those relying upon the estimation of firm and market, demand and supply curves (i.e., elasticity and market indices); and structural measures, such as concentration ratios and structural indices. However, it is recognized that the determination of the degree of competition in any particular market can be very contentious, and is probably as much art as science.

Measures Based on Estimation of Supply and Demand Curves.

1. Single Firm Price Elasticities. Price elasticity measures how the quantity of a particular good bought in the marketplace changes when there is a change in the price of that good or a related good. Responsiveness to price changes, or the lack thereof, provides indications of the degree of control a firm has over its product, and that firm's pricing flexibility. A company's market power within its industry can be measured; particularly, the power of the dominant company.

A company's supply and demand elasticities are also measurable. Companies with inelastic demand elasticities have a freer hand in manipulating their prices and total revenues. Elasticity measures can be useful in gauging market power in a market comprised of companies of similar size or a market with both large and small companies.

For these measures defining a market can be hard, exposing the user to claims of arbitrary decisions.

2. Market Indices. These are related to elasticity measures in that they rely on or are influenced by the underlying shape and slope of both firm and market, demand and supply curves. While such an indicator can serve as a gauge of exercised (as opposed to potential) market power, it is one dimensional since it only accounts for a single aspect of the degree of competition. Other indexes of this type do measure the potential market power, indicating how much control of a market the company has regardless of the character of marketwide demand. With either approach, values must be assigned to one or more variables that are extremely difficult to measure.

Structural Indicators of Competition.

Market Concentration. The basis for most common concentration measures includes sales, employment, assets, and value added. Caution must be used in selecting and interpreting these elements, and one general problem is that the object of measurement is obscure. A useful measure must combine and weigh the inequality of both firm size and number. All concentration measures are largely empirical; concentration and competition are not synonymous, and how much one implies the other is debatable.

Such a tool can provide useful information in an easy to see format, and is good for initial examination. It does not generate the type of shorthand description which enables meaningful comparisons between all industries.

The "4 Firm Concentration Ratio" may be the most common concentration index, providing the percentage of market base held by the four largest firms (or 8 out of 20). It provides a simple statement about the "fewness" or "manyness" within an industry, which is preferable to a single count. However, it does not account for differences in structure within the top (4 or 8) group; distribution of market shares can vary widely within such group.

The "Herfindahl Index," on the other hand, does account for both the number of firms in an industry and the size inequality among them. It requires a large input of data for all firms within the industry. There are also no statistical tests of significance, which makes it difficult to draw inferences about changes in the index over a period of time.

3. Other relevant issues in market behavior assessment. Barriers to market entry and market conduct should be addressed when market behavior is a concern. Market barriers include absolute cost advantages, economies of scale and scope and product differentiation. But, measurement and assessment can be difficult. The most widely used performance measure for market conduct is the rate of return to owner's equity. Persistent excess profitability is a plausible "symptom" of monopoly power, although the absence of excess profits does not necessarily mean that no monopoly power exists.

The rate of return is a less certain measure of monopoly power than some market indices or elasticity measures. At best rate of return may indicate the likelihood of some monopoly power, but does not measure it directly.

POSSIBLE NEXT STEPS

Status Quo

This is not as bad, or as contrary, as it may sound to some people. It would seem that the current situation in Kentucky is not so bad. Non-residential, large volume customers connected to gas distribution systems have access to the competitively-priced spot gas market; and, they are able to transport their gas over intrastate pipelines at prices and conditions which presumably are reasonable to them. These customers can also secure gas supplies from the LDCs as needed. Gas prices for residential customers, at least on the five large gas LDCs, is reasonable when compared to prices in many other states.

Deliverability of gas has seldom been a problem; again, though, at least on the five large distribution systems. The LDCs have done a better than credible job in maintaining and operating their pipelines to assure safe and reliable gas deliveries to the burner tip; many would say the job has been excellent. The Commission has not identified any loud voice representing the residential classes clamoring for a choice of supplier. So, why tinker?

Realistically, though, this approach should probably only be selected in conjunction with incentive programs. This would provide both the utility and the customers opportunities to benefit from competition; perhaps enable the utility to compete more effectively, while preserving more traditional rate of return/rate base review on other aspects of the utility's operations. But, this does not provide choice to the residential and small commercial customer. How important is the issue of choice?

Pilot Residential Programs

The Commission could approve pilot programs for residential transportation, and in a somewhat controlled manner offer some or all of an LDC's residential customers choice in their supplier. This would determine how important choice is to these customers. Pilots could be done for one or more LDCs, and cover a part or all of an LDC's system. The process through which these programs would be approved could vary: an LDC may want to submit a proposal, or the Commission could mandate that programs be submitted in such manner by a specified date.

Alternatively, the Commission could provide guidelines, or standards, within which LDCs would be encouraged to file proposals. The "selected issues" list is an example of

at least some of the issues which would need to be addressed in a pilot program application.

The use of collaboratives should be strongly encouraged, whether to produce a pilot residential program or to develop a broader unbundling plan. The LDC, marketers, representatives of residential customers should be the principals, but others may be appropriate to include. Such efforts seem to make a difference when used in other states.

While numerous issues relate to the design and implementation of a pilot program, the informal discussions seem to indicate that most parties see many of the same issues and concerns which must be addressed and resolved to successfully implement a pilot. Experiences in other states will be very helpful in deciding upon the proper scope, length and participation levels for a pilot. Satisfactorily addressing many of the questions raised in this report would go a long way toward a successful pilot.

Broad Unbundling

This course of action would simulate Georgia legislation recently passed and signed by the Governor, and gas unbundling legislation which has been introduced in Pennsylvania. Some differences exist, but in each a date certain exists by which time the LDCs must unbundle all rates and services; and, ultimately, relinquish the merchant function. The commissions in each state maintain a monitoring and oversight role, and are required to make certain determinations or certifications, regarding markets or suppliers, for example. In each case the distribution system remains subject to Commission jurisdiction.

In Georgia, an LDC submits an application requesting to come under alternative regulation; once commission approved, it provides the framework within which the clock is set in motion regarding participation of additional suppliers and the process through which the market is considered competitive. When that point arrives, however, residential customers must choose a supplier and the LDC no longer provides a merchant service.

Pennsylvania's proposed legislation would require LDCs to file an unbundling program to the state commission by the end of 1997. The legislation provides a process which can result in the LDC no longer supplying gas, and only maintaining and operating the distribution system for all qualifying suppliers.

It is noted that in each of these states, and probably in most other states where all-encompassing gas unbundling programs have been proposed, legislation was the vehicle used to initiate the action.

Incentive Programs

Can placing all or some of an LDC's operations under incentive programs, in place of unbundling, accomplish similar objectives for both the company and residential customers? A properly designed cost savings/earnings sharing program can induce an LDC to become more efficient in the provision of its services. Such a program has little or no relaxation of regulatory authority, yet still provides additional incentive to the LDC to perform.

A further step toward incentives is a price cap regime, which allows the LDC to operate more like a competitive player in the market. With limited restrictions (price caps) imposed by the Commission on pricing flexibility, and no earnings restrictions, this type of program represents the last step for a utility toward parity with its nonregulated competitors.

Incentives may be most appropriate if the goal is to get the LDC to operate most efficiently. If product and service variety, with flexibility, are desired then unbundling may be more effective. What if both are desired goals?

CONCLUSION

This report has presented many of the issues which must be discussed regarding whether and how to proceed with residential unbundling. Some initial conclusions are drawn in some areas, and numerous questions are raised in discussing many of the issues.

Among the stakeholders there are differing opinions regarding the wisdom of moving ahead with residential unbundling. Some see no benefits; others believe that choice itself represents value to residential customers, and in a competitive market innovations will occur to the benefit of all customers.

What the next step should be in Kentucky regarding customer choice is still open to debate. Some courses of action are presented here as a way of initiating thought and comment on what, if anything, should be done. It is hoped this report will be the starting point for additional discussion on whether residential unbundling is the next step for customer choice in Kentucky.

APPENDIX
RESPONSE SHEET

Name _____ Phone _____

Organization _____

Address _____ E-Mail _____

Comments

Feel free to enclose additional comments if you wish.