

DYNAMIC MARKET ANALYSES
FOR TRANSITIONAL UTILITIES:
A ROLE FOR EVOLVING COMMISSIONS

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EXECUTIVE SUMMARY

To the extent practicable, customer choice should drive the market for competitive utility services in telecommunications, electricity, and natural gas. But customer choice is not a worthwhile end in and of itself unless choice is meaningful. Meaningful customer choice maximizes consumer welfare; that is, consumers are better off either because they value the services they are receiving more highly than the services that they received before, or because they are receiving the services that they received before at a lower price, or both. There are two types of market failure that can prevent meaningful customer choice: external market failure and internal market failure. External market failure results from a market structure that limits competitors and hence limits the number of choices. Internal market failure concerns conduct and behavior, particularly unfair trade practices and consumer protection abuses. When an internal market failure occurs, customer choice cannot be meaningful because of consumer deception or fraud. Unfortunately, external and internal market failures tend to feed on each other. Bad conduct leads to fewer competitors, which in turn makes bad conduct more likely to reap rewards for the companies that remain.

If commissions undertake utility-specific market monitoring and evaluation, looking at industry-specific information on market structure and conduct and performance, they can complete a dynamic market analysis. Once commissions have identified industry-specific problems, they can address them and put in place policy that promotes meaningful customer choice for each competitive utility service sector.

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FOREWORD

A major mission of state commissions is to design strategies and policies that ensure that the transition to competitive utility markets is short, smooth, and successful. This report outlines the market issues that arise in transitional utility markets that commissions need to consider if consumers are to have the full-range of choices they deserve.

Sincerely,

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BACKGROUND AND INTRODUCTION

Traditionally, the main function of a state public utility commission was setting rates. As utility services become more competitive, there is a widely recognized need for state commissions to undergo transformation.¹ But the key question is: what is the goal or purpose of the transformation. Here we look to the results of two National Association of Regulatory Utility Commissioner (NARUC) Summits.² At these Summits, the NARUC Commissioners concluded that the new public utility environment should be consumer-driven. They also concluded that special attention should be given to market analyses so that state commissions can identify workably competitive markets, emerging competition, tight oligopolies, and residual monopoly markets or services. In

¹ During the writing of this report, there were two NRRI reports on the need of state public utility commissions to undergo a transformation in order to stay relevant in the changing, more competitive environment. Generally, see David W. Wirick et al., *Transforming Public Utility Commissions in the New Regulatory Environment: Some Issues and Ideas for Managing Change* (Columbus, Ohio: The National Regulatory Research Institute, 1996); and David W. Wirick et al., *Organizational Transformation: Ensuring the Relevance of Public Utility Commissions* (Columbus, Ohio: The National Regulatory Research Institute, 1998). A third transformation report was published in November 1999, while this report was being revised. See David W. Wirick, *New Models of Regulatory Commission Performance: The Diversity Imperative* (Columbus, OH: The National Regulatory Research Institute, 1999).

² For the results of the two NARUC Commissioners Summits generally, see *Missions, Strategies, and Implementation Steps for State Public Utility Commissions in the Year 2000: Proceedings of the NARUC/NRRI Commissioners Summit* (Columbus, Ohio: The National Regulatory Research Institute, 1995); and *Proceedings of the Second NARUC/NRRI Commissioners Summit* (Columbus, Ohio: The National Regulatory Research Institute, 1998).

addition, they concluded that core customer protection is a continuing responsibility of commissions. The Summit commissioners desire state utility regulation, to the extent feasible and practicable, to be reoriented to enable consumer-driven provision of utility services. Customer choice should drive the market for utility services.

In a customer-driven utility services environment, customers can make rational choices about their utility services with as complete a menu of service options as the market can support. In other words, we are pursuing an overall mission of protecting consumer sovereignty in a way that maximizes consumer welfare in mixed, partially-competitive, partially-noncompetitive utility service markets.

But customer choice is not a worthwhile end in and of itself unless the choice is meaningful. Meaningful customer choice maximizes consumer welfare; that is, consumers are better off either because they value the services they are receiving more highly than services that they received before, or because they are receiving the services that they received before at a lower price, or both.

For customer choice to exist in a manner that maximizes consumer welfare, two preconditions must be met.³ One is a market structure in place that allows each customer to have a full range of available suppliers from which to choose. For this to occur there must be at least workable competition. Anything less is an “external market” or market structure failure. If the market is a tight

³ There are two types of market failure that can prevent customer choice from being exercised in a manner that maximizes customer welfare. External market failure occurs when market structures limit the number of competitors (and hence the number of choices). Internal market failure concerns consumer protection and unfair trade practices. When an internal failure occurs, customer choice is not meaningful because of consumer deception or fraud.

oligopoly, or even a loose oligopoly where one firm acts as the dominant firm, then there probably is not the full range of available suppliers from which to choose. Workable competition is often defined as there being no fewer than five firms in the market, where no firm possesses more than 20 percent of the market and no firm can significantly influence price for a significant period of time.⁴

The second precondition is that markets must be free from internal market failure resulting from any of the following categories of unfair trade practices that are also a violation of consumer protection laws in most states: covert coercion, undue influence, deception, incomplete information, or needlessly confusing information.

Many electricity, natural gas, and telephone services are no longer purely monopoly services. Many are becoming more competitive, and some are even becoming workably competitive. Nevertheless, competition is not workable in all utility service markets. Even where utility markets have the potential of being workably competitive, such markets will require ongoing oversight to make certain that anticompetitive behavior, either conduct that would be exclusionary under antitrust laws or unfair trade practices, does not occur.

Without ongoing regulatory oversight, incumbent utilities or their affiliates could eliminate service options by driving otherwise economically efficient competitors out of the market. Incumbent utilities or their affiliates might do so, in part, by shifting costs. Costs might be shifted to core customers by shifting

⁴ For a complete discussion of the current state of thought in economics and law on how one identifies when markets are workably competitive, that is, the competition that exists is sufficient to prevent the exercise of market power, see David Chessler, *Determining When Competition Is "Workable": A Handbook for State Commissions Making Assessments Required by the Telecommunications Act of 1996* (Columbus, Ohio: The National Regulatory Research Institute, 1996).

costs of competitive services to regulated, noncompetitive services.

Alternatively, incumbent utilities or their affiliates might attempt to raise the costs of competitors who must use some or part of regulated services to reach the customers. This might be done by charging more for wires or conduits to reach the customer or by having exceedingly difficult and costly interconnection requirements.

There is a need for commissions to conduct an ongoing form of market analysis that is more complete and dynamic than that usually done. The form of market analysis being described here is one which looks at both the external market for market structural failures and at trade practices for internal market failures. This form of market analysis makes use of the economic and legal principles of both antitrust laws, which address external or market structure failures, and consumer protection and unfair trade laws, which address internal market failures. In addition, a more complete and dynamic market analysis recognizes that one category of market failure can either lead to or reenforce the other.

With external or market structure failures, for example, there cannot be as broad a menu of consumer choices as there would be if the market were workably competitive. Of course, to judge whether there are external or market structure failures, a variety of economic tools are available each with its own strengths and weaknesses. These include the Herfindahl-Hirschmann Index (HHI) in its pure form and as modified by the DOJ Guidelines, the Lerner Index, the Landes-Posner Index, four-firm and eight-firm concentration ratios, as well as market dominance analysis. In circumstances where there is an external or market structure failure, commission staff might examine whether there are underlying barriers to entry that are either regulatory in nature or artificially put in

place by the incumbent utility or its affiliates to slow entry of competitors.

Questions that might be addressed include:

- Are there regulatory barriers of entry that could be eased for competitors?
- Is the incumbent or its affiliate shifting costs to core customers?
- Is the incumbent in some manner raising the costs of competitors?
- Is there any form of exclusionary conduct that disfavors competitors in their efforts to provide service?
- Is the incumbent or its affiliate finding a way to covertly coerce customers to choose them?
- Are they exercising undue influence or deception?
- Are they providing incomplete or needlessly confusing information about the customer choice process and/or other competitors?

The point is that certain practices constitute unfair trade practices or violate consumer protection principles. When committed by an incumbent utility or its affiliate in a concentrated market, assuming there are either barriers of entry or exit, these practices might be functionally equivalent to anticompetitive, exclusionary conduct because they forestall meaningful customer choice. Rules may need to be in place to make certain that the incumbent or its affiliate cannot shift costs to new entrants or discriminate against new entrants on interconnection rules or services through regulated wires or conduits.

Alternatively, if competitors are engaging in any of the categories of unfair trade practices (using covert coercion, undue influence, or deception to undermine meaningful customer choice, or by influencing customer choice by providing incomplete or needlessly confusing information), then there might be a need for overall market codes of conduct. These could involve anti-slamming

and anti-cramming rules, such as are in place in the telecommunications arena or they could involve standardized labeling, perhaps stating the environmental (air pollution) impact and/or fuel source of power as well as its reliability.

In order to be effective in their oversight, state commissions and their staffs need to undertake ongoing analyses of the utility service markets for each of the three sectors that are currently becoming more competitive; namely, telecommunications, electricity, and natural gas. For utility services in each of the sectors, there are generic issues that commission staff should be prepared to address. The first is to determine the expectations for utility service performance in each utility sector. Without some expectations on how competitive utility services should perform, it is difficult to judge how well competition is working. Second, staff should be prepared to handle a number of major potential problem areas that will be generic. In particular, because many utility services will initially be provided in markets that are concentrated, commissions will need to consider strategies that would tend to mitigate or offset potential cost-shifting problems. These strategies include accounting separations, functional unbundling, corporate or structural separation (requiring the use of affiliates for competitive services), affiliate codes of conduct, and divestiture of competitive service assets. Market codes of conduct might also be needed. In addition, there is a need to determine just what information is required to do a market analysis for each of the utility sectors' service markets. This information would allow the commission to determine whether there are external market structure problems and/or internal market failures, due to unfair trade or consumer abuses.

In the second, third, and fourth sections of this paper, market analysis issues are identified that are specific to each utility sector market. Each section

begins with a description of the general features of the utility sector as it is being restructured. Then it identifies the major market-problem areas and suggests what should be monitored, including the information requirements and important questions to ask. The final section draws some overall conclusions for state commissions about the importance of providing an ongoing market analyses function that is combined with its consumer protection function in order to provide customers of utility services with meaningful choices.

TELECOMMUNICATIONS INDUSTRY

As a result of changes in technology and law, telecommunications markets are evolving from a monopoly environment toward a competitive one. The Telecommunications Act of 1996 was intended to reduce the level of regulation and remove barriers to competition in all telecommunications markets so that consumers could benefit from greater choice, lower prices, and more rapid deployment of new technologies and advanced services. The idea was that consumers would benefit if territorial and line-of-business restrictions were eliminated. Incumbent local exchange companies (ILECs) were allowed to offer local service outside their traditional boundaries as well as interexchange⁵ and cable television services; cable television service providers were allowed to offer telephone service; and interexchange companies (IXCs) were allowed to offer

⁵ Although the Telecommunications Act of 1996 cleared the path for regional Bell companies to offer interexchange services, Section 271 of the Act provided that the Bell Operating Companies (BOCs) would have to demonstrate state-by-state that their local markets were open to competition in order to obtain permission to offer inter-LATA toll service in their home regions. They had previously been able to offer intra-LATA toll services in addition to local telephone services.

local service. In addition, competition was expected from wireless providers, and former competitive access providers (CAPs) were expected to transform themselves into competitive local exchange companies (CLECs) and offer a variety of services.

Removing legal and administrative barriers to entry, however, doesn't automatically make markets competitive. Competition is emerging in local access markets, but it is far from being fully developed, especially for residential customers. Relatively few households have a legitimate alternative to the ILEC for local access. Competition in the intra-LATA toll market is growing, and equal-access rules requiring that customers be allowed to designate someone other than their ILEC as their primary inter-LATA carrier will enhance the level of competition in those markets. Moreover, although there is competition in inter-LATA toll markets, the level of competition in those markets should increase considerably once the BOCs are able to offer that service. Nevertheless, competition in most local and intra-LATA markets is in its early stages of development; the ILECs still serve the vast majority of access lines; their network facilities and services serve as linchpins; and entrants must obtain a variety of services from them. Therefore, state commissions have a crucial and indispensable role in managing and facilitating the transition toward competition.

The role and function of commissions are also undergoing a transition from retail rate regulation—whether the traditional rate-of-return or cost-of-service regulation or incentive and/or price-cap regulation—towards market regulation. The commission is taking on a referee function, which includes setting rules of the game, imposing penalties, and protecting consumers. This is especially important in telecommunications because the ILECs' networks are

likely to serve as linchpin networks as we evolve toward the intermeshed networks or “network of networks” model. Entrants are in the position of purchasing services from and interconnecting with the established ILECs with whom they must compete for retail customers’ business.

What Should Market Analysis Include?

Among the functions of market analysis in telecommunications are: market monitoring and evaluation; policy design; market structure, conduct, and performance analysis; and information collection.

Market Monitoring and Evaluation

An important task under the rubric of market monitoring and evaluation is analyzing merger and acquisition proposals for possible anticompetitive effects and public interest effects—asking whether, on balance, a merger or acquisition is likely to provide positive benefits for consumers, and proposing mitigating arrangements, if necessary. Mergers or acquisitions that would tend to significantly increase market power or significantly reduce competition should be resisted or conditions should be imposed to mitigate deleterious results.

A second important task is examining the effect of affiliate transactions. Traditional regulatory concerns about affiliate transactions include cost shifting from competitive customers and services to residual monopoly customers and services and profit shifting from regulated to unregulated operations. Newer concerns include the potential for preferential treatment of affiliates or discrimination against affiliates’ competitors.

In addition, joint ventures and cross-marketing arrangements should be examined for possible anticompetitive, discriminatory, or exclusionary impact. An important question is whether an alliance between an ILEC and another carrier (for example, an IXC) might lead to an exclusive arrangement that others cannot duplicate. Another is whether the ILEC's marketing clout or brand name is unduly used to promote an allied provider.

A third task is examining interconnection arrangements and pricing agreements to ensure that they promote, or at least do not hinder, legitimate competition. Related to this task is the function of establishing, monitoring, and enforcing carrier-to-carrier quality-of-service (QOS) standards so that entrants are not disadvantaged.

A fourth task is performing a state-level analysis as to whether a BOC has met the requirements under Section 271 and should be allowed to offer in-region, inter-LATA service, so that the commission can give its advice to the Federal Communications Commission (FCC). Indeed, performing the Section 271 review provides a good opportunity for evaluating the status of competition in the state and making policy changes if necessary.

Policy Design

Another market analysis function is designing policies so that policy goals can be met. The assumed goals include creating a pro-competitive environment, facilitating customer choice, limiting the ability to exploit market power, treating similar players alike (and dissimilar players differently, recognizing inherent advantages arising from incumbency), and facilitating "fair"

competition.⁶ The goal of pro-competitive policies is consumer choice and welfare, not the success of any particular technology or provider.

Because firms differ in their ability to exercise potential market power, one of the tasks involves determining appropriate forms and levels of asymmetric regulation to be applied to dominant firms. Indeed, in the telecommunications sector considerable effort has been expended in developing interconnection, unbundling, and resale requirements that are imposed on the ILECs but not on other providers. Other areas of possible asymmetry include differential degrees of pricing flexibility and tariffing requirements. In addition, the quality-of-service standards may be different for the ILECs than for the CLECs.

A related policy design task involves determining criteria for eliminating or reducing dominant firm asymmetric regulation and/or declaring services to be competitive. This may require a service- or market-specific analysis, since competition will evolve differently across geographic and service markets.

Another policy design task is to establish codes of conduct and listing unfair trade practices that identify slamming, cramming, and flim-flamming behavior (including deceptive advertising/marketing/billing practices) and provide for a customer complaint resolution process. This task includes establishing consumer protection programs, which might include consumer information and education. It also involves establishing enforcement procedures to punish habitual violators.

⁶ Fair competition is a concept with different meanings. One definition expresses fair competition in terms of fair rules, where the success of service providers depends solely on their ability to satisfy consumers. This translates into new entrants having the same opportunities as incumbents to succeed while, at the same time, incumbents are not unduly encumbered in their ability to compete. What condition constitutes “same opportunities” is a debatable matter.

Other policy design tasks include establishing procedures to facilitate competition, including maximizing consumer choice through rules that require local number portability, intra-LATA equal access, “fresh look” provisions, and the possible use of customer lotteries or auctions and other policies.

Market Structure, Conduct, and Performance Analysis

Moving to competitive markets is a process, not an event. Therefore, it is important to watch for signs of monopoly leveraging into competitive markets and to monitor the progress of competition. Market conduct should be monitored and evaluated for signs of price leadership behavior that could indicate tacit collusion and lack of genuine competition. It is also important to monitor ILEC behavior toward entrants. Behaviors that should be monitored include: strategic use of the administrative/regulatory process such as stalling, delaying, or frivolously appealing interconnection negotiations; unrealistic interconnection and/or collocation rules; demanding to be “made whole” prior to competitive entry; providing poor quality service to competitors or their customers; engaging in anticompetitive pricing such as setting prices of unbundled network elements (UNEs) too high, requiring “tied” sales, or being unwilling to unbundle; and engaging in price wars to deter or repel competitive entry.

Another task is to evaluate entry and exit conditions to determine whether competition is viable and/or established. This includes monitoring the amount, rate, type (facility-based, resale, UNE), success, and sustainability of entry. It is also important to evaluate which ILEC facilities and elements are “essential” under the “necessary and impair” test so that they must be provided on an

unbundled basis. This includes considering the extent to which equivalent facilities or elements are available from other non-ILEC sources.

A third task is to perform analyses of market power. This might involve applying structural indicators (such as four-firm concentration ratios, or Herfindahl-Hirschmann Indices) or behavioral indicators (such as the Lerner Index). There are various indicators of market power. A good indicator should show an increase in market power if the relative size of the largest firm(s) increases and should provide a link to conduct and performance in the market.

It is also important to monitor and evaluate market performance directly. This includes monitoring the:

- time path of prices (competition should lower prices available to consumers),
- choices available to consumers (consumers should have more choice as competition increases),
- quality of service provided to consumers (quality of service should not decline and might improve—especially for customers willing to pay for it),
- new services available to consumers (more competition should lead to more new services and more rapid deployment of them),
- consumer satisfaction with prices and service quality and/or availability (the end result should be greater customer satisfaction), and
- extent and sustainability of competitive entry (for the consumer to benefit, entrants must offer a variety of services to business and residential customers in all geographic areas and be successful).

Information Collection

In order to engage in ongoing monitoring and evaluation of telecommunications markets, considerable information must be collected on a regular basis. Information requirements include prices offered to various types of consumers, market penetration levels by various providers (measured in customers/lines/revenues/minutes of use), amount of entry by type (resale of retail services, UNE platform or total service resale, facility-based, hybrid—combining facilities and UNEs), levels of facility investment (lines, switches, trunks, or others), and revenues.

This is a considerable amount of information, and its collection may not be necessary once competition is fully established. Until then, however, such information should be collected so that the course and impact of competition can be measured. Moreover, if analysis of market results shows that competition is not progressing rapidly enough or consumers are not benefiting sufficiently, commissions can develop or modify policies to enhance competition and increase consumer choice and welfare.

ELECTRIC POWER INDUSTRY

The recent electric power industry restructuring began with the enactment of the Energy Policy Act of 1992 (EPACT), which provided generators with open transmission access over transmission lines jurisdictional to the Federal Energy Regulatory Commission (FERC) and provided that new generation entities that

sold power exclusively at wholesale would be exempt from the burdensome provisions of the Public Utility Holding Companies Act of 1935 (PUHCA). This opened up the wholesale electricity markets to robust trading.

At the time wholesale markets opened up, there was excess generation capacity available, and as a result prices for wholesale power dropped. In the meantime several areas of the country, particularly California, New York, and New England, had extremely high retail electricity rates, mainly because of uneconomic nuclear generation capacity and/or uneconomic purchase power agreements that utilities had been required to enter into due to the provisions of the Public Utility Regulatory Policies Act of 1978 (PURPA). These states, and several others after them, passed legislation that provided for retail access to electric generation, either directly or indirectly through a state-run power exchange. As of this writing, twenty-four states have enacted legislation that has or will restructure the electricity industry to allow retail access to generation available on the markets; one state commission, the New York Public Service Commission, has done so administratively.

In anticipation of the possibility of direct retail access being authorized by states, the FERC issued Order 888, which provides that unbundled transmission is subject to FERC jurisdiction. The FERC also provided that there would be recovery of 100 percent of legitimate, prudent, and verifiable wholesale stranded costs (mostly uneconomic nuclear capacity, uneconomic purchase power contracts, and regulatory assets). Most state commissions that have dealt with this issue, although not required to do so, have reached a similar conclusion.

At this writing, only four states thus far provide direct retail access to generation. With the exception of Pennsylvania, retail residential competition has reached retail customers at only *de minimus* levels. A major reason for the

lack of retail residential access appears to be the barrier to entry by new competitors that is created by stranded cost recovery, which will prevent entry if collected in a manner that does not provide new entrants with any opportunity to recover both their out-of-pocket costs of generation as well as their capital recovery costs. The amount of residential retail access occurring in Pennsylvania is greater because the stranded cost recovery is spread over a longer period of time and the so-called “shopping credit” allows new entrants the “headroom” needed to recover both out-of-pocket and capital recovery costs.

Electricity cannot easily be stored and is produced or generated at the instant that it is consumed. Each electricity system operates as an interconnected grid with all sources of generation producing power in an alternating current—as a synchronous machine. We have three such interconnected grids: the eastern interconnection, the western interconnection, and part of Texas (ERCOT).

The unique nature of electricity requires that, within a single interconnection, all generators be operated in a coordinated fashion and that there be an operator who coordinates transmission and generation within each control area. To maximize the possible number of efficient transactions within an interconnection and to eliminate the effects of loop flows on such operators, there should be only one such operator for each interconnection.

Major Market Structure Problems

For those states that allow direct retail access to generators, there are major market structure problems. First, within each region there are numerous generators which can reach the retail customers during off-peak periods when

generation is abundant and transmission is not constrained. In most sections of the country the generation market is believed to be relatively unconcentrated during such unconstrained, off-peak periods. The Herfindahl-Hirschmann Index is believed to be below 2,500 and even below 1,000 in some areas. A market with an HHI below 1,000 is considered by nearly all to be indicative of a workably competitive market because there is the equivalent of at least ten equal size firms competing. Market dominance is thought by some not to be a problem, although more experience is required to judge the actual size of the market of generators that can deliver off-peak power economically, as well as whether market power can be exercised by bidding strategies by owners of both intermediary and base-load units or by other conduct.

On the other hand, in most regions of the country, generation is relatively concentrated among a few generation entities, mostly the incumbent utility or neighboring utilities within a region during peak usage periods, when transmission is relatively constrained. During these periods, the market structure is relatively concentrated and local and neighboring utilities have larger market shares because the size of the market for delivered power shrinks due to physical constraints on the transmission system. During these peak periods, HHIs might soar to 2,500 or more—a figure that indicates a concentrated market. Power cannot be delivered economically from great distances during these periods. Peak periods with transmission constraints are when most major market structure problems occur.

Information Required and Questions to Ask

State regulators intending to monitor these markets need information on the available transmission capacity (ATC) going into each geographic end-use

market (a generation point of receipt or POR) for both off-peak and peak periods of usage from each point of generation delivery (POD). State regulators need to know whether and under what conditions firm service might be interrupted and under what conditions interruptible service will be interrupted. Regulators also need to know the price of each type of generation service, each ancillary transmission service, and each type of transmission service under a variety of market conditions. This information needs constant monitoring.

In addition, there are potential vertical market power problems if the utility does not divest itself of its generation facilities. Without such divestiture, a utility might be tempted to operate its transmission system to favor native generation. Even if control of the transmission facilities is turned over to an independent transmission system operator (ISO), the incumbent utility will be tempted to dispatch its generation units in a manner that provides itself with market power because of the effect on the transmission system. This problem becomes acute when a utility that owns its own generation sets its own ATC. No amount of functional unbundling can prevent such a utility from favoring its own generation if it sees fit to do so.

There are also potential cost-shifting problems if a utility is providing both a regulated and a competitive service. Whether or not a separate competitive affiliate is required, the utility will necessarily seek to shift costs from the competitive entity to the regulated one. Close monitoring of an incumbent utility and its affiliates will be necessary. Even so, it might be that only divestiture is sufficient to ensure that market power will not be exercised to the detriment of meaningful consumer choice.

Finally, generation-owning utilities that also own transmission and/or distribution, either directly or indirectly through an affiliate, are likely to favor

themselves as opposed to competitors in the usage of their wires. This could be done by raising the interconnection requirements or by providing the competitor with an inferior quality of service.

Further it is expected that, as retail access takes firm hold, problems of cramming and slamming will develop similar to those in telecommunications and those now beginning to develop in the market for natural gas.

NATURAL GAS INDUSTRY

Over the last twenty years, the natural gas industry has relied increasingly on market forces to govern prices and other sectoral performance areas. The initial phases of industry transformation, initiated by federal legislation and regulatory actions, centered on the wellhead and the interstate pipeline functions. Most recently, competition has shifted to the retail sector, especially with the unbundling of services to small retail consumers. Unbundling creates an environment where consumers will be less protected by state regulation and more susceptible to the forces of the marketplace.

State commissions will assume a new role in protecting consumers against market abuses. New regulatory functions include market monitoring and evaluation. Market analysis is particularly important in view of the trend toward the formation of unregulated affiliates by gas utilities, and merger and acquisition activities. With the spread of industry transformation at the retail level, state commissions have the added responsibilities of assuring consumer benefits from competition, consumer protection from anticompetitive behavior and other market abuses, prevention or mitigation of the exercise of market power by individual firms, and the presence of "fair" competition. In undertaking

this new role, state commissions should rely on market analysis as an integral part of their overall legal obligations.

Potential Market-Power Problems

With the opening of retail gas markets, it becomes crucial for third-party service providers to have an opportunity to compete and for consumers to make well-informed decisions. In a well-functioning market, consumers should have real choices for naturally competitive services⁷ and have available to them information that is neither misleading nor confusing. Service providers should also have equal opportunities to compete, with no single provider able to control prices or engage in anticompetitive practices such as cross-subsidization.

Overall, in successful markets consumers receive products and services from the lowest cost or “best” providers and the providers themselves have strong incentives to be cost-efficient and responsive to consumers. Achieving these outcomes in the retail gas sector requires the absence of:

- burdensome barriers to entry for gas service providers, preferential treatment of an affiliate by a gas utility or discrimination against nonaffiliates,
- poorly-informed consumers,
- above-market prices for competitive services,
- service provider deception and other abuses,

⁷ Naturally competitive services refer to those services that can economically be provided in a market by a “number” of firms competing with each other.

- inadequate consumer protection from service-provider abuses, and
- gas utility leveraging into naturally competitive markets.⁸

Specific Areas of Monitoring

In monitoring retail gas markets, a state commission may want to collect information on the various aspects of market performance. Ten major ones include: (1) the number of marketers willing to enter a choice program, (2) the number of consumers participating in a choice program, (3) the price paid for competitor services such as commodity gas in relation to the market price (for example, spot price), (4) the market share of individual service providers, (5) specific barriers to entry,⁹ (6) the number of consumer complaints and how they are handled, (7) marketers' and other service providers' complaints, (8) gas utility compliance with code-of-conduct rules, (9) treatment of nonaffiliates by a gas utility, and (10) transfer prices for goods and services transacted between a gas utility and its affiliate.

The accumulation of the above information should provide the data for evaluating market performance. Evaluation to discern a malfunctioning market, of course, requires additional information and analysis. For example, a low number of consumer participants in a choice program may simply be the result of the low price and high service quality being provided by the incumbent gas utility. As another example, an above-spot-market price for gas contracted

⁸ A gas utility may, for example, leverage its monopoly position in distribution to give an advantage to its unregulated marketing affiliate.

⁹ As discussed later, some barriers to entry may be harmful to consumers while others may not.

between a marketer and a group of consumers may reflect the preference of these consumers for price stability.

Important Questions to Ask

Commissions conducting a market analysis for the natural gas sector should first ask the right questions.

Some of the key questions that a market analysis could address include:

- Are gas utilities giving unfair advantages to their affiliates?
- Is the fact that utility affiliates or other marketers maintain high market shares necessarily a problem?
- What are the reasons for consumer complaints?
- Are consumer complaints being handled satisfactorily?
- What market problems will likely emerge over the next few or several years?
- Are the commission's codes of conduct effective in preventing abuses? If not, how should they be modified?
- Should gas utilities remain in the gas merchant business?
- Why are more marketers not entering choice programs?
- Why are more small consumers not participating in choice programs?
- Should additional gas services (for example, billing and/or metering) be unbundled?

- Would mergers and acquisitions involving in-state gas utilities produce higher prices for gas consumers?¹⁰

Barriers to Entry

Barriers to entry are a major reason why markets do not always function well. Barriers can affect the speed and cost of entry into the marketplace. Barriers to entry have the effect of reducing an industry's efficiency and benefits to consumers.

Barriers to entry are intertwined with the concept of "fair competition," which can be interpreted as the situation where all firms have the same opportunities to compete for consumers; one condition for effectuating fair competition may be that all firms face the same rules.

Whether a barrier to entry requires mitigation or elimination depends on its long-term effect on consumers. For example, patent protection represents a barrier to entry, but it is rationalized on the basis that it stimulates inventions and innovations beneficial to consumers.¹¹ A market analysis should differentiate those barriers to entry that are harmful to consumers (that is, those labeled here as "anticompetitive barriers") and those that are not.

¹⁰ The relevant question in recent merger and acquisition antitrust cases is whether the larger firm would have the ability to raise prices. Regulatory reviews of mergers and acquisitions face the challenge of distinguishing the situation where a larger firm would achieve substantial cost savings that could not otherwise be achieved from one where the intent is to exercise market power with few or no cost savings.

¹¹ Another barrier to entry is technological conditions that preclude competition, such as in the local "pipes" sector, thereby requiring some form of regulatory price controls.

Examples of anticompetitive barriers include unnecessarily burdensome certification rules for marketers, vertical foreclosure by the local gas utility, discriminatory pricing and access rules for local “pipes” service, leveraging of a gas utility’s market power in “pipes” to give an inequitable advantage to its affiliate, and discriminatory transmittal of vital consumer and system operations information by the local gas utility.

Barriers to entry that may not be anticompetitive in terms of harming consumers are difficult to identify and subject to much debate. Examples include a utility affiliate gaining market shares because of scope economies; price discounts and other discriminatory actions dictated by pro-competitive market forces; a marketer gaining market share because of name recognition or reputation for good service; and consumer inertia allowing an incumbent utility to retain a high percentage of its customers.

An Example: Utility-Affiliate Relationship

Marketers and others have identified potential problems arising from a gas utility’s relationship with its marketing affiliate. These include cost shifting, brand-name transfer from a utility to its affiliate, customer and system information withheld from nonaffiliated marketers, discriminatory transfer pricing,¹² and consumer education bias. Consumer education bias occurs when the local gas utility provides information designed to steer consumers to the utility’s affiliate.

¹² What constitutes discriminatory transfer pricing has been hotly debated at recent NARUC committee and subcommittee meetings.

Evidence in support of the above problems would include: (1) over-allocation of costs to a gas utility, (2) misleading or incomplete consumer-education information generated by a gas utility, (3) vital utility information on consumers and system operations unavailable to nonaffiliates, (4) transfer prices below incremental costs (for a utility-to-affiliate) transaction and/or above stand-alone cost (for an affiliate-to-utility) transaction, and (5) brand-name transfer to an affiliate without clarification. Clarification would require, for example, the gas utility conveying clearly to consumers that they would not receive any advantages in terms of more reliable distribution service when purchasing gas from the utility's marketing affiliate.

Key Factors of Appropriate Policies

In mitigating market problems, consideration should be given to the source of the problem and the inevitable tradeoff between different social objectives. For example, poorly designed regulatory incentives may motivate cost-shifting and cross-subsidization within a vertically integrated corporate organization. The appropriate regulatory action may lie with eliminating these incentives rather than imposing stricter and detailed regulatory rules. On the other hand, eliminating other market abuses may require the establishment of certain rules such as codes of conduct.

Mitigating against a particular market abuse may lead to lost efficiencies, which can harm consumers. For example, prohibiting transactions between a gas utility and its affiliate may erase any scope or other "integration" efficiencies that would otherwise exist. Offsetting efficiencies can occur when attempting to avoid a market problem. It becomes both an empirical and policy question as to whether retail gas consumers would be better or worse off. A key objective of

any regulatory decision is to protect consumers against market abuses without sacrificing potential efficiency gains.

CONCLUSIONS

It is not yet possible to presume the pipes, wires, and conduits that are necessary to deliver utility services are workably competitive. As such, utility services in the restructured industry sectors of telecommunications, electricity, and natural gas remain a mixture of workably competitive and noncompetitive services. Given this commonality, state commissions are urged to consider undertaking a comprehensive and dynamic form of market analysis. Such an analysis would have as its objective and rationale the creation and fostering of a customer-driven market environment where customers make rational choices from as complete a menu of service options and service providers as the market can support. This is the definition of a market that has as its goal consumer sovereignty that maximizes consumer welfare. Any other goal will lead to a suboptimal result: consumers will not get the maximum value from their utility services. To achieve this goal, utility services for which customers are given a choice in a restructured industry must be at least workably competitive, with markets that are free from external market structure problems in addition to internal market failure.

To pursue this goal, commissions are beginning to abandon ratemaking as the principal basis of their structure and organization, and to embrace instead meaningful consumer choice. (Of course, there will still be some ratemaking functions in water and for the regulated wires and conduits.) Organizationally,

commissions can use the consumer complaint function, not only to resolve individual complaints, but to detect patterns of internal market failure and market misconduct. A commission may also want to consider establishing a market performance division to examine market structure issues. As shown in Figure 1, information from the consumer division about patterns of internal market failure and market misconduct might be provided to the market performance division, which would already be examining information on market structures for external failure. By examining industry-specific information as a whole, a cohesive group of commission experts can conduct a more complete and dynamic market

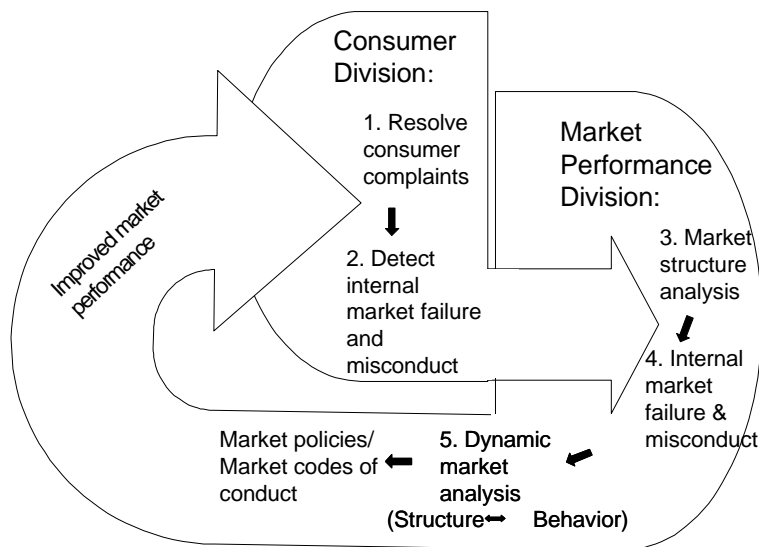


Fig. 1: A dynamic market analysis to identify problems and to set policies that promote meaningful customer choice.

DYNAMIC MARKET ANALYSES FOR TRANSITIONAL UTILITIES

analysis that identifies industry-specific problems. Once identified, the commission can address these problems and set policies that promote meaningful customer choice in the telecommunications, electricity, and natural gas service sectors.