PUBLIC SERVICE COMMISSION OF WEST VIRGINIA
General Investigation to determine whether
West Virginia should adopt a plan for open
access to the electric power supply market
and for the development of a deregulation plan.
Case No. 98-0452-E-GI

Measures to Ensure Fair Competition and Protect Consumers In a Restructured Electricity Industry in West Virginia

Prepared for
The Consumer Advocate Division

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1. Introduction and Summary

In early 1997 the Public Service Commission of West Virginia (the Commission) issued an order to obtain input on issues related to the introduction of retail competition in the electricity industry. Many interested parties participated in a series of workshops that were held throughout 1997 and 1998.

On December 23, 1998, the Commission issued a procedural order to schedule evidentiary hearings to address the retail competition issues in more detail. In the first phase of the hearings, the Commission identified two broad issues to address:

1. Certification, licensing, bonding, etc. of competitive electric suppliers; reliability of power supply; universal service; and consumer protection.

   Assuming that new suppliers will be allowed to offer power supply delivered through the facilities of federal and state regulated transmission and distribution utilities (transport utilities), what rules, regulations, regulatory oversight policy or statutory authority should be in place to protect the consumers' interests?

2. Code of conduct.

   Assuming that affiliates of transport utilities, or the transport utilities themselves, will be offering power supply to customers on the utilities' monopoly transport system, what code of conduct for dealings with competitive suppliers and dealings with customers should be enforced by the Commission?

The purpose of this report is to address these electricity industry restructuring issues. It is a companion piece to testimony filed on behalf of the Consumer Advocate Division in this proceeding. While we recognize that the Commission will have to make a fundamental, threshold decision concerning whether restructuring of the electric utility industry in West Virginia is in the public interest, our analysis begins with the assumption that restructuring will take place.

In preparing this report, we rely upon the reports prepared by the various subcommittees in the workshops held throughout 1997 and 1998. We also rely upon similar proceedings that have occurred in other states that are considering or are introducing retail competition in the electricity industry.

It is difficult to discuss the issues of certification, reliability, universal service, consumer protection and codes of conduct without first discussing the future structure of the electricity market. Accordingly, we begin with an explanation of why divestiture of generation assets is necessary to mitigate vertical market power and promote a fully competitive electricity market. In the absence of divestiture, vertically integrated electric utilities would have too much opportunity to influence the ability of competing generation companies to gain access to the transmission and distribution (T&D) system. Just the perception of market power abuse by a vertically integrated utility is likely to dampen the competitive market by discouraging potential market entrants. Divestiture, on the other hand, creates a clear, immediate, and permanent boundary between the

operator of the transmission and distribution system and the competing generation companies.

Divestiture alone will not eliminate the potential for vertical market power problems. Distribution utilities that have affiliated generation companies create many of the same risks of anti-competitive behavior and cross-subsidization. We recommend that generation marketing companies that are affiliated with a distribution utility be strictly prohibited from selling power within that utility's service territory. As an alternative but less desirable approach, the Commission could impose a temporary ban on the generation affiliate of at least five years. At a minimum, the Commission should require that generation companies limit their operations within an affiliated utility's service territory to a maximum of 20 percent of the total energy market.

In Section 3 we describe some key principles to use in designing a code of conduct. In sum, we note that codes of conduct offer only very limited protection from anti-competitive behavior, they are difficult to monitor and enforce, and they are easy to circumvent. Consequently, we recommend that the Commission establish codes that are clear and comprehensive, promote greater separation between a utility and its affiliate, and prohibit many types of transactions that could lead to anti-competitive behavior. We also recommend a specific code of conduct to be used in West Virginia, by building upon the code proposed by the "Competitors' Subcommittee" during last summer's workshop sessions.

We then describe the importance of licensing standards as a means of ensuring that retail electric suppliers offer quality services to customers at fair terms and conditions. Licensing standards should seek to achieve an appropriate balance between filtering out non-viable applicants, while not creating barriers to entry that could stifle competition.

In Section 5 we recommend that the Commission require all distribution companies to file annual reports documenting a number of reliability and service quality issues. If the Commission observes a deterioration in reliability or service quality over time, then it should adopt comprehensive performance standards, including penalties for inferior performance. We also recommend that a supplier of last resort be established to ensure that all customers have constant access to generation services, but that retail electricity suppliers bear the responsibility for any costs associated with not meeting their obligations to provide generation services.

We then describe some key measures to protect the interests of low-income customers in a restructured electricity industry. In sum, we support continuation of the 20 percent low-income rate discount, and introduction of a low-income system benefits charge dedicated primarily to low-income energy efficiency and weatherization services.

Finally, we describe some of the critical elements necessary for providing customers with the information necessary to make meaningful choices among electricity suppliers. Both a well-designed consumer education program and requirements for uniform information disclosure are necessary to ensure customer participation, to protect customers from misleading marketing efforts, and to maximize the potential benefits of a competitive electricity market.

2. Promoting Effective Competition Through Divestiture of Generation Assets

2.1 The Importance of Divestiture for Mitigating Market Power

One of the greatest challenges in restructuring the electricity industry, anywhere in the United States, arises from the difficulty in establishing sufficiently competitive markets in an industry that has been dominated by large, vertically integrated monopolies for so many years. A market requires certain important conditions in order to be fully competitive. There should be no barriers to entry or exit; there should be many buyers and many sellers; there should be a free flow of information about the products in the market; and there should be no cross-subsidization between regulated and unregulated companies. In sum, no actor in the market should have market power that would enable it to limit the extent of competition. These conditions simply do not exist in today's electricity industry, and will not be easy to achieve in the near- to mid-term future.

The divestiture of generation assets is one of the most important steps necessary to begin developing a competitive electricity market. In the absence of divestiture, the vertically integrated utilities would own and control the transmission and distribution system that forms the backbone and the bottleneck for the generation market in which they would compete. This type of vertical integration of bottleneck monopoly facilities with competitive businesses can be expected to produce anti-competitive behavior.

Experience in the electricity industry indicates that utilities will tend to exploit their control and ownership over transmission and distribution systems. The Federal Energy Regulatory Commission (FERC) has catalogued in detail the propensity of vertically integrated utilities to abuse their market power. (FERC 1995, pages 65-85)[1] FERC's observations include the following:

> In the past, transmission-owning utilities have discriminated against others seeking transmission access... Transmission-owning utilities have denied access by outright refusals to deal... More often..., however, discrimination is likely to be manifested more subtly and indirectly. One such way would be (delaying negotiations until) the window for the customer's trade opportunity has closed. Another way is to substantially change the terms of negotiated agreements through protracted delay including filings with regulatory agencies. Another way... is to allow access but only on noncomparable or unsupportable terms and conditions that are inferior to the conditions (available to) the transmission owners themselves (such as refusing network services, denial of postage stamp rates, denial of priority service, insisting on long scheduling lead times, denial of flexibility in the use of firm transmission capacity, provision of inferior ancillary services, requiring onerous deposits, and requiring double payments in lieu of reciprocity)... Finally, an additional way for

[1] Full citations for references used in this report are provided in Section 8.

> transmission-owning utilities to frustrate access and competition is by granting each other superior rights and lower rates, in pools, interconnection agreements and other protocols. (FERC 1995, pages 71-78, extensive citations to specific cases omitted here.)
>
> In today's emerging competitive wholesale power markets, the practices of some transmission-owning utilities are unduly discriminatory and anti-competitive. These practices produce market distortions today. (FERC 1995, page 81.)

In those states where retail competition is being introduced to the electricity industry, regulators recognize the need to divest generation assets in order to mitigate market power problems. Utilities in, California, Connecticut, Illinois, Maine, Maryland, Massachusetts, Montana, Nevada, New Jersey, New York, Pennsylvania, Rhode Island have divested, or are in the process of divesting, their generation assets, and more utilities are expected to follow suit.

It is sometimes argued that structural separation can achieve the same objectives as divestiture of generation assets. This argument holds that utilities could place their generation assets in separate corporate entities, and codes of conduct can be used to ensure that the transmission and distribution utility does not conduct any anti-competitive behavior with its affiliated generation company.

Structural separation is not a valid alternative to divestiture of generation assets. Divestiture creates a clear, immediate, impermeable and permanent boundary between the transmission and distribution utility and the generation companies. Such a boundary cannot be achieved through structural separation supported by codes of conduct.

Codes cannot possibly anticipate all the myriad transactions between a utility and a generation affiliate that might represent anti-competitive behavior -- especially as the market is changing and past practices may not be a good indication of future practices. In order to be effective, codes of conduct require a great deal of regulatory oversight and enforcement, something that may not be practical in today's regulatory climate or in the future. Utilities can easily circumvent codes of conduct without being detected.

Even at best, if sufficient regulatory oversight is available, codes of conduct can only be enforced in a reactive fashion. Market power abuses can only be identified after they have occurred. The remedies used to address code violations may not be sufficient to fully undo the market power problem, or may simply be applied too late to remedy the damage that has been caused in the market. Divestiture of generation assets, on the other hand, is a more proactive approach, where market power abuses are prevented before they even occur.

In the absence of generation divestiture, potential competitive generation companies are likely to assume that there is a high risk of market power abuse from the incumbent utility. This perception alone, regardless of the intent of the incumbent utility or the capacity of the regulators to enforce codes of conduct, can have a significant dampening effect on new entrants to the market and on competition in general.

Furthermore, divestiture offers regulators the additional benefit of determining a market value for a utility's generation assets. Divestiture can eliminate the uncertainty associated with an administrative determination of stranded costs, and therefore can help resolve one of the more contentious issues arising from electricity industry restructuring.

2.2 The Role of the Distribution Company In Marketing Generation Services

Divestiture alone does not resolve all the market power problems that can arise from the monopoly transmission and distribution utility. Many T&D utilities have established, or are seeking to establish, affiliates to market generation services in the competitive marketplace. This affiliate relationship between a competitive generating or marketing company and a regulated distribution company creates many of the same market power problems described above. Some of the problems may be less severe if the generation affiliate serves a smaller share of the generation market than the vertically integrated utility would serve. Nonetheless, the same problems exist, and the market may not be fully competitive. Furthermore, codes of conduct for transactions between the utility and its affiliates will not be sufficient to eliminate these problems, for all of the reasons described in the previous section.

Therefore, generation marketing companies that are affiliated with a distribution utility should be strictly prohibited from selling power in that utility's service territory -- even if that utility has sold off all of its power plants. Such a prohibition represents the only clear and effective means of preventing vertical market power abuse by the utility that owns and controls the T&D system that is so essential to the sales of generation services.

If regulators are reluctant to permanently prohibit generation marketing companies from competing within the service territory of an affiliated distribution utility, then they should consider a temporary ban of not less than five years. A temporary ban would create a transition period for new entrants to gain a foothold in the generation market without the perception or risk of being subject to market power abuse by the distribution utility. At the end of such a transition period, regulators could review the activity of the market to determine how well it has developed and whether the risk or perception of market power abuse by the distribution utility would have a dampening effect on competition.

Finally, if regulators are reluctant to impose such a comprehensive permanent or temporary ban on affiliate marketing, then at a minimum they should limit the extent to which a generation marketer can operate within an affiliated distribution company's service territory. The affiliated marketing company should be prohibited from serving any more that 20 percent of the total energy sales in an affiliated distribution company's territory. This constraint would limit the amount of damage that could result from market power abuse, and would provide competitive generation marketing companies with assurance that at least a portion of the market would remain free of market power problems.

Regulators will need to establish codes of conduct for affiliate transactions, regardless of the extent of divestiture or the extent to which a generation marketer can operate within an affiliated distribution company's service territory. These codes would apply to

whatever generation transactions might transpire, as well as to transactions for other competitive services, such as energy management services, energy efficiency services, billing and metering services, etc.

3. Codes of Conduct Pertaining to Affiliate Transactions

3.1 General Principles in Designing Codes of Conduct

In designing codes of conduct, regulators should recognize that profit-making corporations, by definition, will seek opportunities to gain competitive advantages in the marketplace. Aggressive efforts to gain competitive advantage are a natural element of a competitive market, and one of the ingredients that can, in theory, bring about the benefits of competition.

An unregulated affiliate of a regulated utility can similarly be expected to aggressively seek competitive advantages in the markets that it operates within. However, if any competitive advantages are obtained through its relationship with the utility, then the affiliate will be placing its competitors at an unfair disadvantage. Aggressive, competitive behavior that would be considered natural and desirable in most markets can become undesirable anti-competitive behavior if the competitor has an affiliation with a regulated utility.

Consequently, the most important point to keep in mind while designing a code of conduct is that utility affiliates will seek to maximize the advantages of their relationship with the utility -- up to the limits imposed by regulatory intervention. This type of behavior is a natural outcome of a competitive market. If such behavior were not present, then regulators should be concerned that the market is not sufficiently competitive.

Therefore, regulators should establish codes of conduct that are based on the presumption that utility affiliates will engage in anti-competitive behavior unless they are prevented from doing so. Such codes should be comprehensive, and should clearly prohibit activities between a utility and its affiliates that might lead to unfair competitive advantages. This fundamental principle is used to guide all of our recommendations below.

The second guiding principle to consider in designing codes of conduct is that they are easy to ignore, misinterpret, bypass, or otherwise abuse. Experience to date with the deregulation of the telephone, gas and electric industries indicates that utilities can and will find many opportunities to circumvent codes of conduct. (See, for example, Bradford 1998, Jones 1998 and Schuler 1999.) Consequently, regulators should always lean toward greater separation of services (e.g., divestiture of generation assets or prohibitions on providing unregulated services), and rely less heavily upon codes of conduct to prevent anti-competitive behavior.

The third guiding principle pertains to balancing the two goals of reducing costs and promoting competition. In many of the code of conduct issues, there is a conflict between reducing the costs to a utility and its affiliates, and promoting greater competition. Utilities argue that by allowing greater freedom for affiliate transactions

(e.g., through corporate support, sharing of facilities, joint purchasing, sharing of employees) they will be able to operate at lower cost, and that ratepayers and customers of the affiliate will benefit. However, some of these affiliated transactions create a risk of anti-competitive behavior.

In seeking to balance these two competing goals, regulators should clearly favor mechanisms that promote greater competition. Increasing competition is the ultimate goal of the code of conduct. More importantly, it is not necessarily true that ratepayers or affiliate customers will benefit from reduced costs resulting from affiliate transactions. As the California Public Utilities Commission found in its affiliate transaction order:

> [I]t is not clear that the near-term savings that result, for example, from joint utility and affiliate procurement, would actually translate into lower prices for consumers or ratepayers... [T]he assumption that competition would require a single firm to pass along cost savings must assume the corollary that most competing firms obtain comparable cost savings. A firm which has a singular competitive advantage, for whatever reason, may retain extraordinary profits for some period rather than pass them through in the form of lower prices. Or, if an affiliate's costs are lower than other market participants or potential entrants, it could use this cost difference to undercut bids to drive out incumbents or to prevent other potential competitors' entry. (CA PUC 1997, pages 10-11)

The fourth guiding principle to use in designing codes is to recognize that codes of conduct can be difficult to monitor and enforce. During the course of typical business operations, utilities and affiliates can undertake many types of activities that naturally go unobserved by regulators, competitive marketers or customers. Consequently, utilities and affiliates will tend to have many opportunities to circumvent codes of conduct without being detected. This fact reinforces the need for regulators to rely more heavily on greater separation of utilities and affiliates, and less heavily upon codes of conduct. It also requires that codes of conduct contain sufficient provisions for (a) utility reporting of affiliate activities, (b) regulatory monitoring of compliance with the codes, (c) procedures for processing complaints and resolving disputes, and (d) sufficient penalties for non-compliance. The overall goal of such provisions should be to prevent abuse of affiliate relationships before they occur, rather than respond to those that happen to be noticed over time.

3.2 Specific Issues to Address in Designing Codes of Conduct

A review of recent codes of conduct in the electricity industry highlights the key issues to be addressed, as well as those issues where there tends to be significant disagreement among various parties. This section provides an overview of those key issues, with recommendations for how they should be resolved.

Applicability

It is important to clearly define the scope of activities that codes of conduct will apply to. At a minimum, they could simply be applied to any competitive generation services

provided by a utility affiliate. They could be expanded to include all energy-related services provided by a utility affiliate, including, for example, energy management services, energy efficiency services, appliance sales and repairs, and maintenance of electrical equipment. The scope of the codes could be expanded further to include non-energy-related services, such as cable TV, internet access, and telephone services.

Utilities sometimes argue that there is no need to apply codes of conduct to non-energy-related services. They note that they do not have market power in non-energy-related services, and that codes might even create a barrier to entry in those non-energy markets. They also note that non-energy service transactions are frequently covered by existing state and federal laws that govern affiliate transactions.

We recommend that codes of conduct be applied as broadly as possible, to address both energy- and non-energy-related services provided by utility affiliates. Otherwise, regulated utilities may be able to cross-subsidize unregulated affiliates in non-energy-related activities. There are many opportunities for a utility to support the operations of non-energy-related services through ratepayer money, without being detected or addressed by a commission, competitors or customers -- e.g., through sharing of facilities, sharing of employees, or sharing of information. Not only would such activities be unfair to ratepayers, they could stifle the development of competition in the non-energy market of concern.

In addition, utilities should have an obligation to maximize the value of their assets, in order to minimize their stranded costs. Consequently, regulators should ensure that ratepayers are compensated for any services or benefits that a utility offers to an affiliate, regardless of whether the affiliate is providing energy-related services or not. Finally, it can be difficult to clearly delineate between energy- and non-energy-related services. For the sake of clarity, the codes should cover all services provided by utility affiliates.

Non-Discrimination

The principle of non-discrimination requires that the utility shall not provide preferential treatment to its affiliates, or to customers of its affiliates. This means that if a tariff provision allows for utility discretion, that discretion will be applied equally to all market participants. It means that if a utility offers any form of discount to an affiliate, it will offer the same form of discount to all market participants. It means that a utility should process requests for services in the same manner and the same timeframe for all market participants.

The principle of non-discrimination also means that the utility should be precluded from certain activities that will benefit the utility's affiliate, but that cannot or will not be shared with all market participants. For example, a utility cannot assist its affiliate with business development activities, such as providing business leads, soliciting business for the affiliate, sharing market analyses or customer information with the affiliate, or otherwise acting on behalf of the affiliate. In addition, a utility cannot tie or condition the provision of any type of service or discount to the taking of goods or services from its affiliates.

Disclosure of Information

By virtue of their position as monopoly suppliers of essential goods and services, utility companies have developed extensive databases of information on their customers, which are extremely valuable assets unavailable to the public or to any other business entity. Codes of conduct must ensure that any such customer information that is provided to a competitive affiliate must be made available on a non-discriminatory basis to non-affiliated competitors. In the event that a customer authorizes the utility to provide information to an affiliate, by prior written consent, the same information must be provided to all those competitors authorized by the customer to receive it.

Similarly, utilities should only be allowed to provide customers with information regarding competitive retail electricity suppliers if explicitly requested by the customer. If any such information is provided to a customer, it should include information about all competitive suppliers in a non-discriminatory fashion.

Whenever a utility provides public information to its affiliates, and is required to provide such information to all non-affiliates on a non-discriminatory basis, the information should be made easily accessible and provided to all parties simultaneously. Where appropriate, the utility should post such information on its internet web site, with a direct and obvious link to its home page.

Separation of the Utility and Its Affiliate

As described in Section 2 above, the best way to avoid anti-competitive behavior is to prohibit a utility's affiliates from operating in the same service territory as the utility. If such activity is not prohibited, then codes of conduct should be designed to assure as clean and clear a separation as possible between a utility and affiliates.

There are many areas of business where the utility should be kept separate from its affiliates. First, they should be separate corporate entities, with separate books and records. Second, utilities should not be allowed to share office space, office equipment, materials, services or other systems with their affiliates. Third, utilities should not be allowed to purchase any goods or services jointly. Some commissions allow joint purchases of goods or services that are not related to the traditional utility merchant functions. We recommend that such joint purchases not be permitted, because of the difficulty of defining the different functions and monitoring the purchasing practices.

Third, utilities should not be permitted to share employees with their affiliates in any way that provides the affiliate with an unfair competitive advantage. Employees should be prohibited from temporarily transferring between utilities and their affiliates. Employees should also be prohibited from permanently transferring from the utility to a competitive affiliate. Some regulators permit permanent transfers but include language in the code of conduct that employees must be expressly prohibited from using information gained as an employee of the utility in any way that could provide a competitive advantage to the affiliate or could be a detriment to a competitor. However, It is not possible to effectively monitor or enforce this approach. There is no way to prevent employees from using information gained from the utility in an anti-competitive manner, and regulators will not be able to detect this sort of activity.

At the time of generation asset divestiture, it may be appropriate for utility employees that manage and operate power plants to be transferred to the generation or marketing affiliate. Codes of conduct should allow for this sort of transfer, but should prohibit employee transfers after the point of divestiture. In addition, the codes should not allow any employee to transfer if he or she has been working with critical information and knowledge that can be used anti-competitively in the retail market.

Fourth, there should be clear limitations on the amount of corporate oversight, governance and support systems that utilities are allowed to provide to their affiliates. Only the top officers of a company, who will have responsibility for subsidiaries and affiliates, should be allowed to serve both the holding company and its subsidiaries. Board members and corporate officers serving the holding company should only be allowed to also serve either the utility or its affiliate, but not both. Any such shared corporate services should be tracked, reported, priced and conducted within the terms and spirit of the code of conduct. Certain corporate services should not be shared at all, including engineering, financial, electricity purchasing, systems operation, and marketing.

Utilities frequently argue that joint activities, such as sharing equipment, sharing in-house expertise, and joint purchasing, will lead to reduced costs, and that these reductions will eventually benefit ratepayers and the customers of the affiliate. As described in Section 3.1 above, it is not at all clear that any such cost reductions will flow through to any customers, and there is a significant risk that they will lead to market power abuse. Therefore, we recommend that such joint activities be prevented to the greatest extent possible.

Joint Advertising and Marketing

Many parties agree that utilities should be prohibited from participating in joint advertising or joint marketing activities with their affiliates. However, utilities frequently argue that their affiliates should be allowed to use the utility name, logo or good will in their marketing and promotional efforts.

Regulators have adopted various positions on the use of a utility's name or logo by an affiliate. In Maine, utility affiliates that wish to use a utility's good will must purchase it from the utility. (ME PUC 1998) In California and Massachusetts, regulators have allowed affiliates to use a utility's name and logo, as long as there are sufficient disclaimers, such as "the affiliate is not the same company as the utility," or that no advantage will accrue to the utility customer as a result of dealing with the affiliate. (CA PUC 1997; MA DTE 5/1998)

We recommend that utility affiliates be completely prohibited from using the utility's name or logo in any way. This applies to all promotional materials, such as printed advertisements, spoken advertisements, and information printed on workers uniforms and trucks. Use of a utility's name or logo results in joint advertising that can give unfair competitive advantages to the utility affiliate and create barriers to entry to competitors. Requiring the affiliate to compensate the utility for the good will is insufficient, because of the difficulty in assessing the full value of the name and logo in a new market. Requiring disclaimers on advertisements does not eliminate the competitive advantages,

can lead to customer confusion, and can provide opportunities for affiliates to bypass the intent of the codes of conduct.

This last point has been highlighted by recent experience in California. After lengthy debate, the Commission decided to allow the use of a utility's name and logo, as long as it was accompanied by a disclaimer. Commissioner Conlon dissented from this position, arguing that the use of a utility's name, logo or good will can provide affiliates with a powerful advantage, that brand identification can be a barrier to entry and can lead to significant market power abuse, and that many marketers may be deterred from competing in such a market. (CA PUC 1997)

Since the California codes of conduct were enacted, PG&E Energy Services issued an advertisement in many major news publications where the disclaimer was made essentially illegible by the typeface used, and by the fact that it was printed vertically on the page. The Commission subsequently levied a $1.68 million penalty on PG&E Corp. shareholders. PG&E has threatened to appeal the Commission's fine. (Schuler 1999)

The primary lesson from this experience is that conditions (such as disclaimers) imposed through codes of conduct are not as effective as outright prohibition, because regulators cannot anticipate all the ways that such conditions can be circumvented. In this instance, the damage to the competitive market has already occurred -- regardless of the outcome of the appeal of the fine -- because the advertisements were printed in some prominent publications (such as the Wall Street Journal, Business Week and the San Francisco Chronicle) before the Commission had the opportunity to correct them. Codes of conduct should be comprehensive and clear enough to prevent such abuses before they happen.

Transfer of Goods and Services Between a Utility and Its Affiliate

To the extent that utilities and their affiliates are allowed to exchange goods and services, it is important to ensure that the regulated utility does not provide the affiliate with a competitive advantage by providing goods and services at rates that are below market value. Otherwise, the utility would be cross-subsidizing its affiliate. Similarly, transfers from the affiliate to the utility should be priced at the lower of the fair market value or the costs to produce the goods and services.

If a utility and its affiliate transfer goods or services that are not typically sold on the open market, then it may be difficult to establish a fair market value. In such cases, a transfer from the utility to its affiliate should be priced at the fully loaded cost to the utility. Transfers from the affiliate to the utility should be priced at the lower of fully loaded costs or an estimate of fair market value.

Monitoring and Enforcement

Given that utilities and affiliates undertake numerous transactions that affect each other, that utilities and affiliates can be expected to push the boundaries of codes of conduct, and that codes of conduct tend to be easy to circumvent, regulators should establish sufficient monitoring and enforcement provisions to support the codes. The overall goal of such provisions should be to prevent abuse of affiliate relationships before they occur.

The codes should include reporting requirements that provide regulators and others with information to detect any infringement of the codes as quickly as possible. Utilities should be required to record all transactions with affiliates, file compliance plans with regulators, and notify regulators of important new developments such as the creation of a new affiliate. Such information should be made available to non-affiliates simultaneously through the utility's internet web site, where appropriate.

Regulators should require a complaint procedure and dispute resolution process that allows for complaints to be heard and resolved in a timely and efficient manner. The process should be designed to ensure sufficient participation and representation from both the utility and the complainant, and should provide the complainant the right to take the complaint to the PUC if unsatisfied with the results. The utility should keep a log of all complaints and their resolution, and make the log publicly available on its internet web site.

Finally, regulators should be able to require remedial actions to address any violations of the codes. There must be clear and enforceable sanctions that take into account the nature, extent, and gravity of the violation, as well as any good-faith efforts by the utility to redress its violations. These sanctions should include financial penalties and referral to entities such as attorneys general or federal anti-trust agencies when appropriate. Penalties should be substantial enough that utilities do not consider them to be less than the potential financial gain of the violation of the code.

3.3 Recommended Code of Conduct for West Virginia

As a part of this on-going general investigation into retail competition in West Virginia, a subcommittee was established to report on codes of conduct and affiliate transactions. The subcommittee was composed of most of the West Virginia electric utilities; Enron; the Heating, Ventilating and Air Conditioning Association (HVAC Assoc.); and the National Electrical Contractors Association (NECA). These parties subsequently split into two groups: one composed of the electric utilities (referred to as the Utilities) and one composed of Enron, HVAC Assoc., and NECA (referred to as the Competitors). In July 1998, each of these two groups prepared its own version of a code of conduct for West Virginia.

We recommend that the Competitors' proposal be used as the basis for a code of conduct in West Virginia. This proposal is far more comprehensive than that of the Utilities, and conforms much more closely to the general and specific principles outlined above.[2] The Competitors' proposed code of conduct is included in this report as Attachment 1.

However, there are a few areas where the Competitors' proposed code could be enhanced to provide greater assurance that anti-competitive behavior will be mitigated in a restructured industry in West Virginia. In the following paragraphs we recommend several modifications to the Competitors' proposal.

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[2] The Competitors' apparently used the California code of conduct as a starting point for their proposal. (CA PUC 1997) Other states (e.g., New Jersey and Connecticut) also use the California code as a starting point for their own codes.

Posting of information on web sites. Some provisions of the Competitors' code of conduct require that, if utilities make certain information available to affiliates, it must be made available to unaffiliated competitors as well. For example, information about a local distribution company's goods, purchases, sales or operations should be made available to affiliates and non-affiliates alike. As another example, information regarding discounts provided to affiliates should be made available to non-affiliates as well. We recommend that in all instances where the code of conduct requires publicly-available information to be provided to all interested parties, that the information be posted on the utility's web site, and that the information be located on a page that is directly and conspicuously linked to the utility's home page.

Posting of additional information. The code of conduct should also specify additional information that the utility must make available to all interested parties. Utilities should be required to make available a list of all affiliated interests, including business addresses and telephone numbers of at least one office associated with each affiliated interest. (ICC 1998) If a utility offers an affiliate a discount of any sort, it should be required to post a "discount report" that includes details about whom the discount was provided to, the amount and type of discount, quantities involved, delivery points, other conditions and requirements, and procedures by which non-affiliated entities may request a comparable offer. (CT DPUC 1998; MA DTE 5/1998; NJ BPU 1999)

Such additional information should be posted on the utility's web site. In addition, competitive retail electricity suppliers should be able to place standing requests, whereby they would automatically be informed of new or updated information or reports, based on areas of interest that they specify in advance. (ICC 11/1998)

Open books and accounts. The Competitors' proposed code of conduct requires that distribution companies maintain separate books, accounts and records from any affiliated companies. It is also important to include language stating that the books and records of the utility and affiliates shall be open to inspection by the Commission, its Staff and the Consumer Advocate Division, particularly with respect to transactions between the utility and its affiliates. (CA PUC 1997, CT DPUC 1999)

Prohibition on employee transfers. The Competitors' proposal does not allow a utility and its affiliate to jointly employ the same employees, with the exception of corporate support. However, it does allow a distribution utility employee to be permanently transferred to an affiliate company. Any employee that is transferred to an affiliated company is prohibited from using proprietary property or information gained from the utility in a way that would benefit the affiliate or be to the detriment of unaffiliated competitors. We recommend that the code of conduct completely prohibit the transfer of employees between a utility and its affiliates -- after the utility has divested its generation assets.

If the Commission decides to allow employees to be permanently transferred from the utility to an affiliate company, then at a minimum the affiliate company should be required to compensate the utility for the expertise obtained. This can be achieved, for example, by requiring the affiliate to make a one-time payment to the utility of an amount equal to a certain percentage (e.g., 25 percent) of the employee's base annual salary. (CA PUC 1997)

Limitations on corporate support. The Competitors' proposed code allows a utility to share with its affiliates corporate support services, such as corporate oversight, governance, support systems and personnel. We recommend that the code establish more clear boundaries for what type of corporate support might be shared. The codes should include language that states that corporate officers and board members cannot be shared, except that if an electric distribution company and its affiliates are controlled by a holding company, then a board member or corporate officer may serve the holding company and either the electric utility or its affiliate, but not both. (CT DPUC 1999) Furthermore, utilities should be required to list all such shared corporate employees in any code of conduct compliance filing with the Commission.

Prohibition on joint purchases. The Competitors' proposal prohibits a utility and its affiliates from making joint purchases of goods and services associated with the traditional utility merchant function. However, it does allow for joint purchases in other areas, as long as they are appropriately conducted, priced and reported. We recommend that all joint purchases be prohibited. It is too difficult to draw a clear boundary between the traditional utility merchant function and other functions. Joint purchases might result in subtle and undetectable forms of cross-subsidization between regulated and unregulated companies.

Limits on investments in affiliates. The West Virginia code of conduct should place certain limits on how much of an investment a utility can make in its affiliates. We recommend that the code of conduct prohibit a utility from investing more than five percent of its capitalization in an affiliate, without specific commission approval. Such a commission approval cannot be granted if the utility's bond rating is below investment grade or if the utility has recently filed for, or been granted, a temporary rate increase. (ME PUC 1998)

Provision of competitive services. The Competitors' code of conduct is silent on the issue of whether and how a utility might be allowed to offer new or competitive products and services (e.g., metering and billing). We recommend that the West Virginia code of conduct include a section that describes the extent to which a utility can offer new or competitive services. The code should require that all new products and services must be provided through affiliates. The code should also require that a utility may only offer products and services that are currently being provided, or unbundled versions of existing utility products and services. In addition, all utility products and services should be offered on a tariffed basis. (CA PUC 1997)

Regulatory oversight and enforcement mechanisms. We recommend that the West Virginia code of conduct include additional language regarding regulatory oversight and enforcement mechanisms. The code should include provisions that enable violations to be detected as soon as possible, and allow for expeditious resolution of complaints and disputes. For example:

- Each utility should be required to maintain a manual documenting its cost allocation methodology. (ME PUC 1998) This manual should be filed with the utility's compliance plan, and be made available to the Commission, its Staff and the Consumer Advocate Division.

- In its compliance plan, each utility should be required to demonstrate the specific mechanisms and procedures that it will have in place to ensure that it is not utilizing the holding company or any of its affiliates to conduct anti-competitive behavior or to circumvent the code of conduct. (CT DPUC 1999)
- The complaint procedure and the complaint log should be posted on the utility's web site.
- Among the other penalties available to it, the Commission should have the ability to revoke the supply license from a retail supplier that is affiliated with a distribution company, in the event of repeated violations of the code by the supplier.

4. Licensing Standards for Competitive Power Suppliers

Purpose of licensing standards

During the transition to a competitive retail market, all customers should be protected from unfair dealings by retail suppliers (including aggregators, generators, marketers and any entity that deals directly with retail customers). In order to provide this protection, regulators should require all retail suppliers to be licensed and should have rules in place that will levy sanctions on any supplier that violates licensing standards.

The purpose of such rules is to ensure that retail electric suppliers offer quality services to customers at fair terms and conditions. For example, consumers who participate in a competitive market may be newly subject to financial risk. If suppliers require an up-front payment before a service or product is delivered, consumers will risk losing that money to "fly-by-night" operators or scam artists.

As another example, licensing standards should help to minimize abuses such as slamming (the unauthorized switching of customers from one supplier to another) or cramming (the addition of products or services not ordered by a customer to those that were ordered). Slamming is a serious problem resulting from long-distance telephone deregulation, and cramming has recently become a problem as well. These practices are more than unfair to customers -- they also damage consumer confidence, which could lead to diminished interest in choosing a competitive supplier.

Specific Issues to consider in designing licensing standards

In order to achieve a competitive market, there should be many firms competing to provide service. Therefore, supplier licensing regulations should not create barriers to entry that could stifle competition. Barriers to entry could include prohibitively high licensing fees, burdensome informational requirements, and unrealistically high standards for technical acuity and financial soundness.

Rather, licensing regulations should serve as a screen to filter out applicants that are unable to provide reasonable assurance that they will be viable in a competitive market. Those applicants that present a business plan based on solid financial support backed up by sufficient technical plans should be considered viable.

Once suppliers are licensed to do business, the licensing standards must be upheld and enforced through sanctions. Those sanctions must be severe enough to minimize business fraud and prevent mistreatment of customers. Sanctions could include monetary fines, the proceeds of which could be used to remedy any harm done to consumers; probation or temporary cessation of marketing activities; and loss of license. While financial penalties should be considered an option for some offenses, fines may not be effective if potential profits are high. Therefore, regulators should have the option to revoke the supplier's license. If market participants take unfair advantage of consumers, they should lose the right to do business in the state.

Recommended licensing standards for West Virginia

During the workshop meetings in 1998 a subcommittee developed a "Sample Application Form for Parties Wishing to Offer, Render, Furnish, or Supply Electricity or Electric Generation Services to the Public in the State of West Virginia" (Sample Application). Retail suppliers should complete, and comply with, the Sample Application in order to be able to provide power in the state of West Virginia. The Sample Application is included with this report as Attachment 2.

The Sample Application essentially embodies the requirements that should be imposed on retail suppliers through licensing standards. However, these requirements should be made explicit by regulations that specifically identify the standards and criteria that must be met in order to obtain a license. For example, the Sample Application requires applicants to disclose whether they have applied to FERC for Power Marketer status; regulations should indicate if this disclosure is for informational purposes or a prerequisite for license approval. In addition, the Commission should emphasize the importance of the bonding provision by stipulating that cancellation or expiration of the bond furnished for license approval would result in automatic suspension of license. Further, the Commission should make clear the intent to use bond proceeds to rectify any harm done to consumers by a particular supplier, and the process by which that remedy would be imposed.

The Commission should make some important changes to the proposed licensing requirements implied by the Sample Application. First, the application should include an affidavit stating that the applicant agrees to participate in dispute resolution as outlined in the regulations to resolve complaints by customers that cannot be solved through informal discussions. Some level of detail regarding the dispute resolution process should be incorporated into the regulations. Second, regulations should require disclosure of all consumer complaints pending against the applicant. This information should be made publicly available on the supplier's web site.

Finally, licensing standards regulations should outline the conditions that must be met in order for retail suppliers to maintain a license in good standing. Suppliers that do not maintain a license in good standing would be subject to the various remedial actions and penalties available to the Commission. The regulations should spell out just how such remedial actions and penalties would be applied, and under what conditions. The conditions that must be met in order to maintain a license in good standing should include, at a minimum, the following:

- The licensee should abide by reliability standards established by the North American Electric Reliability Council, as well as those established by the local independent system operator, or other agency responsible for operating the transmission system.
- The licensee must comply with any applicable codes of conduct for affiliate transactions between regulated utilities and competitive affiliates.
- The licensee must comply with consumer education and uniform information disclosure requirements established by the Commission.
- The licensee must comply with any other consumer protection measures established by the Commission, such as standards to prevent slamming and cramming.
- The licensee must comply with any standards established by the Commission regarding billing practices and termination of service.

5. Reliability of Distribution and Generation Services

5.1 Reliability and Quality of Distribution Service

In a restructured electricity industry, distribution companies will no longer have the same obligation to serve that they have today. However, they will continue to have an obligation to provide distribution services to all customers on a non-discriminatory basis. These distribution services should be adequate, safe, reliable and efficient, and should be provided at the lowest long-term cost to society. For these reasons, continued regulatory oversight of distribution companies will be important.

In a restructured electricity industry, there is a risk that a distribution company's quality of service and reliability might decline over time. This risk is particularly great if the distribution company is subject to long-term price caps, formulas that limit price increases, or other forms of performance-based ratemaking (PBR). In order to reduce operating costs and increase profits, distribution companies may be tempted to cut corners on those operations and expenses that are necessary to maintain reliability and high quality of service.

Many regulators have found that service quality from telephone companies deteriorated after the industry was deregulated, and that traditional regulatory approaches to monitoring and responding to service quality and reliability problems were insufficient. (Alexander 1998) Regulators that establish PBR mechanisms for telephone, electric and gas utilities tend to include quantitative reliability and customer service indices that can be tracked over time to monitor the performance of the utility company. Penalties in the form of customer rebates or reductions in profits can be applied to encourage utilities to maintain performance, and to redress any deterioration of service quality.

We recommend that the Commission begin immediately tracking and monitoring the reliability and quality of service of the state's electric utilities. If retail competition is

introduced, then the Commission will have a historical baseline with which to compare future levels of reliability and quality of service. The Commission could then consider whether it would be appropriate to establish a set of service quality performance standards, with penalties to be applied if the standards are not met.

The Commission currently requires utilities to submit reliability reports to its Staff on an informal basis. These reports include information on the frequency and duration of service interruptions. We recommend that these reports be expanded to include more indices of service quality, that they be submitted on a more formal basis, and that the Commission provide greater regulatory oversight to the data provided.

There are a number of service quality indices that would be useful to include in the annual reports to the Commission. Some indices should be established to monitor the utility's procedures for satisfying customers' demand, such as indices that measure the company's response to telephone calls, appointments missed, estimated (as opposed to actual) meter readings, time required for installations and repair service, billing errors, or number of complaint calls made to the utility or the Commission. Surveys can also be used to measure the degree of customer satisfaction. (Biewald et. al., 1997)

Some indices should be established to monitor power quality, which includes various characteristics such as voltage stability, spikes, transients, flickers, sags, surges, and harmonic distortion and noise. There are few indices currently available to monitor these characteristics. One option is to measure momentary outages (i.e., outages of less than five minutes duration). (Biewald et. al., 1997)

Job safety should also be monitored over time. Possible indices include number of violations of a state safety regulation or of the National Electrical Safety Code, frequency of accidents as reported to the Occupational Health and Safety Administration, and the number of employee days lost due to accidents on the job. (Biewald et. al., 1997)

Finally, it will be important to establish indices to monitor a distribution company's practices with regard to serving other actors in the competitive market, including generation companies, marketers, aggregators, brokers, metering companies, billing companies, and energy service companies. It will be especially important to monitor these practices if the distribution company has affiliates that will be receiving services alongside competitive entities, in order to ensure that such services are provided in a non-discriminatory fashion. (Biewald et. al., 1997)

5.2 Supplier of Last Resort

In order to ensure that all customers have access to adequate generation services, it will be necessary to identify one or more entities as a supplier of last resort. The supplier of last resort would be obligated to provide generation services to all customers who have problems in obtaining power from the competitive market for any reason. Such customers might include, for example, those refused service by a generation company, those whose supply contract is canceled on short notice for any reason, those who need supply during a transition in location, those whose supplier stops doing business, and those whose supplier has its license revoked. (Alexander 1998)

The supplier of last resort should be distinguished from suppliers designated to provide a "standard offer" to those customers who do not choose alternative power suppliers. The obligations of the two types of suppliers should be different, and the pricing structure for the two types of supply should also be different. Furthermore, it may be appropriate to assign these two responsibilities to different entities. For example, under many restructuring scenarios, the regulated distribution company may be the most appropriate entity to be the supplier of last resort, but may not be the best option for providing standard offer services.

Regardless of who acts as the supplier of last resort, customers should have the ability to access this power without being penalized with excessive prices or transaction charges. Similarly, the supplier of last resort should not be penalized for filling in where some competitive power supplier was unable to meet its obligation. These goals can be achieved with the following provisions:

- The customer should be charged no more than the price of the power that he or she had contracted to purchase from the original competitive power supplier.
- The supplier of last resort should be allowed to fully recover any costs associated with that power.
- Any loss that might be incurred by the supplier of last resort should be recovered from the supplier that was unable to provide power.
- Any gain that might be obtained from the difference in price between the back-up power and the originally contracted power should be returned to the customer.

In addition, regulators should establish standards that will ensure that the supplier of last resort acts in the best interests of all parties. For example, the supplier of last resort should be required to obtain power at the lowest possible price, by using competitive procurement practices to the greatest extent possible. Customers should not be charged initiation or termination fees for purchasing from the supplier of last resort, as long as the purchase was involuntary. Suppliers of last resort should be allowed to include a one-page insert in the bills sent to the customer by the local distribution company. (MA DTE 2/1998)

6. Protection of Low-Income Customers

In restructuring the electric industry, it is important to ensure that all customers have access to adequate, reliable, safe, efficient and affordable power. Achieving this goal can be particularly challenging with regard to low-income customers, because of their particular needs and because of some unique market barriers facing them.

Most legislators and regulators in states that are in the process of electricity restructuring have established policies and mechanisms to protect the interests of low-income customers -- both by extending existing low-income policies and establishing new ones specifically designed to address concerns raised by restructuring. Such measures typically include rate discounts, bill payment assistance programs, ratemaking policies

for bad debt associated with low-income customers, funding for low-income energy efficiency programs, energy education, and disconnection and reconnection standards.

We recommend two specific measures for protecting low-income customers in West Virginia. First, the 20 percent rate discount that is currently offered to low-income customers should be maintained. The rate discount has served low-income customers well in the past, and restructuring is likely to increase the need for this important measure.

Second, the Commission should establish a new system benefits charge to support additional low-income customer protection. A system benefits charge should be assessed on all distribution company customers, regardless of which supplier they use for generation services. The charge should be assessed on the basis of energy consumption (i.e., mil/kWh), as opposed to a flat charge per meter, because an energy-based charge results in a more equitable system for obtaining contributions from different sizes of customers. We are aware of at least nine states that have proposed or implemented low-income system benefits charges, and all of them are assessed on the basis of energy consumed (ACEEE 1999).

A majority of the low-income system benefits charge should be dedicated to implementing low-income energy efficiency and weatherization programs. From a public policy perspective, it makes more sense to mitigate or prevent low-income customer bill payment problems by reducing customer bills through energy efficiency, than to address such problems after they occur by helping customers pay their bills.

Another important measure is to require that generation companies do not discriminate against low-income customers by avoiding certain geographic areas or customer types (i.e., redlining), or by charging higher rates for the same services provided to other residential customers. In designing distribution rates, the Commission should prohibit "de-averaging" across different parts of the service territory. In other words, the distribution companies should continue to charge the same average distribution rates, for the same types of service, regardless of where the customer is located in the service territory.

Competitive generation suppliers may be hesitant to market and serve low-income customers because of a perception that such customers have a higher risk of creating bad debt. This concern could be addressed by requiring the supplier of last resort to absorb low-income customers' bad debt. (MA DTE 2/1998) This policy would depend upon the universal service and the supplier of last resort policies adopted by the Commission. For example, those customers that do not pay their electricity bills after sufficient notice could be shifted from their generation supplier to the supplier of last resort. The generation supplier could then be allowed to recover any bad debt associated with such customers from the supplier of last resort. If such an approach were adopted, the Commission should establish a mechanism to allow the supplier of last resort to recover bad debt expenses from all electricity distribution customers.

7. Consumer Education and Disclosure of Information

7.1 Consumer Education

Customers have purchased electricity from their local electric company for their entire lives, indeed for generations. In most cases, customers do not give much thought to how the power is being provided, or what sort of options there might be for obtaining power from other sources. In order for the potential benefits of competition to be achieved, this historic pattern will have to be reversed. Customers will have to be informed of the opportunities available to them, and actively investigate and choose among those opportunities.

A significant consumer education campaign will be necessary to achieve this fundamental shift among electricity customers. Most states that are in the process of introducing retail competition are establishing comprehensive education programs to promote public awareness and public participation in the new electricity market.

A recent report from the US Department of Energy provides an overview of the key components that should be included in any public education program regarding retail competition. These key elements are repeated below:

- "Information dissemination by means of interactive activities, as well as brochures or other written materials, and use of a variety of mass media outlets, with the intent to motivate the public to become interested in, and learn more about, electric competition.
- Explanations in clear languages (and multiple languages in some states) of the basic concepts of electric restructuring, which include (1) information on how prices, consumer protections and low-income programs may be affected; (2) explanations of customer risks and responsibilities; (3) information about how to access and use of a household energy profile to shop for electricity; (4) how to compare offers from electric suppliers; (5) information about aggregation; and (6) information about dispute resolution mechanisms, including the role of state agencies in resolving disputes with retail electric suppliers.
- Well-publicized public forums conducted in several geographical areas to obtain input and provide opportunities for information exchange.
- Active involvement of community organizations in developing messages and devising and implementing strategies, particularly for low-income, elderly, foreign speaking, rural and other customers who may miss more traditional media-based efforts.
- Use of focus groups and surveys to gather public input on both broad restructuring issues and concerns, as well as on public education needs and reaction to initial outreach initiatives.
- A toll-free hotline to provide guidance to consumers seeking advice about personal energy needs, the selection of a retail supplier, aggregation, or dispute resolution.

- Use of pre-established outcome measures of customer awareness, understanding and ability to act, which periodically evaluate education and outreach efforts." (Alexander 1998)

7.2 Disclosure of Information

Basis for uniform disclosure standards

A fully competitive market depends upon the free flow of information to potential buyers. Without clear, accessible, consistent, comprehensive and accurate information, customers will be unable or reluctant to shop for competitive power supplies, and many of the potential benefits of electricity restructuring will not be achieved. The National Association of Regulatory Utility Commissioners (NARUC) acknowledged the importance of information disclosure in July 1996, in a resolution urging regulators that introduce retail competition to include disclosure and labeling standards that allow customers to easily compare the price, resource mix, and environmental characteristics of their power suppliers.

It is important to recognize that information disclosure provisions are a necessary consumer protection measure, more so even than a measure to promote a competitive market or to encourage the development of a market for green power. Without uniform disclosure provisions, customers are at risk of receiving insufficient, confusing, inaccurate, or misleading information, which can lead to higher prices than would be obtained in a truly competitive market. In addition, experience with pilot programs and with retail competition in California indicates that green power marketers can manipulate information and advertising materials in such a way that customers pay higher prices for little, or no, environmental benefit. (See, for example, Rader 1998 and Holt 1997.)

It is also important to recognize that uniform environmental disclosure policies are not the same as environmental regulations, and are not meant to achieve the same goals as environmental regulations. Even if utilities are in full compliance with all local, state and federal environmental regulations, there is still a need for uniform environmental disclosure standards because some customers will want to distinguish between suppliers that merely meet the regulations and those that significantly exceed them.

Furthermore, uniform environmental disclosure policies should not be seen as a substitute for other regulatory policies to improve the quality of the environment, such as policies to support energy efficiency or renewable resources. Environmental disclosure policies will prevent suppliers from misrepresenting their products, and will enable customers to make more informed choices, but they do not guarantee that customers will voluntarily purchase a significant amount of cleaner resources. Additional policies will be necessary to achieve this goal.

Recommendations for uniform disclosure standards

It is important that information disclosure requirements be applied to all entities that are licensed to supply retail electricity within the state. Even suppliers of standard offer services and suppliers of last resort should meet disclosure requirements, because

customers using these services should be made aware of how they compare to competitive generation services. In addition, information should be provided to customer types of all sizes, regardless of how many resources some customers might have to obtain the information on their own.

It is also important that information disclosure requirements be standardized as much as possible, to avoid confusion to customers and minimize the costs to suppliers. At a minimum, disclosure requirements should be standardized for all customers and across all retail suppliers within the state. If possible, they should be standardized across neighboring states within the region.[3] Ideally, information disclosure requirements should be consistent throughout the entire US, as has been proposed in the Department of Energy's current restructuring legislation. Such federal standards could be considered a minimum requirement; states that prefer more comprehensive standards should have the option of adopting those as well.

Information on generation services should be made readily available to customers at key points in their decision-making processes. Most regulators have identified four key points at which information must be made available to customers: in advertising and marketing materials; before a retail supplier begins providing service to a customer; periodic (e.g., quarterly) updates; and upon request by any customer. With regard to advertising and marketing materials, suppliers are sometimes just required to inform potential customers of how to obtain the detailed information.[4] Suppliers of last resort are not necessarily required to provide the information before providing service to a customer, because they are obliged to provide service to customers on very short notice. Suppliers should be required to post their information and labels on their web sites, so that customers can obtain the information quickly and easily.

Disclosure standards tend to require retail suppliers to provide four types of information: price; contract terms; mix of fuel types; and emissions.[5] Information on price should describe whether the price varies by time of use, by volume, or for any other reason. Price information should also be presented in terms of average price per kWh for various common usage levels (e.g., 250, 500, 1000 and 2000 kWh per month for residential customers), in order to be able to make comparisons across different pricing schemes.

Information on contract terms should describe all conditions that may affect timing, type or cost of service, as well as additional charges that might be incurred. For example, the Massachusetts disclosure rules require that the following be provided:

- actual pricing structure;

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[3] Beginning in March 1997, the regulatory commissions in the six New England states have worked on a model rule for information disclosure that would be consistent throughout that region. This approach, organized through the New England Conference of Public Utility Commissioners, could serve as a model for other regions as well.

[4] If the advertising or marketing is for a particular electricity product (e.g., some form of green power), then it should contain all of the disclosure information pertaining to that particular product.

[5] The Massachusetts standards also require information regarding the labor characteristics of the producers of generation. (MA DTE 2/1998)

- length and type of contract;
- due date of bills and consequences of late payments;
- conditions under which a credit agency is contacted;
- deposit requirements and interests on deposits;
- limits on warranties and damages;
- any and all charges, fees, and penalties;
- information on consumer rights pertaining to estimated bills, third-party billing, deferred payments, and rescission of supplier switch within three days of receipt of confirmation;
- a toll-free number for service complaints;
- low-income rate eligibility;
- provisions for generation services from the supplier of last resort; and
- method whereby the retail customer will be notified of changes to the terms of service. (MA DTE 2/1998)

In reporting the fuel mix, retail suppliers should break out the key types of fuel sources, such as coal, oil, natural gas, and nuclear. Renewable resources should be broken out in some detail, because different types of renewable resources can have different environmental implications. For example, separate categories should be used for large hydro, small hydro, solar, wind, biomass, and municipal waste incinerators.

Retail suppliers should also distinguish between power obtained from "known resources" (which includes owned resources or those purchased through unit contracts), and "system power" (which includes a mix of unidentified resources purchased from another company or system). Known resources can be assigned attributes associated with those specific resources, while system power should be assigned the attributes associated with the average mix of resources within the system. Otherwise, there is a risk of double-counting the cleaner resources from the system power. Similarly, imported power should be reported separately, and should be assigned the attributes associated with the importing system, if such attributes are available through consistent tracking and reporting requirements. If such attributes are not available, then a default value should be established for the imported power.

Most disclosure standards require that retail suppliers provide emission characteristics for carbon dioxide (CO_2), nitrogen oxides (NO_X), and sulfur dioxide (SO_2). Disclosure standards should also require that retail suppliers present information on heavy metals, when such information can be obtained accurately and reliably. (MA DTE 2/1998) Retail suppliers should also be required to present information on the amount of high-level and low-level nuclear waste generated per kWh. (ICC 11/1998) The retail supplier's emissions should be presented relative to the average emissions of the region, so that customers can place their supplier's emissions in context.

Regulators should clearly identify the format to be used in reporting information, both in terms of the substance of what is to be reported and the way that it is to be presented. This sort of detailed standardization is necessary to improve customer understanding,

avoid customer confusion, and prevent suppliers from manipulating the presentation in their favor. The sample disclosure label proposed by the Massachusetts DTE is included in Attachment 3, to indicate how the format can be standardized. Retail suppliers should also include standardized text explaining the meaning of information provided on the label. This text should be provided on the back of the label, for easy reference. The sample back-of-the-label notice proposed by the Massachusetts DTE is included in Attachment 4.

One of the challenges in establishing disclosure requirements is in deciding how much to rely upon historic performance versus projected performance in the future. Historic performance (e.g., for the most recent 12 months) should be used wherever possible, because this presents the most accurate depiction of the supplier's resources. If historic information is unavailable, (e.g., in the case of a new company or a new product offering), then short-term forecasts can be used as long as historic information is presented as soon as it becomes available, and the historic information is compared over time with the forecasts used.

Some retail suppliers have expressed an interest in offering electricity products, such as green power, that would be distinct from the rest of their generation portfolios. In such cases, it is important that retail suppliers provide customers with complete information and labels associated with the product being purchased. Customers purchasing such electricity products should also be provided with a second label containing complete information for the company as a whole. In this way, customers will be able to determine the extent to which they are simply being allocated a clean portion of a broader portfolio. In addition, retail suppliers that sell distinct electricity products to some customers must adjust the information provided to other customers accordingly, by subtracting out the resources that are sold as separate products. In this way, customers that do not buy the distinct product will be informed of the types of resources that are allocated to them.

Information disclosure standards should include sufficient provisions for auditing, verification and enforcement. Retail suppliers should be required to provide the Commission with an annual report that describes the electricity purchases made during the past year, and that presents all the information required in the standardized labels. This annual report should be subject to an independent audit for verification. Customers and competing retail suppliers should be provided with a forum for challenging a supplier's informational filing. Regulators should be able to take remedial actions against retail suppliers that are found to be in violation of the disclosure standards, including, fines, penalties, and the ability to revoke the retailer's license in the event of repeated violations. Any violations of a retail supplier, either within the state or in another jurisdiction, should be posted publicly on the web sites of the retail supplier and the Commission.

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Joseph Schuler 1999. *High Voltage Affiliate Rules Shock Utility Markets*, Public Utilities Fortnightly, January 15.

Attachment 1.

Report of the Subcommittee on Code of Conduct and Affiliate Transactions: Competitors' Proposed Code of Conduct.

Attachment 2.

Sample Application Form for Parties Wishing to Offer, Render, Furnish, or Supply Electricity or Electric Generation Services to the Public in the State of West Virginia.

Attachment 3.

Sample Uniform Disclosure Label Required by the Massachusetts Department of Telecommunications and Energy.

Attachment 4.

Sample Back-of-the-Label Notice Required by the Massachusetts Department of Telecommunications and Energy.