

WHITE PAPER

on

ELECTRIC UTILITY INDUSTRY RESTRUCTURING ISSUES

A Summary of the Work of Six Wyoming Stakeholder Subcommittees

compiled by the Wyoming Public Service Commission

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MORE INFORMATION CONCERNING THIS WHITE PAPER . . .

The body of written material produced by the six Stakeholder Subcommittees which considered various aspects of the question of electric industry restructuring in Wyoming is over five hundred pages in length. Consequently, this White Paper is an executive summary of the work of those six subcommittees. This White Paper and the complete unedited versions of each subcommittee s

contribution are available at the Wyoming Public Service Commission's web site on the Internet at <http://www.state.wy.us/~psc/>. This White Paper and the subcommittee material are also available on computer disks and in other formats. Please contact the Commission by calling at (307) 777-7427 or writing to the Secretary, Public Service Commission, 700 West 21st St., Cheyenne, Wyoming 82002, for further information.

Commission Preface

A COMMENT ON THE VALUE OF THIS WHITE PAPER

Electric industry restructuring in the United States is one of the most significant and vigorously debated regulatory issues of our time. Simply stated, the idea of restructuring suggests replacing, at both the wholesale and retail levels, the traditional regulated monopoly paradigm for providing electric services to generally captive customers with a more competitive, less regulated, utility industry in which customers have choices of suppliers and types of service. As is the case with any fundamental change to a long-established practice, restructuring of the electric industry with resulting market-based rates and competitive choices has risks and opportunities for all stakeholders. There is the potential to reward consumers as a whole with lower utility costs; but, at the same time, such a change also carries with it the potential to disrupt long established electric utility markets and eliminate existing rate subsidies. Any steps toward electric industry restructuring must therefore be considered and taken carefully and deliberately.

Because of the size and complexity of the task, we did not develop the White Paper with the hope that this document would announce the final answers to the myriad of questions raised by the large collection of ideas exchanged in the Wyoming collaborative process. Rather, we consider this White Paper to be a report on the range of Wyoming restructuring perspectives and a possible outline which could be considered in this time of dramatic changes in the industry.

This document describes how the participants looked at some of the important issues and articulates some of the ideas discussed and developed in the process. It is intended to assist key policy makers in Wyoming, including the Governor, Legislators and others concerned with the industry, as they examine and address the significant and complicated issues related to electric industry restructuring. Although this White Paper, it contains material that will help those not familiar with the concept of restructuring to become more conversant on the subject and to understand better the challenges it poses. This White Paper is not intended to resolve all disputes, but we hope it will be informative to those who undertake to do so. We believe that it will help those interested in the subject, regardless of their viewpoints, to speak in a common language and with a common frame of reference.

FURTHER WORK IS NEEDED

The Commission has drawn several conclusions from our work on this White Paper and our participation in the collaborative process that developed it. One of

the conclusions is that further steps toward statewide electric industry restructuring at the retail level in Wyoming should not go forward without a comprehensive study of the economic and other effects it would likely have on Wyoming consumers -- both large and small -- and on the economy of the state as a whole. This is not solely the Commission's idea. You will see below in the text of the White Paper how several subcommittees reached the same conclusion.

Because the electric industry is such a substantial part of the life of the people and the economy of the state, the inquiry should not be strictly limited to utility issues but should be comprehensive. The effect on different kinds of utilities and various groups of consumers must be considered, but the effect on the economy of the state -- on the business and agricultural communities, on taxes, mineral and energy exports, and on local governments -- must also be considered. Such a study should also be comprehensive enough to address the potential concerns of both smaller and larger customers and the other stakeholders participating in the collaborative process. The study should also rely upon existing information and prior work products to the greatest extent possible. Finally, the study should be objective and credible and completed in a cost-effective and expeditious manner.

We believe that this study will sustain the cooperative spirit shown by the various groups which worked on the White Paper. Therefore, we propose that the study be undertaken not by the Commission alone but through the efforts of a steering committee representing the Commission, investor-owned utilities, rural electric cooperatives, local governments, large industrial consumers and smaller consumers. In the spirit of cooperation, of finding a Wyoming solution, this is the study and to select the necessary experts to conduct it. Each of the groups represented on the steering committee, with the exception of the small customer representative, could also contribute to defraying the cost of the study, just as each would share in framing the study itself. This would make it clear that the study is not the product of a particular agenda and that it represents a truly cooperative effort. Just as this White Paper is not the product of a particular point of view, a truly useful study of the impact of restructuring on Wyoming should be free of factional bias.

We note that Subcommittee reports also discuss the concept of pilot programs as beneficial precursors to further steps toward industry restructuring. Aside from the recommended economic study, utilities and customers that wanted to do so could also contribute useful information through pilot or demonstration programs. We will not make a general prejudgment of requests to implement pilot programs, but we note that they are allowed under W. S. 37-2-121 and related sections of the Wyoming statutes as they have been amended by 1995 House Bill 109. Such programs could help by gathering practical experience on the workability of different options, their effect on customers and their acceptability by customers.

In all of this, the White Paper will help by providing common ground for all of those interested in the subject who must consider the substantial array of issues associated with restructuring. We welcome any questions which you, the reader, may have. We look forward to working with you.

Introduction

a. SOME DEVELOPMENTS WHICH LED TO THIS WHITE PAPER

On November 8, 1995, PacifiCorp filed an application with the Wyoming Public Service Commission (the Commission) seeking a general rate increase after a decade of stable prices. According to 1995 annual reports filed with the Commission, PacifiCorp serves 70% of the electric load and approximately half of the geographic area of Wyoming, including some of the state's largest industrial customers.

The Wyoming Industrial Energy Consumers Group (the Group) intervened in PacifiCorp's rate case and advocated positions favoring customer choice and unbundled (i.e., competitive) supply options. On March 18, 1996, the Group filed a motion with the Commission requesting that [i] an investigation be opened to examine electric restructuring issues in Wyoming, and [ii] a formal rule making proceeding be started on electric restructuring issues. The Commission docketed the motion as General Order No. 77, but the Group's motion was not granted. Instead, the Commission invited the Group to participate in a collaborative examination of the subject to be initiated by the Commission.

In the same time frame, the Federal Energy Regulatory Commission (FERC) issued its Order 888 entitled *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*. Order 888 established an open access, common carrier model for the wholesale interstate electric transmission industry with the hope of lowering prices and fostering a truly competitive interstate electric commodity market.

b. THE COLLABORATIVE PROCESS and PRODUCING THIS WHITE PAPER

On May 14, 1996, the Commission hosted a Stakeholders Dialogue and Collaborative on Electric Restructuring Issues in Casper, Wyoming. Over 200 interested participants attended and listened to formal presentations by the rural electric municipal leaders and other industry experts. At the conclusion of the program, participants were asked to join one or more of six subcommittees to work on restructuring issues and make contributions to a white paper dealing with the key aspects of electric industry restructuring.

The retail utility stakeholders which joined in the collaborative process are a diverse group. They consist of twenty regulated Wyoming electric utilities, four of which are investor-owned and sixteen of which are rural electric cooperatives, as well as a substantial group of non-regulated municipal electric utility systems. (Under present Wyoming law, investor-owned utilities and rural electric cooperatives

are regulated by the Commission and municipalities are not. Municipalities are granted "home rule status" under the Wyoming Constitution.) In addition to the diverse group of utility stakeholders, there are extreme contrasts among Wyoming customers who differ widely in their load size, financial capabilities, service needs and interest in electric industry restructuring. It is easy to understand, in light of the diverse stakeholders perspectives, how this issue has the potential to polarize the stakeholders and generate friction among the participants.

The collaborative process has been beneficial as a forum for stakeholders to work with one another to understand and appreciate each of the alternative viewpoints. It has improved, and in some cases, established, lines of communication and cooperation among the various interest groups, even though the interests and positions of the parties remain varied. Throughout the Summer of 1996, the various subcommittees held individual meetings and teleconferences to continue the collaborative process and develop their contributions to the White Paper.

On August 1, 1996, the chairmen of each of the six subcommittees formally asked the Commission to hold a follow-up collaborative to give the subcommittees an opportunity to come together againe other subcommittees and their members. The Commission concurred and held a second collaborative in Casper on September 5, 1996. On September 1, 1996, the subcommittees forwarded their White Paper contributions to the Commission in written and electronic form.

On September 26, 1996, a draft of the White Paper was made available to each of the subcommittee chairmen, each of the major stakeholders in the collaborative process and others who requested copies. The Commission asked that comments and edits be delivered to it by October 11, 1996. Numerous utilities, individuals, associations, and municipalities provided edits and comments which helped generally to clarify concepts contained in the draft White Paper and to strike a balanced position that accurately portrays the many aspects of the restructuring issue. All of the comments and suggestions were greatly appreciated, and the vast majority of them were incorporated into the final product.

c. WHAT DOES ELECTRIC INDUSTRY RESTRUCTURING MEAN?

In a general sense, the traditional electric utility company has been a vertically integrated enterprise engaged in the business of generating electricity, moving power over transmission lines and distributing power to customers in various communities or isolated rural locations. There are, of course, exceptions to this basic organization such as the investor-owned, rural cooperative and municipal utilities in Wyoming who own little or no transmission or generation facilities and rely upon others to supply their power needs. Nevertheless, the regulated electric utilities in Wyoming are monopolies; and, as such, their businesses are generally protected within exclusive certificated areas established by the Commission. This

industry has been characterized by reliable service, and, for many customers in some portions of Wyoming, by relatively affordable prices.

There is no single definition of electric industry restructuring; and it can occur at different organizational levels and take on several different forms. To begin the discussion on a common ground, however, one may think of restructuring as a series of industry changes through which [i] the generation function becomes rate deregulated at both the state and federal levels with generation companies being free to sell power at competitive market-based rates, and customers free to buy from any generator, [ii] the transmission function would be rate regulated as interstate commerce by the FERC with interstate transmission facilities being available to all parties on a non-discriminatory basis subject only to capacity constraints, and [iii] the distribution function would be rate regulated at the state level and remain a monopoly function within existing certificated service territories with local utilities having comparable, non-discriminatory access to all suppliers subject only to capacity constraints. In addition, customers in any given distribution utility's certificated service territory could have the option to purchase their power supplies from competing commodity suppliers who would, we suppose, compete not only on the basis of price but also by providing more specialized service choices than are currently available.

Retail electric utility service today is offered under tariffs which typically include a simplified rate that groups together (bundles) the three functions (generation, transmission and distribution, together with what are called ancillary services). If the industry were to be restructured along the lines described above, the rates would likely be unbundled -- disaggregated into their numerous service and price components for customer consideration. Customers would then have the opportunity to shop for the most attractive combination of power options and pay for only those specific services needed. Proponents argue that this concept would improve economic efficiency, take advantage of technological improvements in electric generation and lower costs to end-use customers. Critics argue that these opportunities will come to the largest customers with the highest load factors at the expense of many smaller customers for whom there may be few options and resulting higher rates.

Restructured markets are generally thought of as being more competitive in their behavior; and it is an economic axiom that more competitive markets are more efficient. Thus, inherent in the restructuring concept is the idea that rate subsidies among customers and classes of customers must be eliminated. Some argue that if previously subsidized customer classes were required to pay the full cost of service, the electric rates of these classes could increase. Some restructuring critics also claim that higher rates may result for customers taking service at remote locations or through costly installations. Restructuring advocates argue that rates to

all customers, especially those served by higher-cost utilities, will be reduced.

Cost of service data available today generally shows that residential and small commercial customers historically have most often been the ones who pay less than their actual cost of service. These are the most often subsidized customers, and they are the most numerous. Often they are also the customers least able to react positively to increases in electric utility costs. This worries utilities and their customers. At the same time, utilities are also worried that the potential loss of large industrial customers would cause great financial hardship because these customers today make significant contributions to the utility's annual income. Some point out, however, that under traditional regulation the large industrial customers currently have the option to leave the local distribution system (by self-generating, etc.) even without restructuring. In fact proponents of restructuring note that without restructuring, only large customers will be able to receive the benefits of competition.

This combination of market conditions and potential effects again points to the advisability of a comprehensive study of the economic effects which might be expected from restructuring in Wyoming.

d. WYOMING'S DIVERSE INTERESTS

Based upon United States Department of Energy data [US DOE EIA-0540(94)], Wyoming's electric load and the distribution among utilities which serve the state are as follows:

1994 Wyoming Electric Load - Million Kwh

	Residential	Commercial	Industrial	Other	Total
Investor-owned	1,311	1,545	6,302	24	9,182
Rural cooperative	393	669	926	86	2,074
Publicly-owned	161	213	32	8	414
Federal				26	26
Total	1,865	2,427	7,260	144	11,696

1994 Wyoming Electric Load - Percentage Distribution

	Residential	Commercial	Industrial	Other	Total
Investor-owned	11.2%	13.3%	53.9%	0.2%	78.6%
Rural cooperative	3.4%	5.7%	7.9%	0.7%	17.7%
Publicly-owned	1.4%	1.8%	0.3%	0.0%	3.5%
Federal				0.2%	0.2%
Total	16.0%	20.8%	62.1%	1.1%	100%

Wyoming electric consumers have diverse and wide-ranging viewpoints on electric restructuring issues. In addition to its small customers, Wyoming is also home to several very large industrial customers engaged in natural gas processing, open pit coal mining, oil pumping, manufacturing and other mineral extraction operations. These large industrial customers make up over 60% of the state's electric load and they generally favor a restructured electric industry with competitive supply options and market-based rates. They believe that all customers will benefit from a choice of suppliers and services, technological innovation and an improved business climate.

Wyoming is also a substantially rural state characterized by low customer density. Approximately 18% of the electric load in Wyoming is served by rural electric distribution cooperatives. Many smaller rural customers and their distribution cooperatives are cautious and apprehensive about electric industry restructuring because they believe that the potential benefits which might result from a restructured electric industry may not be evenly distributed and that those with the least market power will benefit the least. Some Wyoming stakeholders believe that the larger industrial customers may be the *only* recipients of benefits from a restructured electric industry, with the smaller customers being left to contend with increased costs and the possibility of perhaps being the only ones left paying for utility investments which were made at an earlier time to serve a broad array of customer loads. Other Wyoming stakeholders believe that it is inevitable that large customers will find ways to benefit from competition but argue that, without restructuring, small customers will not receive the lower cost power which competition and technological innovation may bring.

PacifiCorp, the largest investor-owned electric utility in Wyoming, charges electric rates in Wyoming which are among the lowest advocates retail choice for all electric customers by the year 2001, and it is advocating a transition to restructuring which involves both state and federal activities. In contrast, the Wyoming rural electric cooperatives, through the Wyoming Rural Electric Association, have editorialized, in the July 1996 *Wyoming Rural Electric News*, that restructuring is not inevitable. The Wyoming cooperatives have adopted a list of restructuring principles which include general issues of customer fairness and issues specific to rural electric cooperatives such as advocating protection for their all-requirements wholesale power supply contracts. In addition, the rural electric cooperatives believe the alleged benefits from deregulation of the electric industry have neither been studied adequately nor proven to be beneficial for low density rural states like Wyoming. They therefore conclude that it is not in their best interest at this time.

e. THE SUBCOMMITTEES

Because the idea of electric industry restructuring is complex, the Commission established six subcommittees to comment on the broad issues of electric restructuring in Wyoming. The choice of six working groups was made for the sake of practicality and efficiency, even though the subject could easily have justified the work of many more subcommittees. The subcommittees were constituted on the basis of six of the most wide ranging topics, including Legal Issues; Social Concerns; Implementation; Transition Cost; Reliability, Integrity and Safety; and Rate Unbundling.

Each subcommittee was chaired by a volunteer who came from among the industry stakeholders and who was not associated with the Commission. In addition, each subcommittee had a coordinator from the Commission staff who provided administrative support and other assistance to each subcommittee and acted as a liaison between the subcommittee and the Commission. The individual members serving on each of the six subcommittees represented a wide variety of utilities, rural electric distribution utilities, generation and transmission cooperatives, large industrial customers, educators, non-regulated market competitors, utility industry consultants and municipal leaders. Progress reports were to be made each month throughout the Summer of 1996; and final contributions to the White Paper were due from each subcommittee on September 1, 1996.

f. WHAT ARE SOME OF THE KEY RESTRUCTURING CONCEPTS?

Wyoming is not the first state in the nation to address electric restructuring issues. In fact, many other states have invested years of work on the subject; and some are proceeding at a faster pace with restructuring. Most of the states which are proceeding more quickly also have higher rates for all classes of electric service than those offered by utilities in Wyoming. The literature and periodicals portray a well documented history of electric restructuring activity across the nation. There

are proceedings, inquiries, investigations, state commission orders, pending state statutes and other activities in at least 42 other states. In addition, federal legislation has been proposed on the concept of electric industry restructuring.

Some of the major concepts being discussed across the nation, as well as in Wyoming, can be summarized in the following:

1. **RATE UNBUNDLING** Whether accomplished through a functional reorganization of vertically integrated utilities or simply through the restatement of traditional tariffs, unbundled services to customers would typically mean the disaggregation of electric utility service into basic functions:

a. *Generation* of electricity as a commodity -- which would not be rate-regulated by either state or federal agencies. It would be subject to market forces interacting in a competitive supply and demand relationship.

b. *Transmission* of power -- which would be done on an open access, non-discriminatory basis with comparability in both price and service regardless who owns the transmission system. Transmission service would be regulated by the FERC.

c. *Distribution* service by utilities -- which would be regulated by state public service commissions. Service would continue to be provided in certificated territories, with non-discriminatory retail wheeling tariffs available to move competitive commodity supplies to retail customers.

d. *Ancillary* services -- which includes a wide variety of subproducts offered by generators of electricity, distribution utilities, power marketers or others to satisfy the special needs of customers. Ancillary services might include, for example, reactive power and voltage control, energy balancing service, special system control and dispatch services, BTU trading or banking (i.e., natural gas or other fuel swaps for electric power) and an unlimited range of other services which might be developed to fill the special needs of some customers.

2. **RETAIL WHEELING** Wheeling is another term for transmission of power. Retail wheeling is commonly understood to mean that competitive electricity supplies would be delivered to retail customers by the traditional utilities which would allow their systems utilities would develop tariffs to establish the proper fees for use of their distribution systems in retail wheeling.

3. **COST VERSUS MARKET** The rates for certain services, especially electric commodity or generation services, would be based upon competitive market prices rather than on the more traditional basis of their costs. Supply and

demand relationships and freedom of choice may replace the traditional analysis by utilities and regulators who previously determined the cost of providing certain services which may become competitive in the future.

4. **CERTIFICATED TERRITORY** Certificated service territories are the exclusive geographic service areas assigned by regulators to utilities, a concept developed originally to control problems associated with the expensive duplication of facilities. Thus, one scenario in a restructured environment would be for distribution facilities to remain as an exclusive, and therefore, regulated, function within the traditional boundary of a utility's certificated service territory. It is argued that this tactic would be least disruptive to distribution utilities and would further protect the environment and customers from duplicate facilities and possible stranded costs. Other options such as joint certificates or elimination of certificated territory have also been discussed.

5. **MARKETERS** In a competitive market, non-regulated entities including brokers, marketers and third parties will be interested in arranging power and ancillary service sales to retail customers and may engage in niche marketing. In general, such entities would not be regulated as utilities unless they met statutory tests of utility status. In Wyoming, electric public utilities include every person that owns, operates, leases, controls or has power to operate, lease or control . . . Any plant, property or facility for the generation, transmission, distribution, sale or furnishing to or for the public of elect . . . Absent federal or state law which would open all utility companies to equal levels of competitive interaction, one or more utilities could volunteer to open their own operations to competition unilaterally without an agreement from other utilities to reciprocate by opening their own systems. This is sometimes described as creating an unlevel playing field among utilities and customers. It has been suggested that reciprocity could be implemented through agreements among utilities or through statutes requiring it.

7. **STRANDED COST or STRANDED INVESTMENT** Existing utilities have invested substantial amounts of money in building systems to serve traditional customer groups (e.g., residential, commercial and industrial) based upon expected customer load growth and usage profiles. If customers were able to leave their traditional utility and obtain services, especially generation or commodity supply, elsewhere, the above-market portion of the utility's investment could become redundant (stranded) if its power or other services could not thereafter be sold to others at equivalent prices. Responsibility to pay for the cost of truly stranded investment may fall on remaining customers; and, therefore, safeguards would have to be fashioned to protect customers, utilities and investors from the loss of revenue which could result from potential stranding effects of an immediate shift to open competition.

8. **RELIABILITY and SAFETY** Electric utility customers have come to expect a relatively high level of reliability characterized by power always being available in sufficient quantities at any time with only infrequent interruptions or outages. Customers have also come to expect the highest degree of uncompromising utility safety standards. It is unclear how these may be affected in a competitive market in which unregulated third parties may have a major role in supplying power to retail customers. It is clear that the introduction e addressed if traditional levels of reliability and safety are to be maintained. In a competitive market, it is to be expected that some customers, especially those with outage-tolerant industrial processes or adaptable power requirements, would be willing to trade decreased reliability for a lower price.

9. **LEGAL ISSUES** State laws differ significantly and many large multi-jurisdictional utilities therefore may find themselves in conflicting situations. This situation could become more pronounced as states independently deal with the issues of electric industry restructuring. There is some disagreement as to what authority current Wyoming statutes give to regulators and utilities regarding electric industry restructuring. Federal legislation, welcome or not, might introduce consistency to the process.

10. **SOCIAL ISSUES** In the transition to a completely competitive market environment, existing social programs and rate subsidies would need to be addressed. There is some disagreement whether such social programs and subsidies should be retained in a restructured utility environment, or if they are retained, how best to satisfy the underlying social concerns. The effect of changing or eliminating existing utility rate subsidies which have traditionally gone to certain customers or to entire classes of customers deserves careful attention. In a completely competitive environment, existing rate subsidies would, without further action, probably disappear as market participants sought to maximize profits.

11. **TIMING** Some states have already begun pilot programs or passed new state laws which permit competition in the electric industry. If competitive electric services are to be considered in Wyoming, policy makers will need to determine how fast and how comprehensive the transition will be and in what forum the structural changes should be addressed.

g. A DISCLAIMER

Due to the voluminous and comproduce a White Paper which was informative and, at the same time, practical and reasonably sized. It is not our intention thereby to distort or misrepresent any viewpoint, and we apologize if we have unintentionally done so. As noted above, the complete unedited version of each subcommittee s contribution (as well as the text of this White Paper itself) is available at the Wyoming Public Service Commission s web site on the Internet at

<http://www.state.wy.us/~psc/> This White Paper and the subcommittee material are also available on computer disks and in other formats. Please contact the Commission by calling at (307) 777-7427 or writing to the Secretary, Public Service Commission, 700 West 21st St., Cheyenne Wyoming 82002, for further information.

REPORTS OF THE SUBCOMMITTEES

The LEGAL ISSUES SUBCOMMITTEE

The Legal Issues Subcommittee (Subcommittee) recognized a number of points as being most pertinent to the Commission s consideration of the form which competition in the electric utility industry in Wyoming may take if the State of Wyoming decides to institute it. Various members of the Subcommittee submitted legal briefs and comments on the subject matter. The following briefs were prepared and presented to the Subcommittee.

Brief of Morrill, Thomas & Nooney, LLP, dated May 16, 1996, prepared and submitted to the Commission prior to the first meeting of the Legal Issues Subcommittee (the Morrill Brief). The firm represents Black Hills Corporation.

Brief of Parsons, Behle & Latimer, dated June 17, 1996, submitted following the first meeting of the Subcommittee and Brief dated July 19, 1996, submitted in response to the Morrill Brief (collectively, the Parsons Brief). Parsons, Behle & Latimer represent Thunder Basin Coal Company.

Brief of David D. Uchner, dated June 17, 1996, submitted after the first meeting of the Subcommittee (the Uchner Brief), on behalf of the Wyoming Rural Electric Association.

Brief of Robert E. Temmer, General Counsel of Tri-State Generation and Transmission Association, Inc. dated June 14, 1996, submitted after the first meeting of the Subcommittee (the Temmer Brief).

Brief of Holland & Hart by Bob Pomeroy, dated June 20, 1996, submitted after the first meeting of the Subcommittee (the Holland Brief). Holland & Hart represents Wyoming Industrial Energy Consumers, whose members are Amoco E & P, Black Butte Coal, Canyon Creek Compression, Chevron, Church & Dwight, Exxon Corporation, FMC Corporation, Marathon Oil Company, Mobil Oil Company, OCI Chemical, SF Phosphates, J.R. Simplot Company, Sinclair Oil, and Solvay Minerals, Inc.

Brief of John H. Skavdahl, dated June 13, 1996, submitted after the first meeting of the Subcommittee (the Skavdahl Brief). Mr. Skavdahl represents Niobrara Electric Association, Inc.

Brief of Donald P. White, datee first meeting of the Subcommittee (White Brief) for

his clients, Hot Springs Rural Electric Association and Riverton Valley Electric Association.

Brief of Stoel Rives, LLP, dated July 10, 1996 (the Stoel Rives Brief). The firm represents PacifiCorp.

Memorandum of P. G. Pitet, Rocky Mountain Region Counsel for Marathon Oil Co., dated July 11, 1996 (the Pitet Brief).

While the briefs make some comments on policy and it should be recognized that legal briefs are influenced by advocacy by each attorney of the client's desired policy outcomes, the Subcommittee does not undertake to make comments or conclusions on whether the State of Wyoming should institute electric industry restructuring. The reference to specific briefs below is provided for informational purposes only and is not intended to reflect Subcommittee endorsement of any of the particular positions advanced in the briefs.

Two fundamental issues were addressed by the Subcommittee which may be expressed in the following questions: [1] Does the Commission under present law have the authority to restructure the electric utility industry in Wyoming? [2] If changes in the law are determined to be prudent or necessary, what should they be and why?

1. **Does the Commission under present law have the authority to restructure the electric utility industry in Wyoming?**
 - (a) **Authority of Commission.** The Subcommittee has reached the consensus that the Commission does not have the present authority to *completely* restructure the electric utility industry to include *all aspects* of restructuring. Some aspects of restructuring arguably may not need additional legislation. Depending upon the restructuring path chosen, however, it may be prudent to seek specific legislative authority. The Subcommittee is not unanimous in its opinion as to whether existing Wyoming statutes and the Wyoming Constitution allow restructuring of some sort. The Subcommittee notes that the Wyoming Supreme Court cases adopt a strict interpretation of the powers of the Commission.
 - (b) **Powers which may be needed.** If the State of Wyoming decides to restructure the electric utility industry, the following list illustrates some or all of the powers which the Commission may need to bring about such restructuring. Which powers the Commission needs would depend on the restructuring path chosen.
 - (1) To grant further, parallel territory certificates, or to amend or eliminate existing territory-specific certificates of public convenience and necessity and to legally grant customers therein the choice of energy suppliers and all electric suppliers statewide certificates to serve.

- (2) To require through tariff conditions (or amended certificates) the condition that each public utility and municipal system must allow others the use of its distribution system, specifically including the right of competitors to have access to the existing utility's lines and wires to provide service to customers within the existing utility's service territory.
 - (3) To identify and/or set transmission and distribution rates, including all related retail services.
 - (4) To define, calculate and determine stranded costs and determine who should bear which portion of those costs.
 - (5) To require that energy suppliers file unbundled tariffs for state jurisdictional services.
 - (6) To be able to allow rates for sale of energy to be based upon market conditions rather than on cost.
 - (7) To be able to compel, either directly or indirectly, through interstate and intrastate reciprocity provisions, or otherwise, nonjurisdictional utilities such as public power suppliers and municipal systems, to compete on the same basis as jurisdictional entities.
 - (8) To remove any entry barriers preventing generators, marketers, brokers, or other nontraditional market participants from participating on a level playing field in the retail electric service market.
 - (9) To ensure that all energy suppliers, including nontraditional market participants and existing suppliers, are subject to the same rules, requirements and statutory restrictions (including customer protections) for those services which they offer to retail customers in the state of Wyoming.
- (c) **Some Subcommittee Members suggest that changes in the law are required.** The Morrill, Uchner, Temmer, Skavdahl, and White Briefs all take the position that state law changes would be required for the following reasons:
- (1) There is no authority to force a utility (the First Utility) to deliver electric energy of another utility over the First Utility's facilities.
 - (2) The overlapping rights of municipalities to grant franchises and the Commission to grant certificates to serve must be clarified. The

Wyoming Constitution grants each municipality the right to determine who constructs and maintains electric facilities therein. The Uchner Brief suggests the possibility that the Wyoming Constitution may need to be amended. The White Brief makes the point that subsequent to deregulation of the natural gas industry, the Wyoming Legislature saw fit to amend the statute granting municipalities authority to grant franchises to natural gas distribution utilities to require the franchisee to furnish a gas distribution system through which any supplier, including the franchisee, may sell or distribute natural gas.

- (3) Wyoming statutes need to be clarified to define what compensation a utility may or may not be entitled to arising from the taking of the utility's franchised rights. The franchised right to serve existing customers may be in the nature of a contract or property right and cannot be taken without just compensation.
 - (4) The law granting the right to municipalities to establish municipal electric systems would need to be amended in order to condition the right of the municipality to establish such a system so that each of its customers would have the right to choose its electric supplier, to accommodate retail wheeling to deliver that energy, and to accommodate the operations of market participants such as marketers and brokers.
 - (5) Wyoming statutes need to be clarified to ensure that all energy suppliers, including nontraditional ones, are subject to Commission jurisdiction.
 - (6) Intrastate and interstate reciprocity provisions need to be provided in order to ensure realistic competition.
 - (7) Wyoming statutes need to be clarified to ensure that the Commission has explicit authority to assess stranded costs.
- (d) **Some Subcommittee members suggest that law changes are not required.** For some forms of restructuring, the Parsons and Holland Briefs take the position that there are sufficient statutes and court precedents which grant adequate authority to the Commission to authorize the key components of competition and consumer choice and access to another utility's lines and wires for the following reasons:
- (1) The Commission has the authority implicit in Wyoming statutes to require utilities to file unbundled tariffs based on the current Wyoming statutes

which require a public utility to have a tariff on file and give the Commission authority to allocate costs when joint use of facilities occurs. Additionally, under current Wyoming statutes, the Commission has the ability to allow sales of electric energy at market rates.

- (2) The Commission has the authority to either amend or eliminate certificate requirements for those services that can be offered in a competitive environment because there are no constitutional limitations making certificates of public convenience and necessity exclusive in nature. In addition, the Commission has allowed duplication of certificates (dual certification) in the past under certain circumstances.
- (3) The Commission can ensure that the various suppliers of services have the ability to provide their services and products to the ultimate consumer through authority implicit in the current Wyoming statutes which requires filing of unbundled tariffs; gives the Commission the ability to coordinate the location of lines to avoid duplication; and gives the authority to allocate costs when joint use of facilities occurs.

2. If law changes are required or determined prudent, what legal changes are required and why?

- (a) **No federal law changes.** Some Subcommittee members suggest that no federal law changes are needed to allow free choice to some customers.
- (b) **Federal law changes required.** Other Subcommittee members held a different view; and they addressed the question of what federal law changes are necessary in order for competition to be sustainable:
 - (1) **The Rural Electrification Act and federal preemption.** The rural electric cooperatives position is set forth in the Uchner, Temmer and Skavdahl Briefs. The Uchner Brief takes the position that the federal government has preempted this area through the Rural Electrification Act in that consumer choice would undermine the security of the federal mortgages on rural electric cooperatives facilities.

The Subcommittee has divergent views on this topic. The Morrill, Uchner, Temmer and Skavdahl Briefs take the position that Congress should clarify the rights of the states to grant the right of choice to cooperatives customers before Wyoming attempts to invoke retail wheeling. Competition will not occur in Wyoming without taking into account the position of the cooperatives customers who should be given the same rights as those given to all customers.

Another view, propounded by the Parsons Brief, is that the State can solve this problem by adopting fair stranded cost provisions which would allow, with certain proof, the cooperatives, rural electric associations and investor-owned utilities compensation for loss of customers. The right to recover past costs is an equity issue, and recovery should only be allowed where the utilities, including the cooperatives, demonstrate that the costs were prudently incurred, the subject facilities were prudently managed, their costs were netted against gains expected from the opening of the market (and that they have not otherwise been recouped, either directly or indirectly), and the utilities have made appropriate attempts to mitigate their stranded costs. The Parsons Brief also argues that there is no constitutional right to stranded costs recovery. The Holland Brief likewise questions whether stranded costs are compensable. The Holland Brief further takes the position that there is no explicit preemption of state public service regulation in the REA Act and that, in general, the cooperatives must act within the constraints of state regulatory arrangements.

Several briefs imply that the concept of stranded costs will not fully answer this question. If the federal government has preempted the area, the federal government would need to determine if the issue of stranded costs (as defined by FERC) would be a condition to granting customer choice.

A third view is that there has been no preemption.

- (2) **Public Utilities Regulatory Policy Act (PURPA).** Are other federal law changes required before the electric industry could be made fully competitive?

The Morrill Brief takes the position that, as a condition to adopting full competition in Wyoming, the federal government should modify PURPA to the extent that a utility is not forced to purchase capacity and energy from new qualifying facilities. Full competition will be thwarted if laws such as PURPA are allowed to continue to force sales at avoided costs.

- (3) **Federal preemption.** One brief notes that the Commission has historically exercised jurisdiction over retail transmission through its jurisdiction over bundled retail sales. However, when transmission becomes a separate component in unbundled retail transactions, FERC has concluded that the state commissions will lose jurisdiction over the

rates, terms and conditions of the unbundled retail transmission component since transmission service over lines connected to an interstate grid are subject to exclusive FERC interstate jurisdiction.

- (4) **Interstate reciprocity.** One brief takes the position that federal legislation may be needed to address the situation of reciprocity among states, making the point that if utilities in other states are allowed to compete for customers in Wyoming while Wyoming utilities have no opportunity to compete for customers in other states, Wyoming utilities would be competitively disadvantaged. This brief suggests that state-imposed reciprocity requirements may have a difficult time surviving federal Commerce Clause challenges.

(c) **State law changes.**

- (1) Some Subcommittee members contend that state law would not need to be amended in order to allow some aspects of electric utility industry restructuring. See 1(d)(2), above.
- (2) Some Subcommittee members take the position that state law would need to be amended to clarify the authority of the Commission to take any of the actions (if any of such are part of a chosen restructuring path) on the following nonexhaustive list:

Require all utilities, including investor-owned utilities, cooperatives and municipally owned systems, to grant retail wheeling to all suppliers of electric energy.

Enable all utilities, including investor-owned utilities, cooperatives, municipally owned systems and other nontraditional energy suppliers, to engage in competition for the sale of electric energy;

Clarify franchise law to repeal any authority of municipalities to prevent all sellers of electric energy from serving within the borders of a municipality. The right to construct and maintain distribution facilities can still be subject to franchise for public safety reasons only.

Allow stranded cost recovery under certain conditions, as defined by the Legislature, taking into consideration, among other issues, cross-subsidization.

Adopt a statewide statutory approach to competition, including specific allowance of overlapping competitive franchises, mandating the Commission to allow market-based rates, clarifying who is a public

utility (including nontraditional market participants such as brokers, aggregators, and marketers) and what type of certificates of public convenience and necessity should be required for each supplier of electric energy, and allowing for a level playing field for all market participants.

Provide sufficient transition time to ensure fairness and stability. The Subcommittee members expressed a wide divergence of views as to the length of transition time, and the aspects of the restructuring path which would promote fairness and stability.

- (d) **State Constitution changes.** Article XIII, 4, of the Wyoming Constitution may need to be amended to repeal the franchise authority of municipalities, if this is a part of the restructuring path chosen.

The SOCIAL ISSUES SUBCOMMITTEE

GUIDING PRINCIPLES

The following guiding principles must be adopted if Wyoming elects to change the current method of delivering electrical energy to its consumers:

1. The opportunities and benefits of electric competition should be made available to the small use and residential customer as well as the larger commercial or industrial customer.
2. Any guiding plans for industry change should recognize the value of safe, reliable, and accessible electric service. (See also the report of the Reliability, Integrity and Safety Subcommittee, below).
3. Regulations must not give one supplier of energy-related services an unfair advantage over another whether they are municipal, investor-owned, rural electric cooperatives, independent power producers, or new market entrants.
4. Regulations should provide utilities with flexibility to satisfy the changing requirements of a competitive market.
5. State and local taxes should apply equitably to all providers of electric service.
6. Any proposals for industry restructuring should consider allowing for the recovery of transition costs. (See also the report of the Transition Costs Subcommittee, below).
7. Proposals for industry restructuring should consider the desirability of enhancing technology and facilitating investment in technological improvements, including the use of alternative energy sources.
8. Societal programs for the public interest, if retained as part of a restructured electric utility industry, should be funded over the widest possible base, and should disadvantage neither one energy supplier over another nor one energy consumer over another consumer.
9. Exclusive delivery service areas for distribution of electrical energy should be maintained, subject to non-discriminatory access provisions and capacity constraints.
10. Any service provider should have a significant presence in the community served so as to provide local quality service.

COMMONLY ASKED QUESTIONS

Should all customers be assured universal service and should a fund be established to subsidize high cost customers? Universal service for all customers should be assured and required, although it may be difficult to establish a subsidy fund for all high-cost customers. The Subcommittee believes that postage stamp rates should continue for distribution services in each rate class.

Should distribution service providers have an obligation to serve all customers or should they be allowed to select customers? The Subcommittee believes that certificated territories for distribution services should be continued; and therefore, the distribution service provider should have the responsibility to connect and provide distribution service to all customers.

Will captive residential customers realize a cost shift as a result of restructuring, and should these customers be protected from any adverse impacts of restructuring? If so, how? Wyoming is a unique state and many Wyoming residents enjoy low electric rates today (while others pay higher rates). However, due to its low population, there is a question among some stakeholders as to whether restructuring will result in lower rates for most residential, rural and small-use customers. Some members of the Subcommittee believe restructuring has the potential to be more of an equalizer of electric rates across the country than a benefit to the average Wyoming customer. Other stakeholders believe all customer classes across Wyoming, especially in higher rate areas, can receive lower rates under a restructured electric industry. Businesses, in general, dedicate a great deal of effort to managing costs and believe they should not be denied the opportunity to have access to competitive energy rates, just as they now have access to competitive suppliers for all other goods and services. However, the benefit of competitive energy rates should not remove the responsibility of insuring that all Wyoming resectric power.

IDENTIFIED SOCIAL CONCERNS

Essential (Basic) Electric Service
Defined Service Areas
Obligation to Serve
Universal Service/Fund
Economic Development
Environmental
Conservation
Reliability
Cost Shifting
Small Business
At Risk Customers
Rural Residents

Reciprocity
Cost of Capital, Debt, Impact on Capital
Green Pricing & Renewable Resources
Renewables and Set-Asides
Distributed Generation
Wind Resources
International Competition
Stranded Costs
Enhancement of State Energy Exports
Fuel Competition
Territorial Certification
Municipalities -- Home Rule

Utility Cooperation
Mergers and Takeovers
Tax Revenue and Liabilities
Cost of Technology in Billing
Capability Cooperation

Federal vs. State Determination
Rate Stability and Capacity
Continuity of Service
Current Overview of Generation Loading
Community Involvement

GENERAL OBSERVATIONS

The current average cost of electricity in Wyoming is among the lowest in the nation (although not all Wyoming customers have access to these low rates). As a result, opponents of restructuring believe that there is a risk of increasing power costs to residential and other low use customers in Wyoming. Proponents of restructuring note that there are some rate disparities within Wyoming and they argue that all classes of customers served by higher rate utilities would benefit from competition. Several states with rates higher than those in Wyoming are currently experimenting through pilot programs with electric industry restructuring. These experiments may be valuable to Wyoming customers.

In addition, the region's generation resources are being operated to minimize the cost of energy which currently helps keep Wyoming rates low on average. Also contributing to lower rates is the proximity to low cost fuel supplies which minimizes fuel transportation costs.

Opponents of restructuring argue that a majority of Wyoming consumers are not clamoring for a choice of their electric supplier. Proponents of restructuring counter that most consumers have had little opportunity to study objective information on the subject. Therefore, one option is to recommend that no action be taken until a detailed study of the potential economic, societal, safety and other impacts of retail competition is conducted. Any legislation or Commission order implementing restructuring must consider the results of the study and the impacts on customers, utilities and the state's economy.

Some members of the Subcommittee believe the intent should be to open the generation portion of electric service to competitive forces as soon as reasonably possible. The distribution and transmission segments would continue to operate as a regulated monopoly. This would allow customers to change the source of their electric supplies, but would require them to continue similar to the way they do now. Distribution and transmission services would be provided on a comparable, non-discriminatory basis.

Essential (Basic) Electric Service

One of the most critical social concerns is to assure that every residential, rural and small-use electric customer has access to affordable essential (basic) electric service. Within the time frame of producing this report, there was neither enough information nor expertise to arrive at a recommendation for essential (basic) service. This concern will

require further study as electric industry restructuring occurs in the future.

Defined Service Areas

At the present time, maintaining defined service areas for distribution service in Wyoming makes the most sense and the distribution services would continue to be regulated by the Commission. If certificated and defined service areas are retained in the future, universal service should be required and assured. There are so many uncertainties and individual issues that arise with respect to the concept of an open market that it would be difficult to envision how in particular a low usage customer would benefit from opening the market to competition in Wyoming. This view would likely be very different if Wyoming did not have such low population density and such a small population overall.

The Obligation to Serve

An important aspect of the traditional regulatory compact is the obligation to serve. The Commission has granted electric utilities the right to be the monopoly suppliers of electricity in return for providing highly reliable service at a reasonable and fair price. Generally, utilities have had to commit to serve all customers within their service areas.

Recent proposals for restructuring the electric utility industry could mean that utilities would be competing in the generation market while continuing to meet their statutory obligations with respect to transmission and distribution. Therefore, some believe that the utility should have no obligation to provide generation services to those customers who choose to switch to other suppliers. Others believe that customers who wish to return to the original supplier should be treated simply as new customers. While customers could contract with power suppliers in the open market, those customers choosing not to participate in the open market should be served by a designated provider of last resort. This is a reasonable quid pro quo for entering the competitive market of buying products and services.

No one should be refused the right to have electric power, but that does not mean every different class of customers is proper, although this system may need some minor changes to adapt it to a competitive environment. The idea that one class should subsidize another customer class has become obsolete with or without restructuring.

Investor-owned utilities have willingly assumed this obligation to serve, and have committed the shareholder capital necessary to acquire resources to meet anticipated customer needs. In addition, distribution cooperatives have taken the obligation to serve as a basic reason for their existence ever since they were founded over 50 years ago. Since cooperatives are owned by the same people who receive their services, the owners and the customers are the same. In the initial loan agreements and all subsequent agreements, there was a provision which requires distribution cooperatives to provide electrical coverage in certificated areas.

Distribution cooperatives were formed to provide service in rural areas which were thought not to have the ability to generate enough revenue or load to make line extensions feasible for other utilities. The formation of a cooperative gave the members some of the advantages of being able to purchase, in larger volume, the goods and services required to bring electric utility service to them.

Many cooperatives initially purchased hydroelectric power from the federal government; but, as energy demands increased, hydroelectric power became an uncertain option. Distribution cooperatives formed electric generation and transmission cooperatives which were charged with meeting the generation and transmission needs of their distribution cooperative membership.

With the combination of Commission-approved certificated territories, long-term debt instruments, and assurance of future power supplies, distribution cooperatives and investor-owned utilities established service in some rather remote locations across this country and in particular in Wyoming. With the advent of competition, the cost extensions must be reconsidered. In a sparsely populated state such as Wyoming, this change could have a negative impact on the ability of cooperatives to extend facilities.

The obligation to serve any customer who requests electricity is an essential principle of the current regulated system which should be maintained. Modifications to this compact in a restructured environment may change the traditional obligation to serve although at this time, it is unclear how or to what extent that change may take place. Customers who want the protection of back-up power from the local utility would pay for that insurance.

Universal Service and a Universal Service Fund

Universal service should be an obligation for any restructured electric service industry in Wyoming just as it is under the current regulated regime. The obligation to serve any customer who requests electricity is a fundamental principle and should be maintained. However, utilities which have built their systems based on this regulatory mandate should not be penalized by being required to serve high cost areas without full cost recovery. A restructured industry must mitigate the differences between customer classes to ensure that anyone who wants service can obtain it.

A universal service fund could be set up to aid in the payment of electric service for those customers located in higher cost areas and for low-income residential customers as appropriate. Some believe that a universal service fund is a social obligation which is rightfully among the prerogatives belonging to government and is typically not a direct responsibility or extension of private business.

All consumers should be assured of universal service. Establishing a subsidy fund

for high-cost customers may be difficult; but, if a cost shift is to occur as a result of restructuring, the impact should be buffered over some period of time. Because subsidies tend to go on indefinitely and become expected by customers, a buffer period would allow some phase-in to open market pricing, and could eventually disappear as customers begin to realize the realities and benefits of true open market competition.

One concept would be to assess a surcharge on all energy used and sold to consumers outside Wyoming which could be used to establish a statewide average rate per Kwh for the residential class. This fund could have a two-fold purpose, as proposed for similar funds in the telecommunications industry, (a) to equalize rates, and (b) to provide residential service connection for low-density, distant services.

If a universal service fund were to be established with the advent of electric utility industry restructuring, the burden for paying for this fund should be shared by all providers doing business in Wyoming. Assuring that all customers in Wyoming have electric service on a reasonable cost basis is a legitimate issue. If public policy makers determine that a subsidy is desirable, a suitable mechanism should be implemented.

Economic Development

Utilities have traditionally been strong supporters of economic development, and have participated in efforts to improve the business climate of their service territories. For some industrial customers in this state, Wyoming has some of the lowest industrial power rates in the nation. However, the price of electricity is not the only consideration for relocating industry to Wyoming. Economic development decisions are rarely made based upon energy prices alone. Such decisions are generally based on a number of factors which can include employment base, lifestyle, transportation, and other resource implications such as water, waste water treatment and the like. Electricity is only one factor and, its price is already attractively low in some portions of Wyoming compared to other states.

Large power consumers contend that a significant part of their operating costs are due to electrical rates and that the choice afforded to them by retail competition would give them more control over their operating costs. They could put more money into their businesses to make them stronger and more competitive. These restructuring proponents argue that it will drive down the price of power to potential new businesses, and would provide added incentive for them to locate in Wyoming with its low tax base. If new businesses come into Wyoming, this will provide additional jobs for Wyoming residents. But opponents of restructuring question whether this argument is valid since Wyoming already has, in some locations, some of the lowest electric rates in the country.

Environmental Concerns

Environmental protection is a philosophy to which many Wyoming citizens and businesses subscribe. Any restructured proposal must take into consideration

environmental protection or potential physical impacts on the environment. With new regulations concerning open access and absent federal guidelines to ensure consistency in environmental regulations, the environment in Wyoming and elsewhere should not be made to suffer. Duplication of facilities, siting and other environmental concerns must also be considered.

The electric utility industry in Wyoming was founded on the concept of clean energy. Wyoming has done very well under the current regulatory structure to maintain a good environmental profile for electric generation. If clean, scrubbed, coal-fired generation is displaced by new and less expensive forms of generation, stranded investment in plant and environmental concerns could result.

Conservation is another philosophy to which many citizens subscribe. Some believe that restructuring the electric industry will not enhance conservation because cost/benefit considerations may dominate other perceived benefits. Others take the view that significant environmental impacts will not result from restructuring because current environmental laws will continue to apply and because the Commission and other state and local agencies will retain authority over siting facilities.

Reliability

All Wyoming consumers demand and expect reliable electric service; and this service becomes even more important with the technological resources available to us in society today. More and more people rely upon electricity to run computers, fax machines, and modems that allow them the freedom to work in new and exciting ways. People have a right to expect that whatever form restructuring takes, they will still receive reliable electric service.

Reliability standards are difficult to develop and may vary with the size of load, service location. In a restructured environment, system reliability can be considered as two separate issues, which have always been linked in the past under the vertically integrated structure. These two issues are reliability of supply (a generation resource question) and reliability of delivery (a transmission and distribution service question).

Reliability of delivery is partly a function of transmission capability ratings. In addition, voltage control, maintenance of system frequency, and energy balance can be maintained by the system operator to the extent that customers cannot meet these obligations through purchases in the competitive market.

Reliability of power supply will be addressed through the market. Each customer, either directly or through power marketers, will be responsible for maintaining a portfolio of resources which meets the desired level of supply reliability. The decision made by the customer would be based on its judgment of the importance of cost measured against the possibility of an interruption of energy supply.

Cost Shifting

Because of cross-class subsidies which have existed in some utilities for many years, there could be rate increases for residential and small commercial consumers if large industrial consumers leave the system without any compensation to the utility. Utilities should begin to address these subsidies in their present rates to lessen the impact on the small consumer if retail wheeling should become a reality.

Cost-shifting is a major concern for members of the residential rate class. In cases where industries have reduced their usage or ceased operations, the fixed costs are borne by the remaining consumers. A universal service fund could help to mitigate changing customer usage. Electrical systems have been built to fill customer needs, and the cost of these systems are capitalized and rated for long-term durability. Restructuring could totally disrupt this long-term balance; and it is possible that rates for some customers could increase in a restructured environment.

Competition will create pressure to eliminate all subsidies between customers. To the extent subsidies exist, there may be shifts in prices to recognize cost of service. Public policy makers must decide what, if any, subsidies should continue to exist and make these subsidies explicit and non-bypassable. The idea that subsidies must continue for some customer classes should be scrutinized with or without open competition.

Small Business

Small businesses are likely to have similar experience as residential customers in their ability to take advantage of restructured open access electric markets. Because the large users may initially have a better capability for accessing the market and better means of sorting through advantageous pricing opportunities, special attention should be paid to the needs and the education of small business customers in a restructured environment.

Wyoming's retail customers currently purchase power in some locations at prices which are among the lowest in the nation. Small businesses are likely to need the ability to tailor electric service to meet specific needs, as are other customer classes. Local distribution companies and power suppliers must continue to be active participant in the communities they serve.

At-Risk Customers

At-risk customers may be those who, for health (e.g., life support or monitoring) or other reasons, need very extensive and reliable electric service. These customers may not be able to access an open marketplace for electricity and may, perhaps, be in danger of not receiving the expected reliability for life support systems or other critical needs. Their loads may be less attractive, and they may have little or no ability or expertise to aggregate their loads to take advantage of potential savings in a restructured industry.

Rural residents are at risk because they have particularly high cost distribution

requirements and usually do not pay the entire cost of their service. They are also, in many cases, part of an essential industry -- agricultural production. The special needs of such customers could be addressed through the designation of providers of last resort and in some cases, perhaps, a universal service fund.

Utility Cooperation/Capability Cooperation

Cooperation among utilities (during outages, storms, and other emergencies) has long played an integral part in providing good electric service. Some contend that competition will eliminate or reduce cooperation among competing utilities. However, good management would surely recognize that this spirit of cooperation must continue even in a competitive environment as no utility can foresee when it might be in need of assistance.

Under the current system, utilities are able to help each other out under circumstances such as storm outages and system breakdown by sharing facilities, manpower and equipment; and they do so by putting the system together regardless of other considerations. Under a restructured electric utility system, some argue that it is possible that a new factor will be added to decisions regarding restoration of service. That factor could be relative to who is a paying customer of the utility system or who is a wheeling customer in the system. In stronger benefit to restoring service to one customer or supply system rather than another, choices may be made on a competitive basis rather than on the basis of need or operational considerations.

In the current system of assigned service areas, Wyoming utilities cooperate with each other in regard to power quality, outages and other issues important to reliability of service. Some argue that these cooperative relationships could be jeopardized by turning cooperating utilities into competitors. However, issues such as loaning resources, service restoration assistance and technology support are primarily transmission and distribution concerns. The justification for cooperation regarding these functions will not change appreciably due to industry restructuring.

Mergers and Takeovers

Some contend that to become competitive, utilities must grow. Under this view, if growth does not occur from natural expansion within the service territory, then mergers and acquisitions must be considered. Although these business consolidations raise a social concern which would be difficult to quantify or qualify, the possibility of changing utility systems through mergers and takeovers has an affect on many people. There is a level of comfort with known service providers which could be disturbed by restructuring. There are possibilities of employee and job issues which are also social concerns.

Others, however, contend that the creation of a vibrant, competitive generation market will likely lead to more diversity of participants rather than consolidation. This, they contend, will occur because of the many new markets and business opportunities provided by a restructured electric utility industry. While it is generally recognized that a single

Integrated Grid Operator is the most efficient way to manage the transmission system of multiple utilities in a restructured industry, limited consolidation may have beneficial impacts on reliability and inter-utility cooperation.

Tax Revenue and Liabilities

Under traditional regulation, as utilities lose load, their revenues may drop. Every penny lost in revenue for the utilities means lost tax revenue for the State which depends upon these tax dollars for funding. Among many solutions, one may be to raise taxes to make up for lost revenue.

There is also a potential concern that power marketers who may come into Wyoming would not be making as great of an investment in the infrastructure of the state. Some would contend that in comparison with incumbent utilities, marketers and brokers would be paying less in taxes to build roads, operate schools, or invest in Wyoming's future. An alternative view is that taxes on physical plant assets will be unchanged by restructuring, and that restructuring could lead to increased generation assets for taxation purposes in Wyoming.

Reciprocity

In a competitive environment, it is important that all of the participants operate under an equal set of constraints and opportunities. These may include taxation, the obligation to serve, financing opportunities and contributions to socially beneficial programs such as low-income service support, DSM, and renewable energy. Effective competition also implies reciprocity among service providers. Any service provider which is afforded access to customers of another utility without having to risk access to its own customers by competing service providers has an unfair advantage. This concern extends beyond state boundaries and should include all suppliers.

Cost of Capital and Debt; the Impact on Capital

Many utilities have relied upon certificated territory as the justification for all-requirements contracts. This has been the basis for utility financing especially in the rural cooperative industry. Some contend that retail wheeling and the possible demise of certificated territories could mean that the financial markets would be less willing to make loans and that utilities would pay higher costs. Others argue, however, that only generation facilities would be affected and that utilities which are uncomfortable with the cost of financing generation facilities would be free to give up that portion of the market to those companies which are prepared to bear the risk of generation in a competitive environment.

The cost of money for capital financing purposes may increase under restructuring if loans for generation facilities are jeopardized through stranded investment. This possible scenario only underscores the need for policy makers to fairly address the question of transition cost. This issue is considered in more detail later in this White Paper.

Green Pricing and Renewable Resources

The Green Pricing concept offers customers the option of paying a surcharge on their electric bill to support renewable energy development. In surveys, people have indicated some level of support for this concept. However, renewables may not be capable of withstanding the potential erosion of electricity prices resulting from competition.

Under the Green Pricing concept, a developer would either work with a utility or solicit customers directly to pay prices for energy which would allow the developer to pursue the project. In this manner, the risk of failing to recover the higher costs of renewable projects is shifted from the utility to the developer. Many renewable developers believe that the market for green power will expand when people can choose it directly, which may be possible with or without restructuring.

In most states, the concept of externalities has not been adopted, or has been overturned upon challenge. The Wyoming coal industry is proud of its accomplishments and may oppose any effort to impose environmental externalities (surcharges for less environmentally favored generation) in Wyoming. Much of the concern about electric industry restructuring in Wyoming has centered around the perception that some customer rates may increase. The imposition of externalities on new generation would be likely to cause power rates to increase when these new generators are brought on line. Accordingly, some believe that policy makers should resist the imposition of externality costs with or without restructuring.

Renewables and Set-Asides

A renewable set-aside would require a utility to set aside a portion of its generation mix or power purchase portfolio for renewable resources. This is similar to Green Pricing.

Generation set-asides for renewable resources is largely a policy issue which can be resolved with or without restructuring. Restructuring by no means requires renewable set-asides; but, if such set-asides are considered desirable, proposals for restructuring would need to take the issue into account. It may be possible to encourage renewables through a system of incentives, including tax credits, tax exemptions, and streamlined siting for renewables. This issue needs to be considered in light of Wyoming's current tax structure.

Distributed Generation

While not inherent in or required by restructuring, distributed generation may prove to be an important element of a restructured industry due to advances in generation technology. Some of those potentially useful advances include fuel cells and small high-efficient isolated gas-powered combustion turbine generators. Other forms of

distributed generation include wind power and solar energy.

The potential for successful distributed generation will depend on how well developed the technology is and how competitive the price is for the power produced by these resources. There would be savings when distributed generation is located at the load site, perhaps reducing the need for transmission and distribution services. It is expected that distributed generation will become a matter of growing interest with or without a restructured utility industry.

The concept of small cost-effective generation located nearer the load center has some positive features including the potential to reduce energy losses. With distributed generation, back-up or standby-by service will need to be developed to insure that the load is not interrupted during maintenance or forced outages. These devices will need to be identified and operating procedures established to insure the safety of the utility maintenance or construction personnel.

Wind Resource

With or without restructuring, carbon emissions from burning fossil fuels are considered by a number of scientists as a contributing factor in global warming. Although Wyoming's coal fired power plants are very clean when compared on a national basis, more could be done to help the environment.

Some estimates indicate that as much as 10 gigawatts of wind capacity could be installed in Wyoming at various sites. There are several manufacturers of very reliable wind turbines which can now produce energy at competitive rates from 4 to 6 cents per Kwh. Nevertheless, wind resources need large scale development to provide a significant amount of continuous power for distribution to customers. This potential is being evaluated in Wyoming and should be considered at this point as having potential which has not yet been realized. There are numerous technological difficulties to be overcome in full scale wind generation, and there are avian concerns as well. Generally speaking, wind resources are considered additives to a stable resource base dominated by other fuels.

International Competition

More and more large industrial consumers are competing in an international market. Pricing of their products becomes even more important, and they will continue to aggressively pursue cost-cutting measures, including electric industry restructuring, to level the playing field with international competitors and to become more competitive in an increasingly global economy.

Stranded Costs

It is possible that some stranded generation investments could result from restructuring. The system has been constructed under the influence and guidance of regulators at the state and federal levels which has ranged from (a) regulation which

defines facilities as being within the realm of public interest; and (b) the environmental laws which rule how the facility is to be constructed and operated; to (c) federal laws which define policy and protect the national security. How stranded investment is determined and handled by any level of government oversight will be of major concern.

The calculation of stranded or transition cost depends largely on assumptions concerning the future market price for power. There is no certainty today to what degree, if any, Wyoming utilities will experience stranded costs. Some believe that stranded costs and investments should be the responsibility of the customer leaving the system. Others take a different view and many of these considerations are expressed later in this White Paper.

Enhancement of State Energy Exports

Energy exports from Wyoming may be possible if the cost of power continues to be cheaper here than in other states. Wyoming already produces some of the least expensive power in the nation. Opponents of restructuring argue that, if Wyoming exports power to other states, there could be a deficiency in service to Wyoming. These opponents contend that power would likely follow price and that, if a better price can be obtained elsewhere, it could diminish the supply available to Wyoming or drive up the price of power within the state. Proponents of restructuring argue that Wyoming has abundant low-cost fuel resources which make it unlikely that there will be any shortage of low cost generation facilities and opportunities in Wyoming.

The ability to export electrical energy from Wyoming is currently limited by the capacity of the transmission facilities. Current federal land use policies may delay the development of additional transmission facilities.

Wyoming resources will continue to be competitive and Wyoming coal will continue to provide a strategic advantage to siting generation in the state. Abundant wind potential could lead to additional siting of wind projects that could be used to meet the demands for renewable resources.

Fuel Competition

There are elements of competition in the existing system, even without restructuring, which could create pressures to diminish the use of existing generating resources in favor of other fuels. In Wyoming, there are large coal-fired generating plants which some argue could be de-emphasized or replaced by gas-fired generation under extremely low cost gas scenarios. If this were to happen, it could contribute to potential stranded investment through the closing of power plants and mines in the state.

On the other hand, others note that restructuring and competition in Wyoming could provide more markets and greater opportunities for the generation segment of the industry. Restructuring may well boost the markets for traditional fuels like coal and natural gas, as

well as alternative and renewable energy sources in Wyoming.

Territorial Certification

A basic element in restructuring will be whether or not territories are to be preserved for the utilities within Wyoming; and these territorial issues exist among the municipalities, rural electric utilities and investor owned utilities. The municipalities have the option, under the constitutional protection of Home Rule, to determine at least distribution utility services within their boundaries.

Key restructuring challenges will be to balance the mix of free open market access, to provide affordable energy to all consumers who desire service, and to assist in keeping industrial customers competitive by not overburdening them with stranded investment or other social costs. Some utilities may have a difficult time determining how to compete and provide universal service without maintaining some form of certificated area. Critics of restructuring argue that there is no motivation to extend service to a remote ranch or isolated location if there is no prospect for long-term cost recovery through rates. Proponents of restructuring argue that this problem can be readily solved by the continuing obligation to deliver on the part of the distribution utility or by the designation of providers of last resort to ensure universal service.

Municipalities - Home Rule

The municipalities have at their option, under the constitutional protection of Home Rule, the ability to determine at least distribution utility services within their boundaries. If territorial boundaries no longer exist for generation utilities under a restructuring scenario, opponents fear that municipalities which generate power could be open to the same kind of cherry picking and loss of load that other generation utilities might experience.

Home Rule is a cornerstone of self-government of municipalities in Wyoming. Municipalities are much more aware of their unique problems than either the state or federal government. This is a privilege granted by both state law and the Wyoming Constitution and has allowed municipalities to effectively and efficiently govern their citizens and provide reliable and essential services for their benefit. Retail wheeling presents a challenge to this concept, and could be difficult for those municipalities which own their own electric distribution system or grant franchises to others. On the other hand, proponents of restructuring note that private, non-governmental generation may reduce rates for municipal customers due to the market forces of competition and technological innovation.

Federal vs. State Determination

Currently, there are proposed bills before the United States Congress on restructuring the electric industry which could change state regulation of electric utility territories, operations and costs. Some support federal legislation which would mandate

retail access for all customers nationwide but which allow considerable state discretion on how to implement retail access. Adoption of federal legislation would only establish a framework for industry change by dealing with the issues that extend beyond state borders such as reciprocity and the environment. States would continue to play an important role in setting policy for their jurisdictions on matters such as social concerns.

Rate Stability and Capacity

Some believe it will be difficult for utilities to plan for the future and assure that consumers have access to stable rates if retail wheeling were introduced. They believe that since Wyoming's electrical rates for some customers are very low by national standards, a majority of Wyoming customers are not clamoring for choice of their electric supplier.

On the other hand, other stakeholders believe that many customers have not had the opportunity to study the restructuring issue in detail, and believe that all customers should have the ability to choose a generation supplier. One of the choices that is expected to be available is the choice between long-term stable prices or shorter-term market prices. Under some proposals, market price could vary each hour.

Continuity of Service

Generators of electricity should be required to contribute to spinning reserves (reserves available rapidly to meet changes in levels of demand), and should stand ready to purchase power if necessary to replace their primary generation to insure continuity of service to customers. Some parties believe electrical generators should be required to serve the residential and small business customers and be designated as providers of last resort even when higher priced electrical sales opportunities are available.

Cost of Technology in Billing and Equipment

With the advent of computers, billing costs and adjustments are not significant; but each additional complexity introduced into the billing process may increase the cost to Wyoming's electrical customers. If restructuring is implemented, policy makers will need to focus on minimizing any cost increase associated with billing electrical customers.

Current Overview of Generation Loading

The Western Area Power Administration (Western) currently operates a control center for dispatching bulk purchases, sales, and generation levels in the control area of Western Colorado and Wyoming. Every hour, utilities that have generation, sale, purchase contracts and load responsibilities prepare schedules for the next hour. Western compiles these schedules, loads the generation units, and uses the control to minimize the generation costs. One unit in the area adjusts to accommodate the actual load pattern. These deviations from the schedule are allocated to the appropriate party and adjustments

are made in future schedules.

When a utility has a generation unit out of service for maintenance, the schedules are adjusted to cover the loss of this generation resource. These adjustments are made for every hour throughout the year. At the end of each month, the metering points in the control area are read and bills or invoices are produced for each of the parties in the control area. This system provides each wholesale electrical provider the opportunity to have the lowest cost power possible. Proponents of restructuring argue that the lowest cost power should also be made available to retail customers and not merely to wholesale suppliers.

Community Involvement

Traditional utilities have taken social responsibility seriously and have backed up their beliefs with donations of money and volunteer leadership to worthwhile community projects. Outside power marketers may not demonstrate this same sense of social responsibility.

Some parties believe that any service provider should have a significant presence in the community served in order to provide quality service. The recent industry-wide trend to close local utility offices and consolidate customer service functions has met with mixed reactions from municipal leaders and customers. Some stakeholders take the view that utility service cannot be run likebe on hand to help customers in the community. Utilities should not simply expect to take money from a community, but should make meaningful contributions back to the community.

The IMPLEMENTATION SUBCOMMITTEE

The objective of the Implementation Subcommittee was to determine *how* the electric industry might go about restructuring if it were determined that the State of Wyoming should pursue this as a goal. The question of how this might be accomplished contains at least five fundamental concerns:

1. *How could the differences between customer classes be recognized and dealt with?* Should customers in specific classes and with unique usage characteristics (a horizontal option) be the only ones eligible to engage in restructured activities; or should all customers and all classes (a vertical option) be eligible to engage in a restructured environment?
2. *How could the transition from a monopoly to competition be structured?* Should it be phased-in with pilot programs and experimental tests; or should all customers, all classes and each utility in Wyoming simultaneously jump into a new operating environment all at once? Should Wyoming defer implementation and adopt a wait and see attitude while observing surrounding states and policy changes at the federal level?
3. *How does customer education fit into a restructured electric industry?* Who will educate customers and how is the message most effectively delivered? How should education efforts be funded?
4. *How will customers be served in a restructured electric industry?* Who will conduct metering, billing and customer service functions? What will the customer's bill look like and who will customers contact concerning questions on their bill? How often can customers change their service providers and at what cost?
5. *How will customer exit and entry be handled?* Should customers be allowed to leave and return to the incumbent utility on a non-discriminatory basis? What is the utility's obligation to serve?

HOW COULD THE DIFFERENCES BETWEEN CUSTOMER CLASSES BE RECOGNIZED AND DEALT WITH?

One important consideration is how customer classes would be divided into retail customers; the horizontal option and the vertical option. A horizontal option means that customers in a particular class (i.e., residential, commercial, industrial, irrigation, etc.) or customers with certain usage characteristics would be eligible to participate. A vertical option selects some customers from all classes for participation. With either the horizontal or vertical approach, the size of the segment may be capped at some percentage of the initiating utility's load and/or as a proportion of the individual participating customer's load.

Horizontal Option

Advantages

A horizontal option allows an unbundling or restructuring experiment to focus on those customers who are currently the most accessible to alternative suppliers. Restricting participation to select customer classes reduces administrative expenses and simplifies data collection and feedback.

Disadvantages

A horizontal option could potentially deny participation by certain large commercial or industrial customers who are in customer classes which are generally considered to be non-price sensitive, and who, therefore, would not be included in the retail access transition.

Vertical Option

Advantages

A vertical option allows a portion of all customer classes to have market access. By including all customers, a vertical option provides the most comprehensive information for effectively completing the transition to full retail competition. Experience in important transition issues, such as metering, would be lost in a horizontal option limited to transmission level customers. A vertical option allows broader participation and provides better public understanding and support for change in the electric industry.

Disadvantages

An experiment involving a relatively small segment of small commercial and residential customers could produce a market response which would be uncharacteristic of full-blown competition. Such a response would likely skew the data of the market response, although data related to metering and technical response would still be useful. In a pilot program, power marketers might offer unrealistic incentives and prices (loss leaders) to smaller customers in order to build market share.

HOW COULD THE TRANSITION FROM A MONOPOLY TO COMPETITION BE STRUCTURED?

State commissions have generally chosen to initiate the transition from regulation to competition in the electric industry either (i) through a phase-in process; (ii) through simultaneous implementation where full market access for all customers is designed to occur over a predetermined period of time; or (iii) by deferring electric restructuring for a period of time.

The phase-in process.

The transition to retail competition in the Wyoming electric utility industry could be accomplished in a flexible manner by addressing transition issues along several parallel tracks. By adopting an initial movement to competition now, Wyoming stakeholders could strategically address a number of other related multi-jurisdictional issues over the next several years. In this manner, the transition to competition could be phased-in and

proceed sequentially, before all ancillary issues have been fully resolved. The evaluation of other issues could be conducted with the necessary flexibility to integrate any future Wyoming and federal legislative initiatives relating to the electric utility industry. Here is how it might proceed:

A. Initiate Class Phase-in

Under this transition method, retail electric customers could be provided with opportunities to select competitive electricity options over a predetermined period of time and in a designated order. A gradual phase-in to retail competition provides a clear signal of a no-return to regulation policy. A representative timetable follows.

- | | |
|---|--------|
| a) Obtain necessary legislation for state-wide restructuring | year 1 |
| b) Conduct Commission phase-in hearings | year 1 |
| c) Phase-in retail access for large-load customers | |
| Stage One: Partial open access
(Twenty-five percent of loads plus incremental loads) | year 2 |
| Stage Two: Unrestricted open access
(Fifty percent of large load customers) | year 2 |
| Stage Three: Unrestricted open access
(100% of large load customers) | year 3 |
| d) Phase-in retail access for small customers | |
| Stage One: Open access for five percent of all small-load
customers (lottery if over-subscribed) | year 2 |
| Stage Two: Managed phase-in for small-load customers | year 3 |
| Stage Three: Unrestricted open access for all small customers | year 4 |

Phased-in implementations of retail customer access could also follow properly-designed retail access pilot programs. Although such combinations of pilot programs and phased-in implementations could be considered by some as providing a weaker signal than a purely phased-in approach, a pilot retail access program could still provide a customer choice signal greater than the current status quo. Properly designed pilot programs, when linked to well-defined phase-in programs, illustrate a regulatory commitment to competition, with continued regulatory flexibility in evaluating the final transition strategy.

B. Initiate Retail Access Pilot Programs

Retail access pilot programs could be used to introduce Wyoming customers,

utilities and regulators to electric competition through a gradual transition. Such pilot projects could be initiated for both horizontal and vertical customer options to learn more about the details and ramifications of the retail marketing of electricity. With a small controlled group of large commercial or industrial customers (or other price-sensitive customers), retail access programs could be evaluated and modified to provide the most socially and economically efficient manner of making the transition to a more competitive electric utility industry.

Initial retail access pilot programs, when followed-up by the phased-in implementation of customer retail access, could be beneficial to Wyoming. The implementation of consumer choice through retail access pilot programs could begin prior to the final resolution of all transition issues. A representative timetable follows.

- | | | |
|----|--|-----------|
| a) | Initiate retail access pilot programs | years 1-2 |
| | Target pilot group members | |
| | Horizontal option | |
| | Vertical option for major classes | |
| | Determine program criteria | |
| | Length of program | |
| | Customer load sizes | |
| | Specify how programs would converge into final retail access rates by end of pilot program | |
| | Determine rate design | |
| b) | Obtain necessary legislation for state-wide restructuring | year 1 |
| c) | Conduct Commission hearings on outstanding issues | year 1 |
| d) | Phase-in retail access to all pilot program customers | years 2-3 |
| e) | Phase-in retail access for all other customers: | |
| | First year 25% | year 2 |
| | Second year 50% | year 3 |
| | Third year 75% | year 4 |
| | Fourth year 100% | year 5 |

C. Market proxy and retail access rates for selected customers

In the event of concerns that retail access pilot projects could not be implemented prior to changes in Wyoming statutes or the completion of Commission hearings on certain subjects, the transition to retail access (pilot programs or phase-ins) could be preceded by

market-proxy rates. Market proxy rates are a regulatory tool that could assist Wyoming utilities to retain price-sensitive large commercial and industrial customers and discourage system bypass while awaiting the completion of hearings or legislation. The Commission could initiate an alternative path to competition using market-proxy rate pilot programs for price sensitive customers that would evolve into a phase-in of those regulated market-proxy rates to competitive retail wheeling rates. Implementing market-proxy rates -- essentially modified time-of-day or real-time-pricing rates -- appears to be within the existing scope of authority of the Commission and could be initiated prior to obtaining any necessary changes in Wyoming statutes to implement retail access and electric utility restructuring. Retail wheeling and competitive access programs could be implemented after receiving any necessary changes in legislation or Commission rulings on other restructuring issues. A representative timetable follows.

- a) Market-proxy rates for selected price-sensitive customers year 1
 - Target pilot group members
 - Horizontal option; Vertical option for major classes
 - Determine type of rate (hourly, daily, weekly or monthly)
 - Determine phase-in parameters
 - Customer selection; Speed of phase-in
- b) Obtain necessary legislation for state-wide restructuring year 1
- c) Conduct Commission hearings year 1
- d) Phase-in retail access for market-proxy pilot customers years 2-3
 - Target pilot group members
 - Horizontal; Vertical
 - Determine rate design
 - Determine phase-in parameters
 - Customer selection; Speed of phase-in
- e) Phase-in retail access for all other customers

First year	25%	year 2
Second year	50%	year 3
Third year	75%	year 4
Fourth year	100%	year 5

The simultaneous implementation process.

The transition to retail competition could be instituted by making customer choice available to all customers simultaneously, regardless of customer size, rate class or price-sensitivity. Proponents contend that a simultaneous offering would provide the most equitable treatment among customers, giving all customers an equal opportunity of realizing the full benefits of retail access.

With simultaneous implementation, there would be no restrictions on retail access and all transition issues would need to be fully resolved prior to implementation. Consumer education programs should be completed prior to any simultaneous implementation of retail access programs. Under this concept, the inherent logistical problems of processing a potentially large number of customer applications for competitive retail electric service during simultaneous implementation would be counterbalanced by the longer planning lead-time prior to the implementation as compared to other transition implementation techniques. Simultaneous implementation advocates contend that, as a safety net, many problems with large volumes of customer choice requests could be mitigated by instituting a lottery-type process to smooth the transition which would essentially result in a phased-in vertical implementation approach. A representative timetable follows.

- a) Obtain necessary legislation for state-wide restructuring years 1-3
- b) Conduct Commission hearings years 1-3
- c) Initiate simultaneous implementation for all customers year 5

The deferral method.

A third implementation scenario addresses the concern that any implementation of electric utility retail access in Wyoming may not be feasible for a number of years. In this situation, flexible rates and market-proxy rates could be used as place-holders within the current authority of the Commission to mitigate system bypass by price sensitive customers. Implementing retail access could then start when the necessary legal and regulatory concerns had been resolved. One representative timetable follows.

- A. Defer retail access while providing customer choice (8 year window)
 - a) Initiate regulated customer choice programs year 2

Target pilot group members
Horizontal option
Vertical option

	Determine type of rate Flexible rates Market-proxy rates	
	Determine phase-in parameters Customer selection Speed of phase-in	
b)	Obtain necessary legislation for state-wide restructuring	years 2-5
c)	Conduct Commission hearings	years 4-5
d)	Initiate retail access pilot programs	years 4-7
	Target pilot group members Horizontal option Vertical option	
	Determine program time frame	
	Determine type of rate Retail wheeling rates Market proxy rates	
e)	Initiate consumer education program	year 8
f)	Initiate phase-in customer choice	year 8

The next scenario involves deferring any significant customer choice programs until federal legislation was passed that would require states to give all customers choice in their energy provider. Within these federal guidelines, states would then have the flexibility to implement plans that best meet their unique needs.

B.	Defer retail access pending enactment of federal legislation, while providing customer choice (5 year window):	
a)	Pilot programs	year 1
b)	State legislation signed	year 1
c)	Federal legislation signed	year 1

- d) Performance based rates implemented years 1-3
- e) Rate unbundling years 1-3
- f) Reciprocity issues settled years 1-3
- g) Phased-in retail access
 - 10% customer choice year 2
 - 25% customer choice year 3
 - 50% customer choice year 4
 - 100% customer choice year 5

Another scenario, emphasizing the comprehensive study of the impacts of restructuring on Wyoming (as discussed throughout the White Paper), follows:

- C. Defer action on implementation pending further study:
 - a) Further analysis year 1
 - 1) FERC's Rule 888, deregulation of the electric transmission section is fully in place and the results have been analyzed.
 - 2) The process, mistakes and experiences of other states have been analyzed.
 - b) Independent, unbiased study year 2
 - 1) All impacts of retail competition on Wyoming's electric utilities should be analyzed.
 - c) Possible legislation year 3
 - 1) If the analyses and studies indicate that retail competition is in the best interest of the state and all of its electric consumers, then enabling statutes could be proposed.
 - 2) The legislature, in its best judgment, could enact statutes to allow the PSC to develop carefully designed change in the structure of the industry, combined with:

the recommendations of the economic analysis

documented favorable outcomes of similar processes
in other states, and
protection for all Wyoming consumers

HOW DOES CUSTOMER EDUCATION FIT INTO A RESTRUCTURED ELECTRIC INDUSTRY?

An extensive education process is a critical component in the marketing program. Education will be necessary to ensure that consumers are protected from potential abuses in get rich fast or save more now marketing schemes.

During the education process, it will be necessary to determine the questions which must be answered. The questions below identify the primary issues which must be addressed following any decision to implement retail wheeling or other restructuring initiatives in Wyoming. These are basic questions regarding billing, service, and recourse for failure to perform. It is the responsibility of the Commission, the Legislature and other policy makers to develop appropriate answers to each of the following questions as part of opening electric retail markets to competition. Many of these questions will require policy decisions by the Commission or implementing laws while other questions will simply need to be answered by the consumers themselves. The questions below could be answered through a series of public notices, public education efforts, announcements, public meetings, rule makings, press releases and other means of communication.

What overall electric industry changes are anticipated (or approved) and how will they affect individual customers?

What will be the components of the customers bills and to whom do customers pay their bills? Who will customers contact regarding their bills?

Who will customers contact with concerns about service and who will provide repairs of system facilities?

How will customers choose levels of service and who will provide advice as to whether the service selected may be adequate for customer needs and desires?

Who has the responsibility to restore power if customers choose a provider other than the current incumbent provider?

What procedure will be used and what fees will be incurred if the customer wants to change providers and then return to the original provider?

How often can the customer change service providers and at what cost?

Will there be a funding mechanism to support service to customers in high cost areas?

What will be the role of regulation and what services and protection will the Commission continue to provide to customers?

Who are available power marketers and how will the list of providers be determined and provided to customers?

In order for an effective education process to take place in Wyoming, the Subcommittee recommends that the following steps be taken:

1. The changes in the Wyoming electric utility industry should be announced.
2. The Commission should establish a process for educating all Wyoming consumers and answering the preceding questions. It should, however, be the responsibility of the Commission and not the individual utilities to educate Wyoming electric consumers to insure that all customers are part of the same education process.
3. The Commission would then implement the utility education program. The Subcommittee anticipates that some additional funding would be required for the Commission in order to implement a one-time special customer education program.

Following the education process, the marketing of electricity by qualified providers could begin. The consumers should be educated on the process and then it would be the responsibility of the consumers to pursue the power provider they wish to choose. It is the Subcommittee's opinion that there should not be a balloting or choice program established among power providers. Customers who do not pursue a change will continue to be supplied by their current supplier.

The education of Wyoming consumers is an integral and necessary part of any implementation system. It must take place in order to protect consumers from potential abuses as a result of retail wheeling.

HOW WILL CUSTOMERS BE SERVED IN A RESTRUCTURED ELECTRIC INDUSTRY?

Customer service, billing and metering issues are at the core of the implementation of competition in the electric utility industry, as these services are important points of contact with customers. Regulators and legislators will want to ensure that residential customers continue to receive quality service with the least disruption possible, should

electric industry restructuring be implemented in Wyoming.

The following questions were raised regarding customer service, billing and metering. Some preliminary thoughts or answers are provided based on the Subcommittee's review of studies and pilot projects in other states and on discussions with other utility professionals:

Who determines the adequacy of service and what information will be provided to make this determination? In a truly competitive electric utility environment, the customer will be the sole judge of the adequacy of service. However, during the transition period, the Commission should establish rules and potential incentives for distribution service providers. Rules or standards are also necessary to assure satisfactory behavior on the part of power marketers.

How would customers choose equipment or levels of service? Customer services could be handled either by the distribution company or the power marketer. If the local distribution company provided the services, they would be billed to the power marketer and included in the cost of serving the customer.

Who takes customer calls for service? Power marketers will need to inform customers about the energy services they provide, and this could be accomplished through advertising and public notices. Traditional and expanded distribution services will also be available through the incumbent utility. There must be a clear delineation of service responsibilities at each functional level so that customers (and service providers) clearly understand who should be contacted for help with customer service needs and complaints.

Who performs customer billing (and is this function regulated)? Who bears the loss from uncollectible bills? Who administers aggregate billing? How are partial payments applied or distributed to the various providers? Who handles bill collection functions and what happens in the case of non-payment? Will shut off limitations still apply? Each service provider should either bill and collect for the services it provides or contract with another provider for billing and collection services. The power marketer would pay the distribution, transmission, and generation providers for power delivered and would be responsible for meeting customer needs from the point actually delivered to the customer's premises. The Commission would probably have to require some standardization of information.

Who provides service if the marketer disconnects? Is there an obligation to serve every customer and to whom does that obligation belong? Who pays for uneconomic line extensions? Who pays for a line relocation or service interruption? Who buys or owns the meters? Who reads the meters? Who is responsible for the accuracy of the meters? Who pays for remote meter reading?

The local distribution company (the incumbent utility) will own, operate and maintain the electric distribution facilities up to the point of delivery to the customer including any metering. This would be applicable to either overhead or underground facilities. It would be the local distribution company's responsibility to read meters installed at the customer's premises. Any additional costs for specialized meter reading services, including remote meter reading, that may be required by the customer, will be negotiated between the customer and the local distribution company.

Since electric service is a basic necessity, any transition to a competitive retail market must address the needs of all customers. Fair and non-discriminatory mechanisms must be in place to allow all customers to participate without encountering unnecessary complexity. Additionally, in a fully restructured industry, regulatory and administrative processes should be realigned to meet the regulatory needs of the new industry structure while maintaining the appropriate level of oversight to ensure effective protection for customers.

HOW WILL CUSTOMER EXIT AND ENTRY BE HANDLED?

In any retail access pilot program conducted in Wyoming, participating customers should be allowed to return to the utility system on a non-discriminatory basis. Although customers of a specified load size may purchase energy from sources other than their distribution utility during any pilot program, these pilot programs should not characterize the customer as having permanently left the incumbent distribution company. In any future competitive retail electric market in Wyoming, the utility's obligation to serve should be replaced by the obligation to connect.

Another view is that customers should be able to return to regular utility service without impediment, at least while any stranded investment charges are applicable. Other state utility commissions have dealt with this issue by not imposing (or not allowing) any restriction on the number of times that customers may exit from and return to basic service.

Some hold the view that each returning customer should be treated as a new customer. Therefore, planning, design and negotiations of a new service contract may be required for a returning customer. This may require a contract with the returning customer, giving consideration to the location of the customer on the existing distribution system.

The Subcommittee expressed two divergent views on the issue of duplication of facilities. The facility currently receiving electric service must be reviewed and approved by the Commission in an open hearing. There should be no duplication of facilities in any area where existing facilities have adequate capacity or can reasonably be upgraded to provide power for a new or increased load.

The opposing view is that duplication or bypass of facilities should be fully allowed

as part of the restructuring efforts in Wyoming. This position does not propose that end users of the duplicate facilities would be relieved of any existing facilities costs assigned to them through contracts or other means approved by the Commission. The right to build duplicate facilities is, in this view, an integral part of the customer choice doctrine that allows customers to select whatever power option they desire. For instance, if a customer chooses to [i] pay an exit fee to the incumbent utility, [ii] pay for the construction of duplicate facilities, and [iii] purchase power from an alternative provider, this right should not be restricted. From this point of view, the jurisdiction for permit approval for duplicate facilities should not reside with the Commission but should be delegated to local or state zoning commissions, including possibly environmental agencies. It is fully expected that the vast majority of duplicative facilities will involve small projects constructed on private property.

Incumbent utilities properly note that economics should theoretically always favor existing facilities. However, other factors may bear upon any decision to duplicate facilities besides economics. This situation helps to emphasize that incumbent utilities should be given the flexibility of pricing facilities to compete with new outside market participants. The policy decision approving the possibility of duplicate facilities also argues for the associated pricing freedom. The policy decision to allow duplicate facilities has proven itself useful in the competitive restructuring of the gas the restructuring of the electric industry.

Electric rates would need to be unbundled for any customers planning to take service from an electricity supplier other than its current provider. In that way, the local utility would be responsible for providing wheeling over distribution facilities with an unbundled distribution rate approved by the Commission with any other Commission-approved distribution-related service charges to be billed by the local utility. The power would be wheeled over transmission facilities under an open access tariff or tariffs from the FERC. Electricity generation from another electric utility, broker, aggregator or other source of supply would be paid for at a market-determined rate. Any other ancillary charges for providing the level of reliability of electric service desired by the customer would be based on either FERC open access tariffs or a market-determined price.

Customers choosing to remain on the system of the local electric distribution utility may well choose to take service using a bundled rate which would be similar in concept to comprehensive utility service rates currently in use. Customers should have access to unbundled service options which would allow them to tailor their services from the local utility.

The TRANSITION COST SUBCOMMITTEE

The Transition Cost Subcommittee developed a list of underlying assumptions which defined the scope of its evaluation. These assumptions are:

1. Electric Industry Restructuring -- There will be transition costs only if some type of electric industry restructuring or retail access occurs; absent these changes to the industry, there will be no transition costs.
2. Cost Estimate -- Rather than focusing on estimating a total transition cost for Wyoming, transition costs will be specific to each utility serving in Wyoming and will vary depending on timing, mitigation efforts, recovery opportunity, and recovery approaches, as discussed in this paper. Implicit in this assumption is that each utility will have the flexibility to file (or not file) with the Commission its own individual plan for transition cost recovery.
3. Certificated Service Territories and Distribution Facilities -- These two areas will remain regulated by the Commission in much the same manner as they are today. Such regulation will include rate regulation of distribution services, facilities approval, and maintenance of existing service territories. Therefore, there will be no stranded investment or inability to recover costs of distribution facilities and services.
4. Transmission Rates -- Transmission rates will be regulated and determined according to FERC Orders 888 and 889, or any successor rules or tariffs adopted by the FERC.
5. Generation Resources -- The Subcommittee assumed that, at least initially, the transmission and distribution delivery system for electricity would be the same under restructuring as it is now. Thus, this portion of the paper focuses on the costs associated with generation assets only. However, as competition develops, there may be exceptions to this rule which are not covered in this White Paper.
6. Transition vs. Stranded Costs -- The term transition costs includes stranded costs as well as all other potential implementation and economic costs associated with electric industry restructuring.

RECOMMENDATIONS

1. **Pilot Programs.** The Subcommittee recommends that, prior to proceeding with full-scale retail competition, the following steps should be taken: [i] retail competition experiments in other states should be surveyed; [ii] the best practices from these

experiments should be sought out; and [iii] one or more small scale pilot projects, which would be voluntary for both participating utilities and customers, should be implemented in Wyoming.

2. **Economic Impact Analysis.** The Subcommittee recommends that, prior to implementation of retail competition, a study should be performed to estimate the impact on the Wyoming economy. While some studies have been conducted on the economic impact of electric industry restructuring in states where the price of electricity is relatively high, no studies have focused on low-cost states like Wyoming. At a minimum, the study should include the following subjects: utility companies; industrial, small commercial, agricultural, and residential customer classes; profits; jobs; tax payments (both property and revenue-based); cost shifting; and the multiplier effect associated with the economic changes.

Definition of Potentially Stranded Costs

The term *potentially stranded costs* refers to any costs incurred by a utility which the utility could have reasonably expected to recover at cost-of-service-based prices under the previous regulatory (or, for municipalities, public ownership) regime, but which it may not be able to recover if the electricity industry were to be restructured. Potentially Stranded Costs include fixed or otherwise unavoidable costs which would produce prices higher than those established by a competitive market.

Stranded costs are potentially stranded costs which become realized if a customer buys power elsewhere and regulatory authorities do not establish a transition cost mechanism to recover the associated potentially stranded costs.

There are at least three categories of potentially stranded costs:

1. Non-Owned and Other Deferred Costs (Commission Imposed) -- For example, QF (Qualifying Facility) power purchases, deferred DSM/DSR (Demand Side Management/Demand Side Resource) costs, deferred pension costs, and deferred income taxes. This category is sometimes referred to as regulatory assets.
2. Owned Resources Permanently Above Market -- The fixed costs of utility-owned resources, excluding variable running costs, which, if included in prices, would produce prices higher than those a competitive market would establish for the foreseeable future.
3. Owned Resources Temporarily Above Market -- The fixed costs of utility-owned resources, excluding variable running costs, which, if included in prices, would produce prices higher than those a competitive market would establish currently, but which would be consistent with market prices in the reasonably near future.

Determination of Transition Costs

Few issues in the discussion of electricity industry restructuring are as hotly debated as the issue of transition costs. Generally, transition costs can be described as those costs already incurred by a utility which would be recovered by the utility under the status quo but which would *not* be recoverable in a competitive market. For the utility industry in the United States, various estimators place the magnitude of transition costs to be roughly \$100 billion.

It is likely that the transition cost issue will be resolved in many different ways in many different places if electric industry restructuring and retail competition proceed. One commonly held view, however, is that all utilities should be driven toward fairly minimizing the book value of assets, and fairly maximizing the market value of assets. These actions would help utilities minimize their transition cost exposure and help utilities to be better prepared and positioned to compete in the marketplace.

Regulators will have to address a wide variety of customer, investor, and societal impacts in evaluating the issue of transition costs. To focus the issues, eight items have been identified for consideration in developing any transition cost recovery plan:

- Clear administrative and technical implementation requirements,
- Ease of implementation,
- Basing transition cost estimates on publicly-available data and models,
- Including all relevant assets and liabilities,
- Determining the time periods for recovery,
- Determining how selected valuation methods estimate market price,
- Constructing comparable regulated and competitive market prices
(e.g., properly allowing for the effects of income taxes), and
- Understanding the effects of market dynamics on transition costs over time.

Although many different methods have been proposed to determine the transition costs for a particular utility, all methods can be generally classified in a framework composed of three categories, each with two elements, as originally proposed by San Diego Gas & Electric. The three categories, which are more fully described below, are [i] valuation (administrative or market), [ii] timing (ex ante or ex post), and [iii] focus (top-down or bottom-up).

Asset value can be determined either administratively or by the market. Administrative methods use forecasting, modeling, simulations, or other analytical techniques to estimate the regulated and market value of utility assets. Where no market exists for an asset, or where market power is not a concern, administrative valuation techniques may be attractive. A disadvantage, however, is that these methods alone do

not encourage utilities to mitigate transition costs. In a market valuation, asset sales, auctions, spin-offs, and forced leasing may be among the methods used. This method has advantages in that market forces will determine the value of an asset or a portfolio of assets, and that it can be used to alleviate market power concerns. A disadvantage is that the timing of market valuation can clearly impact the perceived value.

The timing of the valuation can affect the transition cost calculation. If the valuation is done before restructuring proposals are implemented, the valuation is *ex ante*. *Ex ante* valuation requires that estimates be made up front, which increases the cost risk for the stakeholders. (Will I pay or recover too much or too little?) However, it does provide cost certainty for making ongoing business decisions. If valuation is after implementation, the method is called *ex post*. *Ex post* valuation is admittedly more accurate, which resolves the issue of uncertainty, but it does increase the cost risk for players who must make decisions today not knowing what the reward or penalty will be until much later.

The focus of the valuation can also affect the calculation. The top-down valuation approach looks at the utility, or a portfolio of assets, as a whole. The advantage here is that information is more readily available, it is easier to analyze, and it automatically nets above market and below market assets. The bottom-up approach examines each asset individually. Although perhaps more accurate, this method requires much more information and is more complex to administer.

The two tables which follow summarize some of the strengths and weaknesses of the eight combinations of valuation methods. Table 1 deals with administrative methods, while Table 2 covers market methods.

Many different calculation methods can be derived from the eight basic models. As an example, the revenues lost approach for recovery of certain wholesale transition costs, permitted under FERC Order 888, can be categorized as an administrative, *ex ante*, top-down approach. Although many other detailed methodologies have been proposed, it is beyond the scope of this paper to review and analyze the merits of each one. This task should be undertaken at the appropriate time based upon the specific needs and timetables determined appropriate for Wyoming. It can be stated, however, that *ex ante*, top-down approaches may be preferable in that more readily available summary data can be used, stakeholders can know the financial implications in advance, and implementation is easier. Regarding the choice of administrative or market methods, the preferable approach may hinge more on market power issues.

Table 1

General Administrative Valuation Approaches

Approach	Strengths	Weaknesses
1. Ex ante, bottom up	<p>A. Provides up-front estimate of transition costs.</p> <p>B. Includes all categories of assets and liabilities.</p> <p>C. Detailed analysis linking transition costs to specific assets (which reduces accounting concerns by linking transition costs to changes in book values of specific assets).</p> <p>D. May provide endogenous price forecast (utility and market) through market simulation.</p> <p>E. May capture dynamic response of suppliers and customers to changing market conditions.</p>	<p>A. Data and computationally intensive.</p> <p>B. Careful data preparation essential (e.g., danger of double-counting or not counting costs).</p> <p>C. May be difficult to understand (many assumptions and complex relationships).</p> <p>D. Agreeing on appropriate assumptions will be difficult.</p> <p>E. Response of market to restructuring may be difficult to predict.</p> <p>F. Reliance on forecast creates risks for utilities and ratepayers.</p>
2. Ex ante, top down	<p>A. Provides up-front estimate of transition costs.</p> <p>B. Includes all categories of assets and liabilities.</p> <p>C. Requires less data and simpler calculations (fewer assumptions and simpler relationships).</p> <p>D. Fewer assumptions to litigate.</p>	<p>A. Response of market to restructuring may be difficult to predict.</p> <p>B. Reliance on forecast creates risks for utilities and ratepayers.</p> <p>C. Aggregate analysis does not link transition costs to specific assets.</p> <p>D. Relies on exogenous price forecast (utility and market).</p>
3. Ex post, bottom up	<p>A. Includes all categories of assets and liabilities.</p> <p>B. Detailed analysis linking transition costs to specific assets (which reduces accounting concerns by linking transition costs to changes in book values of specific assets).</p> <p>C. Initial conditions known (restructuring proposal approved).</p> <p>D. Initial market response observed.</p>	<p>A. Does not provide up-front estimate of transition costs.</p> <p>B. Delays valuation until market maturity achieved (probable conflict with accounting practice).</p> <p>C. Developing market price indices may be difficult.</p>
4. Ex post, top down	<p>A. Includes all categories of assets and liabilities.</p> <p>B. Requires less data and simpler calculations (fewer assumptions and simpler relationships).</p> <p>C. Initial conditions known (restructuring proposal approved).</p>	<p>A. Aggregate analysis does not link transition costs to specific assets.</p> <p>B. Does not provide up-front estimate of transition costs.</p> <p>C. Delays valuation until market maturity achieved (probable conflict with accounting practice).</p>

	D. Initial market response observed	
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Source: Baxter, Lester W., Different Approaches to Estimating Transition Costs in the Electric-Utility Industry, Oak Ridge National Laboratory, October 1995, p22 (with minor modifications).

Table 2

**General Market Valuation Approaches
(Sale or Lease of Generation Assets)**

Approach	Strengths	Weaknesses
1. Ex ante, bottom up	<p>A. Provides up-front estimate of transition costs.</p> <p>B. Provides clear indicator of market price at time of sale.</p> <p>C. Provides clear changes in value of specific assets.</p> <p>D. May resolve market power concerns.</p>	<p>A. Regulatory and market uncertainty will affect market value.</p> <p>B. Does not address power-purchase contracts and regulatory assets.</p> <p>C. Assets contributing to transition costs are less marketable.</p> <p>D. Ownership of certain assets (hydro, nuclear) may be difficult to transfer.</p>
2. Ex ante, top down	<p>A. Provides up-front estimate of transition costs.</p> <p>B. Provides clear indicator of market price at time of sale.</p> <p>C. May resolve market power concerns.</p> <p>D. Possible to package less desirable assets with more desirable assets.</p>	<p>A. Regulatory and market uncertainty will affect market value.</p> <p>B. Does not address power-purchase contracts and regulatory assets.</p> <p>C. Assets contributing to transition costs are less marketable.</p> <p>D. Ownership of certain assets (hydro, nuclear) may be difficult to transfer.</p> <p>E. May not provide clear changes in value of specific assets.</p>
3. Ex post, bottom up	<p>A. Provides clear indicator of market price at time of sale.</p> <p>B. Provides clear changes in value of specific assets.</p> <p>C. May resolve market power concerns.</p> <p>D. Regulatory and market uncertainty reduced.</p>	<p>A. Does not address power-purchase contracts and regulatory assets.</p> <p>B. Assets contributing to transition costs are less marketable.</p> <p>C. Does not provide up-front estimate of transition costs.</p> <p>D. Delays valuation until market maturity achieved (probable conflict with accounting practice).</p> <p>E. Ownership of certain assets (hydro, nuclear) may be difficult to transfer.</p>
4. Ex post, top down	<p>A. Provides clear indicator of market price at time of sale.</p> <p>B. May resolve market power concerns.</p> <p>C. Possible to package less desirable assets with more desirable assets.</p> <p>D. Regulatory and market uncertainty reduced.</p>	<p>A. Does not address power-purchase contracts and regulatory assets.</p> <p>B. Assets contributing to transition costs are less marketable.</p> <p>C. May not provide clear changes in value of specific assets.</p> <p>D. Do not provide up-front estimate of transition costs.</p> <p>E. Ownership of certain assets (hydro, nuclear) may be difficult to transfer.</p>

Source: Baxter, Lester W., Different Approaches to Estimating Transition Costs in the Electric-Utility Industry, Oak Ridge National Laboratory, October 1995, p23 (with minor modifications).

Mitigation of Stranded Cost

If retail wheeling is implemented and a utility loses electric customers, it may have stranded cost associated with those departing customers. When an electric utility experiences departing customers which cause stranded cost, that utility should make reasonable efforts to mitigate the stranded cost associated with those departing customers. There is no universally accepted definition of mitigation in this context, but it should be viewed to include any action that a utility might take to reduce stranded cost.

A number of specific mitigation strategies are discussed below. Some of them pose no shifting of economic burden. For example, if a utility is able to sell the power it previously sold to a departing customer to a new customer at current rates, it should have no stranded cost. If it is able to sell this power at a lower price, but one which more than covers its variable cost of production, mitigation will be only partial. Thus, there should be no resulting negative impact on the other customers of the utility or its members or shareholders.

Other mitigation strategies may shift costs to other customers, members or shareholders of the utility. Thus, in developing a mitigation strategy, one has to make the initial determination about who should pay for the mitigation -- the departing customer, other ratepayers, shareholders or others.

In Wyoming there are investor-owned utilities, member-owned cooperatives and municipally-owned systems. The mitigation strategies discussed below will not necessarily work for all, simply because of the structural differences in utilities. Each utility will have to fashion a strategy which will work in its unique circumstances. Since some utilities may have undertaken cost reduction strategies before implementation of retail wheeling, the timing of these actions must also be taken into consideration.

Marketing Capacity and Energy -- The utility can mitigate stranded cost by marketing the capacity and energy of a departing customer to third parties. To the extent that it can be sold at a rate equal to or greater than that received from the departing customer, there would be no stranded cost.

Selling Assets -- To the extent that there is a market, the utility can sell generating or other assets which become surplus as a result of the loss of customers. Mitigation could be full or partial, depending on the price of the assets sold.

Reducing Operating Expenses -- A utility may be able to mitigate stranded cost by operating more efficiently and consequently reducing operating expenses. Reduced operating expenses may make the generation more competitive in the open market.

Accelerated Depreciation -- There is some discussion in the literature that regulated utilities should be allowed to increase rates, or hold rates constant, while reducing expenses and to use the excess revenues received to finance a more rapid depreciation of power plant investment.

Shifting Accumulated Depreciation -- For ratemaking purposes, a utility may be able to shift accumulated depreciation from transmission and distribution to generation.

Contract Renegotiation -- If a utility has existing power purchase agreements or fuel contracts, it could seek modification of those agreements in an effort to reduce costs in the event it lost customers.

Reduced Shareholder Dividends -- Dividends to shareholders of investor-owned utilities could be reduced and these resources used to fund mitigation efforts. This would shift the burden from the departing customer to the utility shareholder.

Modification of Cooperative Margins -- At the end of each year, a cooperative declares any revenue which it receives in excess of expenses as patronage capital and allocates it to its members based on patronage. These capital credits are then generally retired by the cooperative in accordance with established policy. While these capital credits must be paid at some point in time, certain savings may be achieved by the timing of the assignment or retirement. If margins are used to mitigate costs, it becomes a timing issue as opposed to a cost shifting issue.

Asset Write Down -- A utility could choose to write-off a portion of the book value of an asset which is above market value. This again would shift the burden of mitigation from the departing customer to the utility shareholder.

Recovery Opportunity

Arguments are being advanced in the national restructuring debate which support the full range of positions on recoverability of potentially stranded costs in some form of recovery mechanism. These positions cover a full spectrum of possibilities from full recovery of potentially stranded costs (100% recovery) to its opposite (zero % recovery). Support for fair sharing positions is also being advanced.

100% recovery is supported on the basis of the obligation to serve which utilities have traditionally borne. (The obligation to serve has been carried by

investor-owned utilities (IOUs) and member- and publicly-owned entities.) Since the utility is obligated to meet its customers' growing demands for power, it invested in generating facilities or contracted for purchased power to meet that obligation. These investments were made with the expectation of being allowed a reasonable opportunity (*not* a guarantee) to recover the costs of these assets -- debt service, return of and return on equity investments, and operating costs. Parties espousing this position believe it would be unfair and inequitable to frustrate these legitimate expectations as a result of changes imposed by governmental edict. In the case of the IOUs, Commission-granted prudence and used-and-useful findings further support this argument. This argument is, however, limited to *existing* resource costs. If restructuring were to result in the elimination of the obligation to serve, investments made after the obligation is lifted should be made with no expectation of stranded cost recovery.

Zero % recovery is supported by the contention that utility investors (both bondholders and IOU shareholders) knew or should have known when they made their investment that regulatory and industry restructuring were on the horizon and that, therefore, the rate of return they demanded or should have demanded provided appropriate compensation for the risk that restructuring would reduce electricity prices and, hence, preclude the utility from meeting its debt service obligations or returning the expected equity yields. Proponents of this position argue that above-market recovery would be an unjust rescue of the investors from that hard fact that a risk they knowingly took turned out unfavorably for them. An efficiency-based argument is also advanced that the regulatory compact does not assure reasonable opportunity to recover costs.

Fair sharing recognizes that 100% recovery could tend to inhibit the development of competition and prevent its benefits from flowing through to customers and acknowledged a degree of merit in the obligation-to-serve argument. It also recognizes that some of the costs carried by utilities have been incurred in response to governmental actions rather than simply at the volition of the utility and, thus, that such costs should be recoverable even if they are above market. These include PURPA QF purchase costs, DSM costs, deferred taxes and PBOPs (Pension Benefits Other than Pensions), among others. Fair sharing also recognizes that some of the decisions made by regulators or utilities may, in fact, have been questionable, and made only in anticipation of regulatorily-imposed recovery of high costs. These possibly should not be recoverable, but there has been no contention that any of the utility-owned assets of Wyoming entities fall into this category. To the extent that commissions require or allow some form of competition in the near term, some sharing of potentially stranded costs between the utilities and the customers may be required.

Stranded Cost Recovery Approaches

Regardless of the methodology used to define stranded costs, the period of determination must be established. Several approaches are possible:

Snapshot: this approach is used by the FERC in its Stranded Cost Rule. It makes a one-time comparison of the net present value of the expected revenue stream of the utility and the competitive market value of the stranded resources.

Annual: this approach would establish an annual calculation of the stranded cost (revenue). The calculation could utilize historical, current, or forecast data to establish the amount eligible for stranded cost recovery.

True-ups: this approach would use forecasts to set pricing and then make adjustments (true-ups) once actual stranded costs could be determined.

Until the market structure under retail wheeling is developed, it is unclear whether the stranded cost recovery payment will be paid to the incumbent utility by the ultimate customer or by the power marketer. It is possible that the power marketer would issue monthly bills to the ultimate customers, and the power marketers would be the only customers of the incumbent distribution utility. In addition, the magnitude of the stranded costs will affect the recovery period which could be as short as a one-time customer payment or multiple payments over ten years or more.

There are three principal approaches for recovering stranded costs, and each has certain strengths and weaknesses.

1. Exiting Customers Only: Levy a stranded cost recovery charge only against accounts of customers who elect to leave the regulated rates of the incumbent utility.
2. All Customers of the Utility: Attach a stranded cost recovery charge to *all* customers regardless of whether they receive generation service from a new power marketer or the incumbent utility.
3. All Wyoming Electric Customers: Attach a stranded cost recovery charge to *all* customers who would contribute *equally* per Kwh to the transition cost. An equal surcharge (tax) would be added to all electric bills throughout the state to establish a State-distributed fund from which utilities would be paid their reasonable, prudent and legitimate stranded costs.

Support for the idea that all customers should pay comes from a key FERC

principle that all open access transmission system users are subject to the same tariff and pricing provisions, including the transmission provider. This principle could be extended to retail wheeling. The approach includes the following concepts:

Stranded cost obligations were incurred for the benefit of all customers.

All customers will benefit from customer choice.

Power marketers will also benefit from customer choice through open-access transmission and distribution.

All system users (power marketers and the incumbent utility) will pay a charge to allow for stranded cost recovery. This charge would be in addition to the regular distribution wheeling charge.

The incumbent utility writes down its resources during the stranded cost recovery period.

From the start, all providers of power resources pay the same access charges *and* the incumbent utility is financially recognized for 100% of its legitimate, prudent, and verifiable stranded costs.

Several approaches are possible for designing charges to be used for stranded cost recovery:

Exit Fees: At the time a customer leaves the incumbent utility, it becomes obligated to pay the incumbent utility an amount equal to the net present value of the stranded costs.

Capacity Charges: The customer is obligated to pay a charge for stranded cost recovery based upon either capacity utilization or reservation.

Energy Charges: The customer is obligated to pay an amount for the energy scheduled (purchased). Since the majority of potential stranded costs are fixed (capacity related) in nature, energy charges could include a capacity-related allocation of responsibility to insure that all customers contribute to defraying stranded costs.

Market Access Charges: The customer is obligated to pay a periodic market or network access charge which may be standardized for like customer types.

Required Purchase: The customer is required to continue to buy at regulated rates a percentage of its capacity and energy requirements from a pool of resources made up of the generation and purchased power contracts that were stranded by the mandated electric industry restructuring.

Surcharge (Tax): Included in the customer's billing is an additional amount payable to the state for later distribution to the utility which has incurred stranded costs.

Much could be written regarding the details of the various stranded cost recovery approaches and their resulting positive and negative effects, but it is clear that the approach adopted needs to be fair to the incumbent utility and all stakeholders. The FERC provided insight, at page 600 of Order 888, into its thinking regarding its goals for a wholesale stranded cost recovery method:

(1) ensuring full recovery of legitimate, prudent and verifiable stranded costs; (2) requiring the utility to mitigate stranded costs; (3) providing certainty for departing generation customers; and (4) creating incentives for the parties to renegotiate their existing requirements contracts or otherwise settle stranded cost claims without resort to litigation.

FERC Order 888 (*The Stranded Cost Recovery Rule*)

In Order 888, the FERC specified the use of the revenues lost approach for determining the stranded cost of public utilities that lose generation customers as a result of the greatly enhanced opportunities to reach new suppliers provided by the new open access transmission service. The section of Order 888 addressing stranded costs totals 187 pages, including discussion of certain aspects relating to stranded costs, the various positions of commenters and the FERC conclusions. The focal point of this section is the FERC ruling that utilities which entered into contracts to make wholesale requirements sales under an entirely different regulatory regime should have an opportunity to recover 100% of stranded costs that occur as a result of customers leaving the utilities' generation systems through FERC jurisdiction open-access transmission. The FERC stated on page 455 of Order 888, "We believe that the recovery of legitimate, prudent and verifiable stranded costs is critical to the successful transition of the electric industry to a competitive, open access environment."

The FERC, in specifying an approach to be used for calculating recoverable stranded costs, ruled, Order 888 at page 596:

We find that the revenues lost approach is the fairest and most efficient way to balance the competing interests of those involved.

After careful consideration of the comments submitted, we have decided to adopt the following formula for calculating a departing generation customer's stranded cost obligation (SCO), on a present value basis, under a revenues lost approach:

$$\text{SCO} = (\text{RSE} - \text{CMVE}) \times \text{L}$$

where:

RSE = Revenue Stream Estimate

CMVE = Competitive Market Value Estimate

L = Length of Obligation (reasonable expectation period)

The formula is calculated as a snapshot, and the FERC provides insight into its thinking beginning on page 605.

The revenues lost approach is based upon a one-time snapshot. We favor this approach over the true-up approach because it creates certainty and will produce reasonably accurate results. True-ups, on the other hand, while theoretically more accurate, require periodic recalculation of stranded costs, which creates ongoing uncertainty and disputes. In addition, true-ups will result in additional transaction costs. We believe that an approach that provides certainty and establishes cost responsibility up front is best for what is fundamentally a transition issue.

Customers disagreeing with the results of the formula can elect to exercise a Marketing/Brokering Option whereby they obtain the rights to market the stranded generation for which they are paying the stranded cost recovery.

On page 554 of Order 888, the FERC specifically addresses the stranded cost recovery issue when retail wheeling causes the loss of generation customers:

We believe that both this Commission and the states have the legal authority to address stranded costs that result when retail customers obtain retail wheeling in order to reach a different generation supplier, and that utilities are entitled, from both a legal and a policy perspective, to an opportunity to recover all of their prudently incurred costs. This Commission's authority to address retail stranded costs is based on our jurisdiction over the rates, terms, and conditions of unbundled retail transmission in interstate commerce. The authority of state commissions to address retail stranded costs is based on their jurisdiction over local distribution facilities and the service of delivering electric energy to end users. However, because it is a state decision to permit or require the retail wheeling that causes retail stranded costs to occur, we will leave it to state regulatory authorities to deal with any stranded costs occasioned by retail wheeling. The only circumstance in which we will entertain requests to recover stranded costs caused by retail wheeling

is when the state regulatory authority ⁷⁶³ does not have authority under state law to address stranded costs when the retail wheeling is required.

The FERC is unable to draw a bright line that separates local distribution facilities from transmission, but instead provides indicators for state regulatory authorities to use on a case-by-case basis when defining their jurisdiction under a retail wheeling scenario.

In addressing wholesale stranded costs, the FERC has established a reasonable expectation test which basically assesses the utility's expectation of continuing to provide the wholesale requirements customer with electric service beyond the term of the purchase agreement. In addressing retail wheeling, the FERC anticipates that the reasonable expectation test will be easily met in those instances in which state law awards exclusive service territories and imposes a mandatory obligation to serve.

On page 626 of Order 888, the FERC stated, "The premise of this Rule is that, where a customer uses the new open access to obtain power from a new generation supplier, the customer must pay the costs that were incurred on its behalf under the prior regulatory regime. The FERC views the recovery of stranded costs (Transition Costs) as a critical transitional issue that is fundamental to the successful implementation of effective competitive wholesale generation markets. In order to provide certainty during the transition, the FERC has selected the Revenues Lost Approach using a snapshot period for determining utility stranded costs. The FERC believes utilities should have the opportunity to recover 100% of their legitimate, prudent and verifiable stranded costs. This is true when wholesale customers are lost through open access transmission, retail customers become wholesale (municipalization), or when retail wheeling is implemented without providing authority by state law for the recovery of stranded costs due to the implementation of retail wheeling.

A more complete summary of FERC's Order 888 Stranded Cost Rule, and the complete text of the stranded cost rule, beginning on page 443 of Order 888, are both available from the Commission. Please contact the Commission as noted on the bottom of the Table of Contents page of this White Paper.

Indirect Transition Costs

It is important to recognize that electric utility industry restructuring could have economic impacts which may be broader than the normal definition of stranded costs. Therefore, the Transition Cost Subcommittee recommends that these issues be addressed in separate studies of the economic impact on Wyoming to determine if electric industry restructuring in Wyoming should be undertaken.

One of the positive results of electric industry restructuring could be lower prices, particularly for customers in the higher rate regions of Wyoming and for the larger industrial customers, which may result in cost savings and higher profits for them. An improvement in business profitability may result in profits being reinvested in Wyoming, in retention or

expansion of existing businesses and jobs, and it may attract new businesses and investment -- all of which could have a positive impact on the state's economy.

The ad valorem property taxation of Wyoming electric utilities is based on a complex formula which includes utility physical plant, revenue and earnings/margins. Some argue that, if a utility customer stops purchasing power from a local utility and purchases power and services from another power supplier located in another state, the loss of revenue to the local utility and possible resulting decrease in value of the local utility's investment may result in a reduction of tax revenue to the State and Wyoming Counties. The effect on revenue-based taxes, such as franchise taxes and state and local sales taxes, may be similar. Proponents argue, on the other hand, that, under restructuring, customers may choose to purchase power from Wyoming-based resources rather than from out-of-state generators, which may increase the profitability of Wyoming businesses and actually enhance State tax revenues.

Another possible indirect result of allowing the revenues for power sales to go to out-of-state power suppliers, if that were in fact to result from restructuring, would be the economic loss of profits, jobs and tax payments within Wyoming. In a totally competitive electric industry environment, some believe that the size and influence of larger customers may eliminate or reduce the subsidies which may now be paid by large industrial consumers to residential, small commercial and agricultural consumers. Such large cost shifts among users, if they were to occur, may cause major economic dislocations throughout Wyoming. Geographic areas without large industrial loads may see inflationary increases in the cost of doing business and the cost of living, resulting in the loss of income, jobs, and local tax revenues, even if they may be offset by benefits in other geographic areas.

If economic impacts occur, whether positive or negative, the net multiplier effect may magnify those impacts throughout the economy of Wyoming. This is an area which should be a subject of the economic analysis being considered as the next step in studying electric restructuring in Wyoming.

The RELIABILITY, INTEGRITY and SAFETY SUBCOMMITTEE

OVERVIEW

The Reliability, Integrity and Safety Subcommittee found that more questions were raised than answers provided in trying to anticipate the future of electric industry restructuring. Further, there are no other precedents that this Subcommittee could comfortably use to predict with certainty a potential outcome. As a resource for our deliberations, we examined reliability, integrity and safety, as it related to a restructured industry, in all other states. Nonetheless, the Subcommittee reached a consensus on a number of issues and has therefore been able to address specifically several important concerns.

GENERAL

It is necessary to define what reliability, integrity and safety mean as those concepts apply to the conclusions of this Subcommittee. Safety is defined as relating to the safe operation, construction and general day to day workings of a utility. Reliability is regarded as the availability of electrical energy on a basis consistent with standards of the industry and the demands of the general public. Integrity is defined as the quality of the electrical energy being supplied, that is, the proximity of the voltage and current waveforms to perfect 60 Hertz waveforms in terms of synchronization? We note that the other related technical aspects of the electrical product being delivered, including harmonics, must also be considered.

Continued investment in a utility infrastructure is needed to maintain reliability and integrity. The quality of service to the end-use consumer also depends upon the reliability and integrity of the entire system -- not only the local distribution system but also the generation and transmission systems. In Wyoming, there is now a surplus of high quality, low cost generation capacity; but transmission facilities may not be in place to provide these generators with access the market (defined as distribution utilities or individual loads). Transmission facilities may also limit the delivery and sale of o y be competing.

The Subcommittee has defined distribution systems as those operating at voltages below 69 kv. Those operating at 69 kv and above are considered transmission. It appears that, if functional services were properly unbundled and given the opportunity to earn an adequate rate of return, the transmission facilities would not decrease in reliability and might even increase. The current level of cooperation on the transmission system among all providers of generation has produced service to Wyoming consumers which other states might envy. While transmission costs, in bundled form, may now vary from company to company, the actual operation of our transmission system today resembles that of an Independent System Operator (ISO) as we perceive the likely function of ISOs in the future.

The following conclusions and discussions represent a consensus of the Subcommittee. Included are rules and regulations which the group believes would be necessary for a restructuring of the electric industry from the perspective of reliability, integrity and safety. The group also identified some of the likely results of restructuring and some necessary changes in the current relationships among government, utilities and consumers.

1. Reliability and Service

Standards of reliability and service must apply to all utilities in Wyoming, and they must be set and enforced by a regional or state authority. The Subcommittee must emphasize the need for a state or regional authority and not a federal one. To be effective, it is critically important that the enforcing authority be aware of the needs of utilities and consumers in our state and region. No federal entity known to this Subcommittee would be sufficiently responsive to or aware of the needs and concerns of Wyoming. None appear likely to be timely in addressing them.

The generation, transmission and distribution sectors of the industry will each require a separate set of standards and, because of their nature, probably separate enforcement mechanisms. Likewise, each separate and distinct component of the energy product will require its set of standards. Enforcement of these standards can and should include incentives as well as disincentives as they apply to each component of the energy product.

While standards would need to be set by a technical committee representing the state or region, most of the required technical standards are already available within the industry and would not require much reinvention of the wheel. Examples of useful standards currently in place at nearly every utility are readily available.

2. Safety

As defined by the Subcommittee, safety will not be compromised. Application of current work rules under OSHA and confor to provide a safer working and operating environment to the consumer and the utility work force.

3. Reliability and Integrity

Among opponents of restructuring, there is a serious concern that the reliability and integrity of a distribution system may decline over time if the electric industry were to enter an era in which price is the predominant factor guiding the choices of nearly all consumers.

However, proponents of a restructured environment state, if current certificated service territories remain in place for the distribution function, the unbundled distribution cost of service can be accurately calculated with adequate provision for maintaining reliability and integrity. Some believe that only by maintaining a certificated area for distribution service can all consumer classes have a fair and equitable access to the generation and transmission marketplace -- which generally represents 70% of the consumers cost.

Furthermore, by maintaining the certificated area concept for the distribution function, all customer classes will have fair and equitable access to the market regardless whether they reside in rural or urban areas, which may be a significant concern in Wyoming.

The Subcommittee did not address concerns about cherry picking (the act of luring the biggest or best customers away from the traditional utility and into using an alternative source of supply) on a generation or transmission level. However, it is our consensus that, as it pertains to retail wheeling, cherry picking would not adversely affect any distribution system which retains its current certificated area if its retail wheeling distribution service rates adequately covered costs.

4. Wyoming rates

We recognize that rates in Wyoming, for many customer classes, are generally lower than those in almost every other state. Opponents of restructuring have raised a concern that the advent of retail wheeling may lower rates in other states and raise parts of the state may be affected differently). These opponents argue that large power customers, because of the attractiveness of their load, may be the least affected, while residential customers, rural or urban, would most likely see increased costs and therefore, higher rates.

Proponents of restructuring note that the rates in some locations of Wyoming are higher than elsewhere and in some cases, include the purchase of higher-cost power resources outside Wyoming. They argue that all classes of customers could be beneficiaries of electric competition and have access to Wyoming-based generation resources. In addition, large power customers contend that, even without restructuring, they will find ways to benefit from competition. Unless restructuring occurs, they contend, smaller customers will not have access to these same opportunities and the technological innovations which competition would otherwise bring.

Opponents of restructuring also contend that the reliability and integrity of distribution systems may be negatively affected by the undesirable economics of service to some consumer classes. These critics argue that, if a restructured and competitive electric industry results in distribution system engineering based solely on economics, the reliability and integrity of service to some customers may be diminished. Under traditional regulation, distribution planning which improved reliability and integrity, but which was not necessarily cost effective, was feasible because of the general acceptance of rate or class subsidies.

5. The level playing field

All utilities should participate on the same level playing field in a retail wheeling environment, including on issues related to safety, reliability and integrity. The Subcommittee generally believes that municipal electric utilities operating under home rule have certain distinct advantages over the rest of the distribution service providers in

Wyoming. If those home rule give either the normal Commission requirements that utilities be fit, willing and able to serve or the collection of franchise fees.

6. Quality of Service

It must be recognized, especially in a state like Wyoming in which the mineral industry is so important, that individual areas or particular loads may require a standard or quality of service in excess of (or different from) normal utility industry standards. Loads having those particular individual characteristics must bear the increased system costs required to achieve the higher standard. Regional or state authorities, such as the Commission, must be prepared to regulate appropriately and to make sure that utilities remain ready, willing and able to serve the requirements of all customers.

7. New loads

New loads or existing loads with substantially increased energy needs must be prepared to bear the additional costs and other requirements if their service causes a decrease in existing service quality, such as adding unacceptable voltage or flicker fluctuations.

CONCLUSIONS

The debate regarding restructuring the electric industry has some parallels in the telecommunications and natural gas utility industries; but opponents of restructuring argue that the electric industry has significant technological and other characteristics which are not found in other utility industries. Under their view, these differences will certainly affect reliability, integrity and safety. This Subcommittee has tried to identify, from the utilities and consumers perspectives, those areas which will not be affected as well as those areas that could be greatly affected by electric industry restructuring. In areas where concerns are evident, changes and safeguards have been proposed, again both for the provider and the consumer. In considering electric restructuring issues, lawmakers and policy makers must take reliability, integrity and safety issues into account and make sure that any actions they take will help to maintain high levels of reliability, integrity and safety.

The RATE UNBUNDLING SUBCOMMITTEE

Currently, most electric utility customers in Wyoming purchase electric power services as a bundled product. This means that all of the functional components of electric service (generation, transmission and distribution services) have been combined for simplicity and convenience. Some characterize this as a one-size-fits-all application for all customers in a particular rate class, regardless of the special needs or characteristics of the customers being served. Bundled rates are based on the fully-integrated aggregated costs of utility generating assets, purchased power resources and other ancillary services, along with system transmission and distribution costs. Until recently, charging customers under this bundled services pricing approach was considered to be economically efficient by utility regulatory commissions.

The Subcommittee found that it was necessary to define the term unbundling in the context of a restructured electric industry. According to The National Council on Competition and the Electric Industry, the term unbundling is defined as:

Disaggregating electric utility service into its basic components and offering each component separately for sale with separate rates for each component. For example, generation, transmission and distribution could be unbundled and offered as discrete services.

Unbundling rates is a necessary prerequisite in the transition to a competitive electric utility market in Wyoming.

The Subcommittee finds that unbundling of consumer electric rates is a necessary prerequisite for competition in the Wyoming retail electricity market. The Subcommittee believes that, if the decision is made to move to a competitive environment, it would be in the public interest for all electric utilities in Wyoming to unbundle their existing rates into a minimum of four components -- generation, transmission, distribution and retail services.

In order to promote electric industry restructuring or retail wheeling, all electric utilities in Wyoming would have to unbundle their existing rates and appropriately price each component of electric service. Unbundled rates will provide the customer with awareness of market options which may become available to them. In addition, it will allow customers to evaluate their consumption profiles today and well into the future if retail wheeling is implemented.

Unbundling rates will provide transparent price signals which convey additional information to customers so that they may make informed judgments and rational choices of future alternatives in a more competitive environment. Unbundled rates will become an integral part of customer awareness programs to identify distinct products and services which may be offered by the various electricity vendors in the market.

In an effort to help customers make informed decisions, regulators and utilities must identify and unbundle the cost of potentially competitive services. In a retail wheeling environment, services best provided under regulation might include only the traditional delivery services of transmission and distribution. These delivery services would still exhibit many of the characteristics of monopoly service and would require regulatory oversight. The generation function would be subject to the forces of competition and should be separated from monopoly services. These changes have been driven by technological and sociological changes affecting the industry and have led to increased customer awareness and desire for retail wheeling. These changes include the development of new generation technologies and information systems which may allow all customers over time to reap the benefits of lower costs and customized services.

In a restructured electric industry, services which can be provided efficiently by a competitive market should be separated from those services which are regulated as a monopoly. Under a restructuring scenario, regulation must provide the appropriate surrogate market power safeguards to protect consumers from cross-subsidies between products and from self-dealing by the remaining monopolies.

Even if there were no electric utility industry restructuring, unbundled rates would still be advantageous to customers because they provide customers with the necessary information, in various levels of detail, to make the economic choices regarding the use of electricity, other fuel sources, conservation and demand side-management. The proper identification of costs related to existing monopoly electric products will result in accurate price signals for comparison with future competitive opportunities.

Unbundling rates does not necessarily require electric utilities to restructure their businesses, to create distinct corporate entities for transmission and distribution of electricity. Rather, unbundling or disaggregating of rates means that the utility would provide its customers with more detail on its charges and choices for its services.

A time line for unbundling rates in Wyoming.

The Subcommittee generally suggests that the unbundling of Wyoming electric rates should be the first step in implementing any future retail wheeling or electric restructuring in Wyoming. In those cases in which customers do not venture out into a competitive arena, disaggregated service information could still help them to ascertain the appropriate time to consider entering the market when it becomes available.

Some members of the Subcommittee believe that customers should have the right to select their retail service provider concurrent with rate unbundling. Simply offering more defined and announced rates is not enough. The regulated delivery segments of transmission and distribution should be either functionally or structurally separated from the competitive business segments. Some states and countries have researched and analyzed this issue; and many have reached a common conclusion that competition can

succeed and should be exploited because it may lead to gains in both efficiency and customer satisfaction.

Some stakeholders believe that Wyoming should monitor events in other states prior to making any determinations about electric industry restructuring. Some stakeholders argue that Wyoming should not sit idly on the sidelines and allow other states, the federal government, and other countries to determine what is best for Wyoming. The Subcommittee generally agrees, however, that, if and when Wyoming allows retail competition, there should be increased scrutiny of cross subsidization and that codes of conduct should be established to prevent abuse of regulatory assets for customers who choose to pursue service from other providers.

Rate unbundling has been a major the country.

Other state regulatory commissions have concluded that the first step in reforming and restructuring the electric utility industry is to unbundle prices, separately stating rates for generation, transmission and distribution services. In a number of instances, commissions have required electric utilities to submit preliminary unbundled rate studies quickly, recognizing that over time, those studies will become more detailed.

Some state public utilities commissions have emphasized the importance of unbundling rates early-on in the transition to competition to give customers the necessary time to learn the new retail wheeling nomenclature. In some cases, electric rates have been unbundled without going to the next step of retail wheeling of generation supplies. After the appropriate period of time to assimilate electric marketing information, customers would then have the opportunity of entering the competitive market and making effective decisions regarding the many alternatives available in a competitive, retail wheeling environment.

The California Public Utilities Commission's December 20, 1995, and January 10, 1996, decisions on electric utility restructuring noted the importance of transparent, reliable price signals in the transition to competition:

Transparent, reliable price signals will be very important to foster a competitive market during the transition period because customers and suppliers will develop sophistication over time and alternative resources for price information will develop over time.

The Massachusetts Department of Public Utilities August 16, 1995, Order on Electric Utility Restructuring in D.P.U. 96-30 included unbundling as one of the five principles set forth to guide the . . . transition from a regulated to a competitive industry structure:

Rates for generation, transmission, distribution, and ancillary services should be

unbundled as soon as possible. This unbundling of rates is critical to provide both customers and competitors with the information they need to make decisions in a more competitive environment.

The Massachusetts Department of Public Utilities also noted:

. . . for customer choice to spur competition in a market, customers must be able to compare the prices and terms of the various products and services that are available, and services must be available on comparable terms to suppliers. This requires the identification of distinct products and services and the availability of clear and transparent prices. Thus, electric companies must separate the services and unbundle the rates for the services that they provide.

The Nevada Public Service Commission found that unbundling rates should not increase costs to the consumer and should add more service options for customer choice:

Some have argued against unbundling, on the grounds that (a) forcing customers to shop separately for various services will increase transaction costs and (b) forcing suppliers to provide these services separately will increase their production costs. The technical term for this issue is subadditivity. If performing all the present functions within one corporate entity is lower cost than having those functions performed by many different entities, the industry has what is called a subadditive cost function.

The Subcommittee does not believe there is a risk of higher costs provided that we apply the rule of flexibility. Requiring utilities to offer services on an unbundled basis does not mean that suppliers, including the utility, may not offer services in a bundle. It means only that the customer has the flexibility to shop for services separately, if the customer wants to do so. The result is that all customers and suppliers, including the utility, are free to find the most efficient methods of bundling. Whoever offers the most attractive packages, in terms of price and quality, will win the customers.

Commonly asked questions concerning rate unbundling.

Should utilities be required to functionally unbundle generation, transmission and distribution services? If the ultimate decision is to move to retail wheeling, unbundling of consumer electric rates and services is a necessary prerequisite for competition in the Wyoming retail electricity market. The term functionally unbundle has more to do with the structure of the utility itself, and whether it performs generation, transmission and distribution activities. The Subcommittee does not feel at this time that consideration should be given to the structure of the utility. It is believed that FERC Order 888 contains safeguards to protect the wholesale customers which should be implemented to test the efficacy of those safeguards. However, if and when a decision is reached to go forward

with the transition into a retail wheeling program in Wyoming, it will be necessary to question what the appropriate structure of the distribution industry should be. The response to this question will create many other questions which will have to be effectively dealt with. A few examples may include barriers to market entry, code of conduct issues, the establishment of a level playing field for all participants and the territorial obligation to serve.

Should there be a fully competitive generation market not subject to rate regulation and should generation be regulated from the standpoint of safety, reliability and market power? Yes. In order to provide retail wheeling of electricity, there must be a fully competitive generation market accessible by retail customers. Without it, customers interests can only be served through regulated, vertically integrated providers. The intent of the FERC in Orders 888 and 889 is to insure that a competitive wholesale generation market can develop by requiring public utilities to provide comparable wholesale access to their transmission systems. Some consider thl wheeling at the state level. However, others believe that much of the anticipated customer benefit of retail wheeling relates to access to competitive generation resources, which will be achieved by FERC's recent orders. Additionally, some Subcommittee members believe that serious consideration should be given to the treatment of contractual agreements and obligations that were entered into in good faith under the current regulatory environment.

A key consideration in deciding whether a fully competitive generation market will effectively serve customers needs is how well that market meets existing and future standards for safety, reliability and market power. The obligation to serve will be dramatically transformed, while electric customers expectations for safety will continue to call for high standards. Subcommittee members believe the Commission should insure that generators compete on equal terms and on a level playing field.

What level of refinement and disaggregation should distribution rates take? If retail wheeling proceeds in Wyoming, it would require that all utilities unbundle their rates to a point where, at a minimum, four components are identified on the customer s electric bill. These components are:

1. Wholesale power or generation costs
2. Transmission wheeling
3. Distribution wheeling
4. Retail services

The Subcommittee believes that one objective in any rate unbundling process should be to create a customer billing process over time which emphasizes easily understood pricing information and conveys the points listed above. This information would provide signals which convey additional information to customers so that informed judgments and decisions regarding future alternatives could be made in a more

competitive environment. Ultimately the customer will determine how far the unbundling of utility service rates must go. Under a retail wheeling program, some customers may want a bill that identifies only the total cost of service, while other customers may want a bill which identifies commodity cost (generation cost), power factor penalty charges and the costs of any other ancillary services such as load management and others. To the extent that this additional disaggregation is expensive or difficult to provide, the costs and benefits will have to be weighed. Each utility will have different levels of refinement and sophistication in how they develop and operate their billing programs.

The Subcommittee believes that charges for electrical services should continue to be determined using cost-based allocation methods. Historically, cost of service studies have been used to set bundled rate tariffs for all utilities in Wyoming. In order to preserve rate continuity, the transition to unbundled rates should begin with a cost-of-service based rate methodology approved by the Commission.

The Commission should recognize that cost-of service studies in any future competitive environment may not by themselves be the ultimate tool for setting rates. The Commission should consider the development of a flexible methodology which accounts for each component of service. The market may ultimately drive the products offered and the prices for those products. Therefore, future cost methodologies should be flexible enough to appropriately reflect costs of the competitive market place.

Refining and disaggregating future distribution service rates will be necessary for various distribution customer services. The customer will either be the existing end-use customer or the power marketer who has aggregated end-user loads. Potential pricing categories include:

1. Customer charges
2. Distribution capacity charges
3. Distribution energy charges
4. Provisions for distribution energy losses
5. Distribution ancillary services
6. Cost/benefit-based line extension practices
7. Traneading, billing, collection, and equipment ownership (meters and transformers). Billing based upon a capacity reservation is most consistent with the FERC transmission pricing and would fit well with the power marketers expected use of the distribution system. Energy based charges have worked well with existing metering and they are familiar to customers. However, energy based charges may not provide recovery of the appropriate class cost unless they include some recognition of capacity costs as well.

Utility line extension practices have the potential for becoming much more stringent if retail wheeling is implemented. This is due to the fact that the average pricing used to set distribution rates in many cases will not cover the incremental distribution costs

necessary to serve new customers. Historically, commissions have required certain levels of subsidies for new line extensions; and, therefore, utilities have developed their rates accordingly. Today, many utilities are able to offer larger line extension allowances because of the margins provided by bundled rates. In response to the lower margins that may be provided by retail competition, the Commission will need to consider revising its minimum facilities requirements for the line extension policies of electric utilities in Wyoming.

When vertically integrated rates are unbundled and actual costs for specific services are identified, lower use customers in particular may experience rate shock through the customer charge, the capacity reservation charge and through payments required to be made by new customers to receive service. This may result because subsidization also occurs through rate design. The functional cost identification of generation, transmission and distribution categories will permit various rate design options and allow utilities to better address these subsidy issues.

Currently, each utility has its own specifically designed computerized billing system. Some systems may nong rates without substantial and costly modifications. Utilities that bill their customers using postcard type bills will likely be required to move to more costly statement and envelope type billings.

What is the proper balance between distribution rate unbundling and administrative simplicity? Service requirements and billing information for each customer class or even within classes will probably be different. The customer charge (access charge) will likely be different for different customer types. The differences will be dependent upon the level of sophistication not only of the customer but also of the individual utility. The appropriate level of administrative simplicity is the level at which the customer receives fair and reasonable regulated distribution rates and has access to competitive distribution services.

What ancillary services might become available and how should they be priced? FERC Order 888 has defined ancillary services for the wholesale open access market, and those service definitions could be carried over into the retail market. Ancillary services beyond those defined in FERC Order 888 would be at the distribution level and must be essential to the fundamental level of distribution service provided to the customer.

The basic level of service could be regulated; but, beyond that, any additional services which the utility may provide should not be required to be regulated, except by the competitive market. Distribution level ancillary services which are integrated with the basic level of service should only be considered ancillary, and should be separately priced if they are meaningful to the customer and could physically be provided by another entity. Not all retail customers may be interested in separate ancillary services, but some large retail customers may be.

How should rate subsidies be dealt with and over what time frame? Regulatory agencies across the country have generally been concieries should be eliminated during a transition period to a competitive environment while utilities are still regulated in order to prepare customers for what lies ahead. Historically, embedded class cost of service studies have been used in Wyoming to determine class revenue requirements.

Rate subsidies can occur between classes as well as within classes. Movement to a competitive environment should be accomplished over a period of time to reduce rate shock for currently subsidized classes of customers. During the transition period, utilities and regulators will be faced with making adjustments in the manner in which they function, set policy and develop rates. All stakeholders should work together to determine the time necessary to consider and resolve rate shock issues. This transition period should include customer awareness and educational activities, and should take into account the fact that the customers most often subsidized are the smaller residential customers.

Should distribution utilities be required to establish retail wheeling tariffs? If electric restructuring and retail wheeling are to be pursued in Wyoming, it will be necessary for each utility to establish and offer retail wheeling rates to all parties on an equivalent basis. Doing so will promote equal competition among the parties and give everyone access to information regarding wheeling costs.

The Subcommittee believes that the principles of comparability and reciprocity established in FERC Order 888 should be an important part of the terms and conditions in any retail wheeling tariff. Further, the Subcommittee anticipates that retail distribution rates and transmission rates will approximate their cost of providing these services. The costs for providing ancillary services may also be included in wheeling rates.

How will services be priced and regulated for the distribution company and the power marketer (service provider)? The distribution company will continue to be regulated by the Commission. However, the pricing may be cost-based or include performance based considerations. The market will determine the services and rates offered by power marketers, aggregators and service providers.

Should unbundled distribution rates continue to be offered to customers who choose to remain with the locally certificated utility and should unbundled rates be offered to those customers who choose to leave the local certificated utility? Electric rates will have to be unbundled for customers who are interested in taking service from a supplier other than the incumbent utility. The local utility will be responsible for providing wheeling over distribution facilities at a rate approved by the Commission.

Customers who choose to continue to take service from the locally certificated electric utility may wish to take service under a bundled rate, similar to what is currently available to them under traditional regulation. Some Subcommittee members believe that it should be the right of each power marketer, including the incumbent utility, to establish

services and pricing for the customers it hopes to attract. Billing information standards should be no different for the incumbent distribution utility than they are for power marketers and other service providers.

How should a transition to unbundled pricing be structured? A necessary first step in the transition from a regulated to a more competitive electric utility industry is to unbundle or disaggregate electric service prices and separately state rates for generation, transmission and distribution services. Unbundling rates provides a transparent price signal which will convey additional information to customers and enable them to make informed judgments and rational choices on energy alternatives in a more competitive environment. The customer may find the regulated average cost during a transition period to be misleading. Careful consideration must be given to the issue still vertically integrated. Unbundling rates during a transition period should be made a part of customer awareness programs.

In preparing for an unbundled rate environment, the following tasks should be performed:

1. Identify functions, products or service categories to be unbundled.
2. Analyze and allocate common and other costs to the regulated distribution services.
3. Identify essential competitive distribution services.
4. Determine the cross-over point between state and federal jurisdiction.
5. Identify unbundled cost components and non-price terms and conditions on utility tariffs.
6. Determine a transition plan which recognizes the impact upon customer rates of eliminating or reducing cross-class subsidies which may be required by market pricing.
7. Allow time for competitive providers to offer various services.
8. Develop a customer awareness program to be implemented by regulatory and government agencies. Future power marketers and incumbent utilities should be free to establish their own approaches to meeting their responsibilities to provide for adequate levels of customer awareness.

The structure of unbundled rates during the transition to a more competitive electric utility industry should evolve in a manner consistent with the dynamics of the changing marketplace. Unbundled pricing could be introduced during the transition period

to provide transitional price signals at a time when customers have no access to alternative resources; or it could be introduced gradually, depending on the principles guiding the transition and the principles supporting the implementation of retail electric competition. Introduction could also be delayed until the time retail wheeling is actually implemented.

Although the concept of unbundling rates in any transition to competition is fairly well agreed upon, various stakeholders have different viewpoints about the timing of the unbundling process and the degree to which rates should be unbundled. Examples of the three views are:

- A. Wyoming utilities should immediately begin efforts to unbundle existing rates into the four minimum components discussed above (generation, transmission, distribution, and retail services). By developing unbundled electric rates that reflect the cost of various electric service components, the market will be the best mechanism to determine if selected competition is economically viable.

Some will argue that, as services are disaggregated, it will become increasingly necessary to modify the remaining regulated service rate designs. Cross-subsidies and other social goals will, they believe, become increasingly obvious and more difficult to maintain. Since these services will remain regulated and largely under the jurisdiction of Commission, these are decisions that can be deferred until after the generation and retail service provision segments are restructured.

While these are important issues that deserve the attention of all stakeholders, they should not be a roadblock to the development of a more competitive industry in general. It is likely that, even if there is no change in the Wyoming industry, these issues will become just as obvious when others around us move to a more competitive system. Clearly, these issues can be addressed today or in the future through the regulatory process that will continue after selected segments of the industry become competitive.

- B. Wyoming should monitor and study activities in other states before developing a retail wheeling and rate unbundling program. After this, Wyoming may choose not to go forward with retail wheeling and thereby eliminate the need to unbundle rates.
- C. In order for customers to make informed evaluations and judgments on electric power consumption decisions in future competitive electric markets, adequate information must be available for their review and analysis. A customer awareness program should start well in advance of any movement to a retail wheeling environment. Some

states which have initiated retail wheeling programs have also implemented customer awareness programs which could be used as models for similar programs in Wyoming.