

TRANSMISSION

ISSUES

MONOGRAPH

Number 5

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**The Case Against
Retail Wheeling**

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**A Response To
Advocates Of
Retail Wheeling**

EDISON ELECTRIC INSTITUTE
July 1992

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FOREWORD

This is the fifth in a series of technical monographs being produced by the Transmission Access Technical Task Force of Edison Electric Institute. The Transmission Issues Monographs deal with regulatory, legal, pricing, planning and operating issues related to access and use of electric utilities' transmission systems. The prior titles in this series are: "Pricing of Transmission Services in Bulk Power Markets: Factors for Consideration," "Engineering and Reliability Effects of Increased Wheeling and Transmission Access," "Customer Wheeling: A Fiction, Contrary to the Public Interest," and "A Proposal for the Appropriate Pricing of Firm Transmission Services."

This current Monograph -- "The Case Against Retail Wheeling: A Response to Advocates of Retail Wheeling," was prepared by the Staff of Edison Electric Institute with the assistance of Joe D. Pace and William W. Lindsay of Putnam, Hayes & Bartlett, Inc.

Questions or comments with regard to this Monograph are welcomed and should be directed to the Power Supply Policy Division at Edison Electric Institute. Additional copies of this Monograph or the earlier ones are available from the EEI Order and Billing Department.

I. INTRODUCTION AND OVERVIEW

Recent developments at the Federal Energy Regulatory Commission (FERC) and in the Congress have served to focus attention on mandatory wheeling of electricity as a means of fostering competition in the electric power industry. In addition, remand of the FERC's decision in the PacifiCorp merger case¹ has exacerbated concerns in various sectors of the industry with respect to the potential for mandatory retail wheeling.

While the great majority of industry analysts and policymakers in the United States have come out squarely against retail wheeling in the electric utility industry, various industrial customer groups have continued to advocate retail wheeling. Among these is the Ad Hoc Committee for a Competitive Electric Supply System (ACCESS).² A recent monograph sponsored by ACCESS³, advocating retail wheeling, represents its latest effort to support such a program. While the ACCESS report claims to have addressed and rebutted the arguments against retail wheeling, in fact, a careful examination of the report reveals that it adds little or nothing to the debate regarding mandatory wheeling in the electric utility industry. Before describing the deficiencies of the ACCESS report, however, it is necessary to define wheeling in general and retail wheeling in particular and to outline the basis for the widespread concerns about mandatory retail wheeling.

¹ *Environmental Action v. FERC*, D.C. Circuit Nos. 89-1333, 89-1338 and 89-1343, August 2, 1991.

² ACCESS is primarily an organization of industrial firms that use substantial amounts of electricity. As indicated by its name and its acronym, its principal purpose is to advocate retail wheeling of electricity.

³ Jay B. Kennedy and Richard A. Baudino, "Retail Wheeling: Expanding Competition in the Electric Utility Industry," April, 1991 (Access report).

Retail Wheeling

"Wheeling" can be defined broadly as "the use of the transmission facilities of one system to transmit power of and for another entity or entities."⁴ If the third party is an end-user of electricity, the transaction is called "retail wheeling." However, a more precise definition that conveys what happens in a wheeling transaction would be:⁵

Wheeling is the use of the electric power system of one utility for the simultaneous receipt at one point, and delivery at another, of power, in like quantities and possessing like characteristics, of and for another utility or utilities.

Under this definition, wheeling of all-requirements service to retail customers could only be provided under a telemetering arrangement.⁶ This allows the load of the customer to be counted as part of the control area load of the third party supplier rather than the utility to which the customer is directly connected. There is some doubt, however, concerning existing computer capabilities to handle reliably more than a limited number of such arrangements. If the control computer or telemetry fails, or if for some reason the off-system supplier cannot make the power available, the burden necessarily falls on the host utility because the customer is electrically within its control area. Further, the cost of telemetering can be quite substantial, and except in the case of large loads, could more than offset any savings from the lower rates of an off-system supplier. In any event, while there are a few examples of telemetered wheeling

⁴ Kevin Kelly, J. Steven Henderson, Peter Nagler and Mark Eifert, Some Economic Principles for Pricing Wheeled Power, National Regulatory Research Institute, August 1987, p. 270.

⁵ Malcolm Y. Marshall, "Customer Wheeling": A Fiction, Contrary to the Public Interest. Edison Electric Institute, Transmission Issues Monograph Number 3, April, 1989, p. 2.

⁶ Whether the host utility is, in addition, providing a back-up service depends in part on the specific arrangement between the host utility and the wheeling customer.

to wholesale requirements loads, telemetered wheeling to retail customers is, to our knowledge, virtually nonexistent.

If telemetering were employed for a retail customer, it would, in many cases, be best viewed as simply an accounting transaction. This can be seen most readily where the third-party utility operates within the control area of the host utility, or where the host utility and the third-party utility are directly interconnected members of the same centrally dispatched power pool. The "retail wheeling" customer receives the same service as before; the same generators generate the same power which is transmitted over the same facilities. The only difference is that the transaction would now be accounted for as a sale to the retail customer by the third-party utility rather than a sale by the host utility. Nothing changes except the flow of payments. This is why retail wheeling (and requirements customer wheeling also) has been called "wheeling money" rather than wheeling power.

The circumstances are little different if the two interconnected utilities are not centrally dispatched so long as they have an economy energy agreement (now almost universal for interconnected utilities). If the economy energy arrangement is working properly, the generation that serves the loads of the two (or more) utilities will not be changed materially by telemetered retail wheeling. Again, the customer gets the same service from the same generation over the same transmission facilities. Again, only the accounting is different; again, only money is wheeled. The accounting funnels any benefits from the transaction to the (one or more) retail wheeling customers, as opposed to spreading the benefits of lower costs among all customers as would normally occur when the utility purchases power. Thus, retail wheeling as proposed by ACCESS simply amounts to giving certain customers special advantages. Such wheeling

is not necessarily pro-competitive -- it simply reallocates costs from one group of customers to another in a manner that has little or nothing to do with efficiency.

Additional Concerns Raised by Mandatory Retail Wheeling

Many industry observers and representatives have additional concerns about proposals for mandatory wheeling to retail customers. Among these concerns are: (1) the inconsistency of mandatory retail wheeling with the utility's obligation to serve, (2) possible harm to remaining customers of utilities that lose substantial load to other utilities from inability to obtain adequate compensation for stranded investment, (3) problems of cost allocation between core and competitive businesses and (4) potential degradation of service reliability. These concerns are of critical importance to the electric utility industry due to the need for long term planning, long construction lead times and the capital intensiveness of the industry.

Under the traditional regulatory compact, utilities have obtained the franchise to serve all customers within their designated service areas. In exchange for this, utilities are obligated to provide power and energy to all those seeking service within their service areas at rates designed to produce no more than a fair return on the investment devoted to the public service. Mandatory retail wheeling would degrade the value of the franchise without diminishing the obligation to serve all those seeking service, possibly including those that have opted to receive service from a third party and subsequently wish to return to the franchised utility.⁷

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Unless shopping customers effectively give up the right to return to the regulated system, there is no assurance that their advocacy of retail wheeling reflects anything more than gaming or rent-seeking behavior, as opposed to a genuine desire to rely on competition.

Loss of load as a result of mandatory retail wheeling is likely to "strand investment" of the host utility in those facilities installed in anticipation of servicing the loads of the departing customers. Stated another way, the utility's revenue requirements (apart from fuel and other variable costs) will remain unchanged, but must now be recovered from fewer kW's of load. Consequently, rates to remaining customers must be increased if the utility is to avoid degradation of its rate of return. Increased rates to remaining customers only increases their incentive to seek service from third parties to the further detriment of the host utility and its remaining customers.

Mandatory retail wheeling would likely result in a division of end-users of electricity into those served at regulated rates and those served under rates determined more or less competitively. Among the regulatory problems created by utilities trying to operate simultaneously in both regulated and unregulated markets is cost allocation. Regulated rates can be held down by allocating disproportionate costs to the unregulated business of the utility where prices are determined by the market. Regulators may find themselves under considerable pressure to contain regulated rates in this way. Indeed, it may be possible for regulators to control earnings in the competitive sector through rate regulation of the regulated sector. This would mean that returns in the unregulated sector could be less than necessary to compensate for the additional risk.⁸

Finally, the utility industry is justifiably concerned that mandatory retail wheeling, if it were to take place on a truly large scale, may degrade service reliability. There is no assurance that extensive expansion of existing telemetering, together with the

⁸ Conversely, the utility may have incentives to attempt to allocate disproportionate costs to the regulated business in order to allow it to lower its competitively set prices and still recover total costs.

computer capability and software systems necessary to accommodate widespread retail wheeling, is possible without potential adverse effects on reliability. Further, regulation of the industry in the context of conflicting priorities for use of constrained facilities may lead to efforts to micro-manage transmission planning and operation. Unless technology and regulatory expertise in such matters is raised far above its present levels, such efforts risk significant degradation of reliable system operation.

The ACCESS Report

The vision of retail wheeling expressed in the ACCESS report is summarized as follows:⁹

This concept involves allowing retail customers to negotiate power purchase agreements with producers other than the local utility company. The utility would then be obliged to transport this power to the retail customer. Although many different customers could benefit from such an arrangement, larger electric consumers - energy intensive industries, universities or hospitals for example - would probably be the most likely candidates for initial implementation.

The authors of the ACCESS report argue that retail wheeling will not only benefit customers directly taking part in such a program but will yield lower rates for all customers as a result of increased competition. Specific benefits claimed for retail wheeling include increased pressure on utilities to control costs, a closer match between demand and generating capacity, a more optimal mix of generating fuels, a regulatory benchmark for performance comparisons and lower rates for all customers.¹⁰ While advocacy of retail wheeling by ACCESS is certainly not unexpected, this paper is

⁹ Access report, op. cit., p. 3.

¹⁰ Ibid., p. 22.

noteworthy in its assertion that the analysis it presents shows that the utility industry's arguments against retail wheeling are "fatally flawed."¹¹ In particular, the authors claim that the industry's concerns about obligation to serve have little foundation, that stranded investment concerns are misplaced, and that reliability and technical concerns present no serious barrier to retail wheeling. A careful review of the ACCESS report, however, reveals that it adds very little to the pre-existing debate. It also suffers from a number of deficiencies, including the following.

First, and perhaps most telling, is the authors' failure to set forth the details of their retail wheeling proposal with sufficient clarity to allow its impacts to be assessed. For example, nowhere do they indicate what customers would be eligible for retail wheeling in their "competitive scenario;" what regulatory controls, if any, would remain over the rates and contract provisions applicable to competitive customers; whether individual customers would have the choice of opting in or out of the competitive sector and, if so, whether they could return to the regulatory fold in the future if they initially opted out; or what continuing obligations utilities would have to plan for and provide service to customers with competitive options. Beyond this, the ACCESS report shows no appreciation for the very difficult regulatory problems likely to be presented by a retail wheeling regime, including the need to establish complex partial requirements rates, to separate utility costs between core and competitive sector businesses, and to establish and monitor reasonable price and non-price terms and conditions in open access transmission tariffs that ensure that departing customers pay the full costs and face the full risks of their decisions. The authors sweep all such crucial details and complexities aside by counting upon gradualism and comprehensive regulatory oversight

¹¹ Ibid., p. 5.

of the transition process to solve problems as they emerge and to minimize bad outcomes.

Second, the analysis of the benefits claimed for retail wheeling in the ACCESS report consists primarily of general, unsupported presumptions in favor of competition. While a general presumption in favor of competition may not be unwarranted, what the ACCESS report fails to do is focus on the existing competitive forces in the industry (in particular, competitive bulk power markets and the rapidly growing availability of supplier or wholesale wheeling) and show that any added pressures resulting from retail wheeling would produce gains justifying its costs. Indeed, the report constantly intermingles and confuses wholesale and retail wheeling arguments.

Finally, the bold assertion of the ACCESS report that the industry's concerns regarding retail wheeling have been demonstrated to be "fatally flawed" is not backed up by the analysis presented. Instead, the authors rely upon a series of half- or non-truths about utility/industrial customer relationships (e.g., utilities are already "highly insulated" from the risk of losing large customers¹²), conceptually incorrect analyses (e.g., that if some risk of customers leaving the system already exists, there is no cost to increasing the risk of customer loss), and regulatory wisdom during the transition process to waive away, not refute, the concerns that have been raised regarding retail wheeling.

¹² Ibid., p. 36.

II. THE ACCESS REPORT AVOIDS DISCUSSING MANY OF THE COMPLEXITIES AND POTENTIAL COSTS OF RETAIL WHEELING BY FAILING TO PROVIDE DETAILS REGARDING THEIR PROPOSAL

The ACCESS report studiously avoids setting forth the details of its retail wheeling proposal with sufficient clarity to allow its impacts to be assessed. For example, the report seems to be proposing a division of the retail electric utility business into three sectors: (1) customers that are eligible for retail wheeling and elect to obtain service from a third party supplier, (2) customers that are eligible for retail wheeling but elect to continue to receive service from their host utility and (3) customers that are ineligible for wheeling service. While the authors refer to their proposal as a "competitive scenario," the extent to which service and rates to customers in the competitive category would continue to be regulated (and on what cost basis) is left unclear. The report makes only cryptic references to prices in a competitive regime leading to better decisions and to the fact that economic theory (although not necessarily regulatory policy) dictates that market prices approximate marginal costs.¹³ But the only guidance offered on the continuing role for regulation is that:

State regulatory supervision is necessary to prevent discrimination against potential wheeling customers, as well as to set the rules for entering, leaving and re-entering the utility system . . . In an industry characterized by greater opportunities for competition there is a need for more dynamic regulatory supervision.¹⁴

Whether the "dynamic regulatory supervision" favored by the authors of the ACCESS report would give utilities substantial flexibility (upward and downward) to determine prices charged in the "competitive scenario" sector is unclear. Presumably

¹³ Ibid., pp. 25-26.

¹⁴ Ibid., p. 41.

the authors would favor allowing the host utility to offer lower prices to industrials for which off-system supply is a viable option and permitting a utility seeking to compete for industrial business off-system to offer lower rates to obtain such business.¹⁵ But would utilities in the ACCESS world be permitted to require long-term contracts and notice provisions or charge rates above traditional embedded cost-based levels to category 1 or 2 customers without running afoul of anti-discrimination provisions if and when competitive markets tightened up? Suppose a utility (A) charges 50 mills/kWh to a class of industrial customers. Customer (C) finds that while other neighboring utilities are charging 55 mills or more, power is available from utility B at 43 mills. C obtains wheeling service from A at 3 mills and switches to B at a saving of 4 mills. Three years later, B's rate rises to 51 mills while A's rate and the rates of all neighboring utilities remain unchanged. C's cheapest alternative is now A's 50 mill rate since the total cost of obtaining power from B is now 54 mills (51 mills plus 3 mills for wheeling). C then opts to return to A, but A offers a price of 52 mills -- a competitive price at least two mills cheaper than any other options available to C. The question is whether in the ACCESS world, this price would be deemed to be discriminatory, since other industrial customers of A would be paying only 50 mills?

It can reasonably be argued that prices charged to retail customers that opt for service in the competitive sector should not be regulated at all. Indeed, one can argue that deregulation of prices should not be limited to customers that opt for retail wheeling service; rather, it should extend to all customers that are eligible for such service since the host utility cannot charge those customers a price above prevailing

¹⁵ Many state commissions now permit utilities to charge lower prices to industrials for which self-generation is a viable option. Some also allow lower "economic development rates" to attract new business.

market levels. In short, the ordinary presumption would be that where workable competition exists, there is no further need for regulation. If the authors would rely on anti-discrimination and re-entry rules to argue against higher market-determined rates, then they are merely advocating a "heads the large industrial customer wins, tails all other parties lose" scenario.

Another key lack of detail in the ACCESS proposal concerns the criteria for eligibility for wheeling service. The authors never state what customers would be or should be eligible for this service. It is clear only that they envisage "limited implementation of retail wheeling"¹⁶ and count upon the likelihood that utilities and regulatory bodies will establish rules regarding service eligibility to assure a smooth transition.¹⁷

A third example of lack of clarity in the ACCESS proposal relates to a utility's obligation to serve customers that have switched to a third party supplier and subsequently decide to return to the host utility for service. The authors argue at length that existing utility industrial tariffs make it clear that utilities do not now have an unqualified obligation to serve new loads. Whatever may be the limits in existing service obligations, the authors studiously avoid taking a position on the key "prodigal son" issue -- that is, will utilities have the same obligation to serve returning competitive sector customers as they do to serve any new retail load imposed on the system or

¹⁶ Ibid., p. 36. Indeed, this is one of the principal bases for their conclusion that the industry's claims regarding stranded investment are exaggerated.

¹⁷ Ibid., p. 45. Presumably, "limited implementation" is to be taken to mean "limited to customers above a certain size that want to receive wheeling service." But it will be difficult to control the demand for retail wheeling simply by a size limitation. Establishment of any given size level may result either (1) in excessive demand for wheeling service with the potential for severe financial damage to the wheeling utility, or (2) in the arbitrary exclusion of customers that could be benefitted by the service and for which wheeling service could be managed without undue financial strain on the utility.

will they have a lesser (or no) obligation to serve returning customers.¹⁸ The only comfort offered in the ACCESS report is that:

Utilities with sufficient capacity will, if wise, be happy to see substantial blocks of demand return to their system. Where that is not the case, state regulators are there to resolve the question if need be.¹⁹

There is no doubt that state regulators will be there, but the question is what principles will and should guide their regulation. On this question, as on many important questions relating to retail wheeling, the report is silent.

Finally, the ACCESS report fails to address a host of practical implication "details" that are crucial to consider in judging whether the costs of retail wheeling would exceed likely benefits. For example, if new customers can opt in or out of the regulatory system, what defines a "new" customer? If a local customer contracts for service from another utility and then is bought out by another company, is this a "new" customer having the right to select regulated rate service? Is new load at an existing site a new customer or an expansion of an old customer? Are all affiliated entities (say state government agencies) allowed to combine their loads and purchase from another utility as a single customer?

Beyond details, however, setting up a retail wheeling system would present many complex issues which will be costly and time consuming to address. The ACCESS analysis does not consider any of these problems. First, it is important to recognize that industrial customers are likely to contend that they must be afforded regulatory

¹⁸ It is reasonable to suppose that any effort by a utility to deny service to a returning customer that would lead to plant closure would be unacceptable politically and to regulators as well. Thus a utility will need to plan for and meet the load of such customers after a particular tariff or contract expires.

¹⁹ Ibid., p. 34.

protection unless the markets in which they can shop are workably competitive. Defining markets and assessing their competitiveness (both initially and at future points if industrial customers become dissatisfied with the market) will tend to be a time consuming and contentious matter.

Second, retail wheeling is likely to raise difficult issues regarding the host utility's obligation to supply partial requirements service to competitive customers and the basis for pricing any residual services provided. The discussion in the ACCESS report never considers whether retail customers would be allowed to obtain a portion of their electricity requirements off-system and demand that the local utility supply the remaining standby, load following or supplementary power services at regulated rates. A related question is whether the host utility would be obligated to meet switching customers' residual demands if arrangements made for off-system supplies prove inadequate. If customers are given the option of procuring competitively any portion of their requirements that they see fit and demanding that the remaining residual requirements be furnished by the local utility at regulated rates, the regulators' rate setting task will be almost impossibly complex. No matter how carefully regulated partial requirements rates are designed, customers with competitive alternatives will be able to exploit niches in the system faster than the utility and its regulators can adjust the regulated rates. Requiring customers to commit to particular competitive or regulated services on a long-term basis can mitigate but not eliminate this problem as long as individual customers are permitted to make a variety of competitive arrangements and demand that the host utility meet their varied remaining requirements (possibly including back-up service) at regulated rates.

Third, in a retail wheeling world, regulators will have to make contentious and important cost allocations between utility core and competitive businesses. They will be subject to conflicting pressures in doing this and if cost allocations are handled poorly, the presumed efficiencies of competitive markets will have no chance to emerge. The inescapable fact is that regulatory agencies will have an enormous influence on competitive markets based upon how they develop core customer rates. If the regulator allocates costs to core customers using traditional embedded cost allocation principles, it will effectively set an average cost-based floor under the competitive rates. That is, the utility will have to get market prices at least equal to average embedded cost levels in order to cover the costs allocated by the regulator to that business. Other obvious alternatives would be for the regulator to set core customer rates based upon total utility costs minus the estimated marginal cost of competitive service or based upon total utility costs minus the revenue derived from competitive service. The former approach would entail the regulatory agency, not the market, determining the relevant marginal cost; the latter approach would deprive utilities of the profits (and shelter them from the consequences) of their competitive market activities.

Last but certainly not least, the mandatory open access scenario advocated by ACCESS would greatly exacerbate the transmission pricing and access problems that are only now coming to the fore. Open access transmission service tariffs generally require the establishment of priorities for considering wheeling requests, the basis for determining the adequacy of existing capacity to wheel or assessing the need for system upgrades, and a specification of what happens if needed upgrades cannot be constructed in a reasonable time. Moreover, it is necessary to determine if rates are

to be based only on embedded costs or whether they will recognize opportunity costs and the costs of required system upgrades.

There can be no excuse for advancing a retail wheeling proposal, along with the claim that it meets all previous objections to such proposals, without specifying clearly and in advance the necessary details that would allow the authors' claims to be substantiated or refuted. It should not be supposed that the vagueness of the K/B proposal stems from an inability to be more specific. Rather, one must suspect that minimizing criticism of their proposal depends upon limiting it to generalities and being fuzzy about key details so that other parties cannot clearly assess how they would be affected.

III. THE BENEFITS CLAIMED FOR RETAIL WHEELING ARE UNSUPPORTED

The authors of the ACCESS report claim that retail wheeling will benefit the utility industry and its customers in the following ways: (1) it will pressure utilities to control costs; (2) it will result in a closer match between demand and generating capacity; (3) it will yield a more optimal mix of generating fuels; (4) it will provide regulators with a benchmark for performance comparisons; and (5) it will produce lower rates for all customers. The paragraphs below address each of these claims. It is important to note initially, however, that the discussion in the report of retail wheeling benefits is extremely cryptic and conclusory – the "Retail Wheeling Benefits" section accounts for only four pages out of a total of 51 pages.

The authors of the ACCESS report argue specifically that a better supply/demand match will result because retail wheeling will enable customers to buy from utilities with the lowest incremental costs and correspondingly permit utilities with cost advantages to expand output.²³ These simple assertions regarding the efficiency benefits of retail wheeling give no recognition to the inevitable problems associated with a mixed competitive/regulated environment. Whether retail wheeling would have any realistic potential for shifting loads toward the lowest cost producers would depend on whether and how competitive sector rates would be set. If they continued to be regulated, retail wheeling would tend to cause the market to be supplied by producers with the lowest embedded costs, not the lowest incremental costs.²⁴ Therefore, it would be quite possible for an industrial customer to switch to an off-system supplier even though the incremental cost of the off-system supplier is higher than the incremental cost of the host utility.²⁵ Even if state commissions do not directly regulate the rates charged to competitive-sector industrial customers, however, there is no assurance that the market would be supplied by the lowest cost producers. As discussed earlier, regulatory commissions still must allocate total utility costs between core and competitive businesses and how they do this may either set inefficient (embedded cost-based) competitive price floors or mute utility incentives to compete (by offsetting competitive revenues against total utility costs).

23 Ibid.

24 It is more likely that commissions would permit utilities to cut rates to take load from neighboring systems. The result would be downward pressure on industrial rates with concomitant shifting of revenue requirements to captive customers.

25 This is particularly true where the off-system supplier is located in a different state with different environmental requirements, or a different tax structure or where the off-system supplier has tax and capital cost advantages stemming from its different form of ownership.

2. Matching Capacity and Demand

According to the ACCESS report, retail wheeling will result in a closer match between demand and generating capacity. The authors put the argument as follows:²⁰

It is not hard to recognize that where wheeling is available the imbalances in capacity between utilities can be corrected. If each utility is an island, the impact of excess capacity is likely to fall directly on the customers of that utility.

The ACCESS position seems to ignore the wholesale market in which utilities with excess capacity can sell to utilities with tighter reserve margins. Capacity transactions designed to accomplish just this are legion. In fact, no utility is an "island" whose retail customers must bear the burden of excess capacity when neighboring utilities have a need for capacity.²¹ Utilities have economic as well as regulatory incentives to sell excess capacity. The existence of utilities with excess capacity is not evidence of the lack of efficient wholesale markets.²² Existing excesses can be corrected by retail wheeling only if such wheeling significantly increases the aggregate demand for electricity or somehow makes it feasible to transmit power economically over longer distances. The ACCESS report provides no showing that either prospect is likely. If not, then retail wheeling will simply permit those with excess capacity to sell to customers connected to other systems thereby creating excess capacity problems for systems that may have been more successful in planning capacity sufficient to match loads.

²⁰ Ibid., p. 29.

²¹ Existing wholesale bulk power markets are quite robust already and utilities currently take full advantage of such opportunities to the benefit of all their customers rather than the limited few that would be benefitted in a retail wheeling scenario. The ACCESS report does not explain how retail wheeling would accomplish more than existing wholesale bulk power markets in solving "excess capacity" problems.

²² Nor is it evidence of improper planning. Planning risks are impossible to avoid because some changes are impossible to predict.

The authors of the ACCESS report argue specifically that a better supply/demand match will result because retail wheeling will enable customers to buy from utilities with the lowest incremental costs and correspondingly permit utilities with cost advantages to expand output.²³ These simple assertions regarding the efficiency benefits of retail wheeling give no recognition to the inevitable problems associated with a mixed competitive/regulated environment. Whether retail wheeling would have any realistic potential for shifting loads toward the lowest cost producers would depend on whether and how competitive sector rates would be set. If they continued to be regulated, retail wheeling would tend to cause the market to be supplied by producers with the lowest embedded costs, not the lowest incremental costs.²⁴ Therefore, it would be quite possible for an industrial customer to switch to an off-system supplier even though the incremental cost of the off-system supplier is higher than the incremental cost of the host utility.²⁵ Even if state commissions do not directly regulate the rates charged to competitive-sector industrial customers, however, there is no assurance that the market would be supplied by the lowest cost producers. As discussed earlier, regulatory commissions still must allocate total utility costs between core and competitive businesses and how they do this may either set inefficient (embedded cost-based) competitive price floors or mute utility incentives to compete (by offsetting competitive revenues against total utility costs).

²³ Ibid.

²⁴ It is more likely that commissions would permit utilities to cut rates to take load from neighboring systems. The result would be downward pressure on industrial rates with concomitant shifting of revenue requirements to captive customers.

²⁵ This is particularly true where the off-system supplier is located in a different state with different environmental requirements, or a different tax structure or where the off-system supplier has tax and capital cost advantages stemming from its different form of ownership.

The notion that retail wheeling will permit utilities with cost advantages to expand output is especially dubious. First, the fact that a utility has a cost advantage at a given point in time does not mean that it can expand output by increasing its bulk power resources at less cost than its neighbor. For example, the utility may meet a substantial portion of its load with low cost hydro, but have no opportunity for additional hydro investment. Alternatively, it may be that the neighboring utility has higher costs because it recently installed a nuclear unit, but the next planned addition is a low-cost pumped storage plant that will give it the cost advantage. The point is that existing embedded cost and incremental cost relationships may be substantially altered by additional generation and transmission resources. Second, the authors make no effort to relate their argument to the existing wholesale market. A utility with cost advantages is currently in a position to exploit those advantages in the wholesale market. Excess firm or unit capacity can be sold for long, intermediate or short terms so long as prices do not exceed the higher of fully distributed embedded costs or the cost of the unit supplying the service.²⁶ Energy can be sold under a variety of arrangements, the most common of which is economy energy sold at split savings rates. Competition among rival wholesale suppliers in many parts of the country is quite intense in the absence of mandatory wholesale wheeling.

A pervasive problem with the efficiency-based arguments in the ACCESS report is that they ignore the existence of wholesale markets. To the extent that the authors' implicit assumption is that those markets are inefficient, they offer no explanation of why

²⁶ In a few instances utilities have obtained approval for sales of capacity (as well as energy) at market-based rates.

retail wheeling would yield gains over and above those achievable with much less disruptive supplier wheeling.

3. More Optimal Fuel Mix

Retail wheeling, according to the ACCESS report, will cause utilities to strive for more optimal combinations of generating units by fuel type.²⁷

Not all utilities have the same mix of generating fuels. Over time the ebb and flow of fuel prices renders some fuels more economic than others. Under a monopoly scenario with fuel clause adjustments, the incentive to adjust the mix or to purchase from other suppliers is blunted. The uneconomic mix can continue over the life of existing plants with no penalty to the utility. Obviously, retail wheeling will increase the options for customers burdened with this type of inefficiency and create an incentive for the serving utility to optimize the fuel mix for the benefit of its customers.

As in the discussion of demand/capacity matching, the report ignores the wholesale market. When the report notes the ebb and flow of fuel prices over time, however, it is describing one of the principal reasons for bulk power transactions. Such transactions, for example, allow mid-western coal to displace oil-fired generation in eastern Pennsylvania, New Jersey and Maryland. Differences in fuel prices also are the principal reason for large scale purchases of coal-fired energy by Florida utilities from utilities in Georgia and Alabama. They are also the principal reason for large scale purchases of Pacific Northwest hydro energy by utilities in California, and Canadian hydro energy by utilities in New England. Transmission facilities used for these transactions are often fully loaded because of the large volumes of energy that are

²⁷ Ibid., p. 29.

moved in response to fuel price differences. The ACCESS report provides no evidence of any significant potential for retail wheeling to further narrow such differences.

It must also be emphasized that efficient bulk power supply planning requires that utilities strive to minimize total costs over the long run. This has historically meant construction of large scale facilities requiring long lead times to complete. As fuel cost relationships change over time, generation with a particular fuel may attain a short-run advantage over other types of generation. If the ground rules were changed so that customers could switch suppliers to take advantage of short-run changes of this sort, however, efficient planning designed to minimize costs over the long run may be discouraged. In any event, the short-run effect will surely be transfer of benefits from existing customers and stockholders of the host utility to the relatively few large industrials able to take advantage of temporary rate disparities.

4. Regulatory Benchmarks

The ACCESS report argues that the ability of retail customers to buy power and energy off-system should be of value to regulators because regulators will be presented with an objective benchmark for evaluation of performance. According to the report: "This is quite different from simply comparing the rates of two regulated utilities." Now to be compared, we are told, are rates obtained by customers with choices among suppliers; rates said to be "clear indications of the price of electricity in largely unregulated markets."²⁸ Presumably, lower rates under these circumstances can be taken as a mark of good performance, while higher rates would be a mark of poor performance. But this is clearly not an objective measure of performance when

²⁸ Ibid., p. 28.

regulation of the core business of the participants may have significant impacts on the prices that can be charged to off-system buyers even if these prices are unregulated. It is also not an objective measure of performance where the fixed costs (and to a significant extent the variable costs) of the utility are determined primarily by geographic circumstances and by decisions taken over the history of the utility, rather than by decisions of the current management. Certainly it is not an objective measure of comparative performance where competitors include public and cooperative systems with tax advantages, different capital costs, and preference in obtaining publicly generated power. Finally, it must be recognized that out-of-state sellers as well as non-utility sellers may enjoy advantages over a host utility that are totally outside the latter's control. For example, the host utility may be subject to different environmental requirements than a non-utility or a utility in another state. State and local tax treatments may also differ between states and localities as well as between utilities and non-utilities. In light of these circumstances, relative prices cannot be expected to serve as accurate benchmarks of relative performance. Indeed, they raise serious questions concerning the ability of competition at the retail level in this industry to lead to efficient results.

5. Lower Rates For All Customers

The ACCESS report takes issue with the charge that retail wheeling will only provide lower rates to those customers who can take advantage of the opportunity, forcing other customers to pay higher rates. Their view is that their "competitive scenario" will create pressures to control costs and thus hold down rates to all customers. This conclusion must rest not only on the belief that retail wheeling will add cost control pressures and

lead to significant cuts in net costs without adverse effects on product quality, but also on the belief that the benefits of any such efficiencies will not be captured predominately by large industrial customers. But no reason for this belief is provided in the report. Rather the argument rests upon faith that retail wheeling will produce benefits in excess of costs and faith that regulation will protect core customers from rate increases.²⁹

The electric power industry is highly capital intensive. Variable costs account for less than a third of the total cost of electric service. Thus if a utility loses a load as a result of customer switching to a new supplier, more than two-thirds of the cost of providing service to that load remains fixed and must either be recovered from other ratepayers or absorbed in lower returns to stockholders. Any additional efficiencies that could conceivably result from the competition at the retail level advocated by ACCESS would be overwhelmed by the net revenue losses that many utilities could experience.

IV. THE ACCESS ANALYSIS DOES NOT DEMONSTRATE THAT THE ARGUMENTS AGAINST RETAIL WHEELING ARE FATALLY FLAWED

Utilities have offered a variety of arguments in the past against mandatory retail wheeling. Among those arguments, the authors of the ACCESS report select the following and seek to respond to them:

- (1) Retail wheeling is likely to leave some utilities with stranded investment that they must either absorb or recover through higher rates to remaining customers. If utilities are required to wheel for retail customers, they

²⁹ "Whether or not rates to remaining or core customers increase depends on the regulatory decision." Ibid., p. 30.

should be compensated for stranded investment by those customers; otherwise rates to remaining customers will have to be increased.

- (2) Mandatory retail wheeling is inconsistent with utilities' obligation to serve under the traditional regulatory compact. In addition to stranding investment, retail wheeling will inject uncertainty into the planning process which may result in additional costs and/or capacity shortages in the future. Utilities should not have an obligation to serve switching customers who at some point wish to return to the host utility.
- (3) Mandatory retail wheeling can exacerbate the problems of assuring adequate, reliable service to customers.

The paragraphs below review the ACCESS analysis and demonstrate that the points made are either unsupported, incorrect or, in some cases, simply not relevant.

1. Stranded Investment

The ACCESS report makes several arguments with respect to the utilities' stranded investment concern. It is argued that stranded investment is not really a problem because: (a) utilities are insulated by adequately long take-or-pay and notice provisions in existing contracts; (b) many industrials are served under interruptible rates and, therefore, the host utility is not holding capacity to meet their loads in any event; (c) if a dollar of one utility's investment is stranded, a dollar of some other utility's investment is "unstranded"; and (d) the risk of industrial load loss as a result of retail wheeling is not significantly different from the risk utilities now face because of customer bankruptcy, relocation to more favorable sites or use of alternatives such as cogeneration. The authors also imply that the stranded investment problem must be

overstated since utilities have not quantified the investment that might be stranded by retail wheeling. Finally, the authors argue that, in any event, remaining customers may not pay higher rates because rates are regulated and can only be increased after hearing.

a. Contract Provisions

Assertions in the ACCESS report regarding the take or pay contractual protections against stranded investment now enjoyed by electric utilities are completely unfounded. The authors of the report do not even attempt to cite evidence for their conclusion on this point. Spot checks of a few industrial tariffs indicate that such protection is quite limited. For example, Duke Power's contract period provision in its industrial service schedule is as follows:

Each customer shall enter into a contract to purchase electricity from the Company for a minimum original term of one (1) year, and from year to year upon the condition that either party can terminate the contract at the end of the original term, or at any time thereafter giving at least sixty (60) days' previous notice of such termination in writing; but the Company may require a contract for a longer original term of years where the requirement is justified by the circumstances.

Other examples of limited protection include Wisconsin Electric Power Company (Wisconsin Electric) and Central Maine Power Company (Central Maine). In Wisconsin Electric contracts with large customers served at primary voltage, service is year-to-year with a one year notice period after an initial term that varies from one year to five years. Similarly, the form of contract for Large Customer Non-Interruptible Service of Central Maine provides that after an initial term of five years, the term continues "from

year to year unless or until terminated by either party by giving written notice of its intent to the other party at least thirty days prior to the date of termination."

The fact that utilities may not have sought long-term take or pay contract provisions in the past, particularly in the face of substantial regulator and customer resistance to such provisions, is hardly surprising since utilities have not faced the risk of customer loss due to retail wheeling. To advocate changing the regulatory system toward greater risk of load loss and, at the same time, argue that contracts negotiated in a lower risk environment should be adequate to protect utilities is disingenuous. Utilities require long lead times to plan, design, obtain requisite approvals and licenses, construct and test large generation and transmission facilities. In forecasting loads far into the future as a basis for formulation of efficient bulk power supply expansion plans, they cannot assume that customers will terminate service when contracts expire even if they were legally permitted to do so. A utility must continue to plan facilities adequate to serve all such loads at least until a customer gives a legally binding notice of termination. Indeed, unless and until industrial service agreements contain notice periods long enough to permit utilities to adjust supply plans at a reasonable cost, the utility will face a potential stranded investment problem whenever it loses an industrial customer.

b. Interruptible Rates

The authors of the ACCESS report argue that loss of customers served under interruptible rates could not cause stranded investment:³⁰

³⁰ Ibid. p. 38.

Many industrial customers have been offered interruptible rates in exchange for their willingness to get off the utility system at times of system peak. The rates were offered and/or obtained when circumstances of the customer and the utility warranted. Obviously, an interruptible customer does not impose firm capacity requirements on the local utility since the utility would not plan or build capacity for these customers. Clearly then, if an interruptible customer bypassed his local utility there should be no stranded investment as a result.

Initially, two obvious points should be noted: (1) the authors do not attempt to quantify the portion of total industrial load served on interruptible rates and (2) they do not limit their retail wheeling proposal to such customers. Beyond this, the basic ACCESS argument on this point, as with many others, is far too simplistic. Whether the loss of an interruptible load strands investment and shifts significant costs to other customers depends upon the level and design of the interruptible tariff. If the tariff yields revenue to the utility in excess of the marginal cost of providing the interruptible service, then loss of the customer will lead to a shifting of costs to the remaining customers. Moreover, the authors fail to recognize the fact that interruptible load generally reduces only the need for peaking capacity that could otherwise serve as operating reserve during system emergencies; efficiently supplying interruptible loads still requires utility investment in baseload units.³¹ Thus, while the loss of interruptible load may not strand investment in operating reserve capacity, it may strand much more capital-intensive baseload investment.

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If an industrial customer is willing to accept, say 200 hours of interruptions per year, this may well allow the utility to avoid installing peaking capacity to meet that load. But the cost of meeting the industrial customer's load during the remaining 8560 hours of the year will be minimized only by employing base load and intermediate units.

c. Unstranding Investment

The argument of the ACCESS report regarding the equivalence of stranded and unstranded investment is especially disingenuous. If utility A gains load by serving an industrial customer previously served by that customer's host utility, it gains a load for which it did not plan. The additional load is in the nature of a windfall. The investment in plant used to serve the new customer is not "unstranded" unless utility A had previously lost load to a third utility. Further, if the source of the replacement power is new generation, for example a new IPP, it is clear that this is not "unstranded investment." In any event, it is small comfort to a utility that has lost one or more large industrial loads to learn that a neighboring competitor is better off as a result.

d. Risk of Loss

The authors of the ACCESS report argue that stranded investment is not a new or worse problem because the risk of loss stemming from retail wheeling is not much different than the risk of loss because of customer bankruptcy, relocation of customers to more favorable sites or use of alternatives such as cogeneration. According to the report:³²

Once these customers have fulfilled their responsibilities under the contract and have satisfied a reasonable notice provision, they no longer bear any responsibility to the utility company for payment for electric service. However, once the customer departs, the utility company does not send these customers a bill for the investment they left "stranded." The fact of the matter is the payments received over the contract period and the associated notice requirements have fairly compensated the utility for its investment in serving these customers. The utility, as a matter of course, bears the risk that these customers' loads may leave the system.

³² Ibid., p. 35.

In short, the argument comes down to the proposition that if a firm is already bearing some risks of a particular type of loss occurring, there is no reason to be concerned about adding to the risk that such losses will occur. Given this reasoning, the life insurance company should be unconcerned if its policyholders all take up sky diving since it already is insuring their lives anyway and the fire insurance company should not care if policyholders rent rooms to convicted pyromaniacs.

Clearly, the risk to a utility of customer loss due to bankruptcy, relocation and self-generation (at least in today's environment) pales by comparison to the risk of customer loss in a retail wheeling scenario. Unless and until utilities are permitted to protect themselves with contract provisions suitable to a competitive environment, utilities would be subject to relatively quick and major shifts of load to neighboring systems within economic transmission distance. A utility that has based prior construction on long-run economics and has recently installed or completed large base-load plants could have relatively high embedded costs when compared with lower cost neighbors (with excess capacity) and thus could face severe load losses. Further, such losses would have the effect of reducing the loads over which the fixed costs of the host utility can be spread, leading to a need for higher rates which would only further exacerbate the rate disparity. Risks of quick progressive losses of this sort are not comparable to the risk of customer losses stemming from individual bankruptcies or relocations or even self-generation.

The ACCESS report goes on to state that the industry's argument in this regard "really amounts to a double standard, one which treats switching customers in an arbitrary and punitive fashion as compared to other customers who might leave the

system.³³ The authors' basic assumption that it is arbitrary and punitive to impose higher costs or different contract terms on customers who impose more risk on the system is wrong. Competitive markets compensate suppliers for bearing risk and/or lead to the evolution of contracts to manage risks.³⁴

e. Evidence

A further response by the authors of the report to the stranded investment argument is that the utilities have provided no evidence of the amount of stranded investment that might occur as a result of retail wheeling.³⁵ The implication is that the amount of such stranded investment must be quite small (so small that utilities are fearful of quantifying it). Quantification of the stranded investment likely to be suffered by any individual utility or a group of utilities would require extensive analysis based on a fully specified scenario (what customers could shop, what rate regulation would remain, what contract terms would be allowed, what service obligations would remain, etc.). It is disingenuous for the authors to advance another ill-defined retail wheeling proposal and infer that stranded investment problems are small because they have not been quantified. It can also be argued that the magnitude of the value of potential stranded investment to the utility may vastly outweigh the savings of the customer at the margin. Clearly, the amount of investment likely to be stranded is a function of the amount of load likely to shift. If the latter were expected to be trivial, it is difficult to understand

³³ Ibid., p. 40.

³⁴ In a purely competitive market, the price will tend to equal the marginal cost of the marginal supplier including the costs of shifting risks to those most willing and able to bear them (such as insurance premiums) and the cost of capital which reflects the residual risk inherent in the business.

³⁵ Ibid., p. 34.

the clamor on the part of industrials for the right to obtain retail wheeling. The authors might respond that it is not loss of load that is anticipated, but rate reductions to customers threatening to exercise wheeling rights in order to avoid the load loss. This, however, is simply another way to strand investment. In either case, the utility's inability to earn a full rate of return on investment employed to serve industrial customers forces it to seek higher rates from other customers or accept a lower rate of return on its investment.

f. Rates to Remaining Customers

The ACCESS report seeks to minimize the problem of shifting costs to remaining customers:³⁶

Rates are only changed after hearings before regulatory bodies. Whether or not rates to remaining or core customers increase depends on the regulatory decision. Where the evidence points to utility inefficiency, the impact may be to simply lower returns to stockholders. Even more likely is that the cost pressure on utilities from retail wheeling will squeeze the excess revenue from the system and permit lower rates to all customers.

As the last few years' experience has made painfully obvious, utility rates now reflect regulatory agency judgments regarding claimed inefficiencies or imprudence on the part of utilities. Loss of industrial load (without recovery of stranded investment) or rate cuts to retain load will produce revenues insufficient to recover the embedded costs associated with the existing plant. Therefore, rate increases to remaining customers will be necessary if total costs are to be recovered. While proposed rate increases may cause state commissions to examine costs more closely, lower returns to stockholders

³⁶ Ibid., p. 30.

based on inefficiency or imprudence not found previously should not be anticipated. In the absence of such findings, state commissions will be left with no alternative but to permit rate increases to remaining customers.

2. Obligation to Serve

Proposals to mandate retail wheeling inevitably raise the obligation-to-serve problem. As seen by utilities, this issue has several dimensions: (1) that allowing shopping violates the existing regulatory compact (consisting of a utility obligation to serve presumably matched by a reciprocal customer obligation to take service) and thus inappropriately imposes stranded investment costs on captive customers and/or utility stockholders; (2) that breaking the traditional regulatory contract will inject substantial uncertainty into the planning process, therefore raising costs and possibly creating capacity shortages in the future; (3) that, in any event, in order to make economically rational decisions, both the utility and the potential switching customer must know what obligation the utility has to supply the remaining requirements of customers who seek to obtain only a portion of their needs through shopping and how any regulated partial requirements rate will be set; (4) that rational decisionmaking also requires that the utility and the potential switching customer know in advance whether the local utility will have any obligation to serve returning customers in the future;³⁷ and (5) that if any obligation to take switching customers back in the future at standard rates is imposed on the local utility, this will discriminate against captive customers and may further disrupt planning.

³⁷ As used throughout this paper, the term "obligation to serve" means specifically the obligation to supply the capacity and energy requirements of customers within a utility's geographic service area, including the obligation to provide future power supply service. We distinguish this from the obligation that may be imposed on the utility to meet the customer's need for transmission service to enable it to shop for electricity from other utilities.

The authors of the ACCESS report respond in two ways to utility arguments regarding obligation to serve. First they note that electric utilities do not now have an unqualified obligation to serve all comers. According to the report: "If a new customer is large enough, the utility has the authority to impose conditions of service, such as lengthy contract service periods, liquidated damage provisions, take-or-pay obligation, special rates, demand ratchets, and so on."³⁸ The evidence provided by the report in support of this contention consists of two examples: (1) Consumers Power Company's "Unusual Facility Requirement" rule under which it reserves the right to make special contractual arrangements with respect to necessary facilities, minimum bills and other service conditions under certain circumstances for customers with loads above 1000 KW, and (2) the Industrial Power Service Tariff of Public Service Company of New Mexico which provides that for customers of 10,000 KW or more, it may limit a contract extension when it anticipates a shortage of generation or transmission capacity during the period requested by the customer.³⁹

The ACCESS report provides no information as to how widespread these kinds of provisions may be or how they in fact are interpreted by state commissions. In any event, the inference seems to be that since utilities do not now have an unconditional obligation to serve, they are not likely to be forced to serve returning customers at embedded cost-based rates. The report further minimizes the obligation to serve problem by relying upon "regulatory oversight" to deal with this issue. This does nothing, however, to respond to the legitimate utility concern that political pressures will create a *de facto* obligation to serve returning customers without adequate compensation,

³⁸ Ibid., p. 33.

³⁹ It should be noted that limiting a contract extension is not equivalent to refusing to serve a load.

thus exacerbating planning problems and subsidizing switching behavior at the expense of utility stockholders and core customers.

A second response of the ACCESS report to utility arguments regarding the obligation to serve returning customers is that this should not cause any significant disruption of utility planning:⁴⁰

. . . on any utility system an important responsibility of the manager is to forecast energy and demand for periods as much as twenty years into the future. Sophisticated econometric models are usually utilized to make the forecasts. As part of the forecast methodology the utility usually surveys its customers to get data on plant closings, plant expansions, cutbacks and myriad other facets of electricity demand. Certainly utilities will have knowledge well in advance of any potential load switches. Normally utilities are planning and building capacity at some rate. Changes in load forecasts occur for many reasons; retail wheeling will be only another reason and one that can be easily anticipated well before the event should occur.

The authors' argument here is of the same character as their argument regarding the risk of load losses. Their position is that since the planning process already has to deal with many uncertainties, adding one more significant source of uncertainty should not be a cause of concern. As previously demonstrated, this is a fundamentally incorrect argument. Moreover, the authors' view that "certainly utilities will have knowledge well in advance of any potential load switches" is naive. While host utilities would have some knowledge of potential load switches in that they would know which of their existing contracts (but not which of their neighbors' contracts) with industrial customers were expiring, it is not true that retail wheeling induced load shifts could be easily anticipated and accommodated in planning decisions. The likelihood of customers switching suppliers when they are able contractually to do so would depend on a

⁴⁰ Ibid., p. 37.

myriad of factors, some of which have already been mentioned. An industrial customer may be within economic transmission distance of a number of utilities directly interconnected with the host utility and many more once-removed utilities.

The likelihood of a switch will depend in part on the generation capacity availability and cost conditions for this fairly large number of utilities, as well as on transmission rates and availabilities for the host utility and other utilities in the market. It will also depend on expectations regarding the regulatory policies of the relevant state commissions regarding limitations on rate flexibility and treatment of revenues derived from the competitive sector as well as expected regulatory policies regarding stranded investment and rights to return to the host utility at embedded cost or on some other basis.⁴¹ In all cases, what will count will be the industrial customers' forecast of market and regulatory conditions for periods relevant to their circumstance. (A customer with an old or obsolete plant may have a much shorter time horizon than one who has just constructed a new plant.) Consequently, the extent of retail wheeling and associated loss of load can be difficult to anticipate sufficiently well in advance to avoid exacerbating utility planning problems. One also cannot overlook the fact that the operation of an electric system is such that a customer will continue to be supplied

⁴¹ Suppose customer C served by utility A is considering a switch to utility B and that both A and B are regulated by the same PUC. B offers C a rate lower than the rate C is paying A and lower than the rate B is offering to other comparable customers. The PUC's policy allows B to charge such a rate if B's other customers can be shown to be better off as a result. This, however, is a function of B's load growth and the number and size of other switching customers that it may be acquiring from A and from other interconnected utilities. C is necessarily uncertain concerning the ability of B to obtain PUC approval of the rate and how soon it (B) may have to change the rate. Further, if the PUC determines that B's revenues from the competitive sector must be credited against B's total cost of service, B's interest in continuing the service at its offered rate may disappear. Finally, C will have to make a judgment concerning its ability to return to utility A and the extent of the rate penalty it may suffer in doing so.

even if the third-party supplier stops providing power. The host utility and other surrounding systems must always plan for this contingency.

3. Service Reliability

Utilities have argued that mandatory retail wheeling can significantly complicate the task of assuring adequate, reliable service to customers. The first response of the ACCESS report is that retail wheeling is occurring and has proven to be feasible. While the authors are correct that some retail transmission is occurring, it is exceedingly limited. The report only points to four cases of retail wheeling.⁴² In one of these cases, Dow Chemical Company generated power in Canada and had it wheeled by Ontario Hydro, Detroit Edison and Consumers Power for ultimate delivery to another Dow Chemical facility in Michigan.⁴³ The other three cases involve power originating with a public power agency. In one case, the city of Lafayette, Louisiana arranged to install a substation at a Stauffer Chemical Company plant (now owned by Pioneer Chlor-Alkali, Inc.) and sought wheeling service from Gulf States Utilities. The report concludes that "for all practical purposes, this arrangement constitutes retail wheeling." The other wheeling arrangements cited involve wheels of New York Power Authority power to retail customers in the state of New York pursuant to economic development legislation that provides three specific customers with low-cost, state-owned hydropower. Even if one goes so far as to categorize these transactions as retail wheeling, the ACCESS report

⁴² We are not aware of any others, although no attempt has been made to identify systematically all cases of retail wheeling.

⁴³ This case did not involve stranded investment because the power was wheeled to an increased load that would not have occurred but for the transaction. Further, the transaction was relatively small compared to import capacity from Ontario Hydro, completely interruptible and had a limited term and pre-arranged cut-off date.

identifies only four utilities regulated by the FERC, out of a total of over 150, as being involved in any retail wheeling.

The report's emphasis on the feasibility of some retail wheeling is misplaced. No one questions that some retail wheeling is technically feasible. To the extent that there are concerns about the feasibility of retail wheeling, they are associated with a scenario in which retail wheeling takes place on a wide scale in the multi-control area circumstances of the U.S. One possibility is that widespread retail wheeling would require a massive extension of existing telemetering systems to enable utilities to follow the loads of numerous customers on various systems outside their control areas. This would require more powerful computer systems and more advanced software.⁴⁴ While all of this may be possible, the recent outages suffered by AT&T and the regional Bell companies in providing ever more complex computer-based service offerings attests to the presence of real reliability problems that must be addressed. The point is that no one disagrees that a little retail wheeling is technically feasible. But no rational case for widespread wheeling can be made by citing four instances as done in the ACCESS report.

The second response of the ACCESS report is that while retail wheeling might add a new dimension to technical and institutional problems, "concerns over technical barriers to retail wheeling have been laid to rest."⁴⁵ The authors cite the recent report of the Office of Technology Assessment (OTA)⁴⁶ in concluding that there are "no

⁴⁴ This also raises a cost issue, namely, what customers should pay the costs of the more powerful computer systems and advanced software?

⁴⁵ ACCESS report, op. cit., pp. 42-43.

⁴⁶ Congress of the United States Office of Technology Assessment, Electric Power Wheeling and Dealing, May, 1989.

insurmountable problems with common carriage scenarios, including unlimited retail access.⁴⁷ The issue, however, is not insurmountable obstacles, although the absence of significant obstacles in the regulatory/institutional framework of the U.S. electric power industry remains undemonstrated. Rather the issue is whether the additional complexities and uncertainties stemming from unlimited retail access in the balkanized U.S. electric power industry can be accommodated at reasonable cost without undermining the current level of service reliability. Indeed, the OTA report cited in the ACCESS report emphasizes such concerns:⁴⁸

Given the decreased authority of utilities to claim transmission limits and set priorities for use of constrained facilities (e.g., a rebuttable assumption that the capacity to wheel exists places the burden of proof on the utility), regulators must make provisions to ensure that significant degradation of reliability and economy does not occur under mandatory wheeling. Determining which wheeling orders can be issued without exceeding a system's capabilities will require expertise and data in detailed areas of utility engineering and analysis, including economic dispatch modeling, load flow analyses, and contingency and stability analyses . . . Wheeling may require revising both generation and transmission system planning as new patterns of load and suppliers develop. Provisions addressing the advance notification given by retail and requirements utilities before switching suppliers will need to be developed. Additional generation and transmission reserves may be required to account for any increased uncertainty or loss of coordinated control in operating and planning.

Concerns that reliability of the networks may be adversely affected by widespread mandatory retail wheeling are quite legitimate. They cannot be dismissed based on the

⁴⁷ ACCESS report, op. cit., p. 44. Whether this accurately reflects the OTA view, depends on the meaning attached to "unlimited retail access." The OTA report is clear that "A system of transmission access on demand or unrestricted access cannot be implemented." OTA Report, p. 146.

⁴⁸ OTA Report, p. 151.

absence of demonstrated technical barriers or the few isolated examples of retail wheeling cited by ACCESS.

V. CONCLUSION

The ACCESS report adds little or nothing to the debate over the possibility of mandatory retail wheeling as a means of fostering enhanced competition in the electric power industry. It also suffers from: (1) lack of detail sufficient to permit comprehensive assessment, and (2) reliance on a general unsupported presumption in favor of competition at the retail level that is left unanalyzed in the context of present electric power markets. Concerns of the industry relating to stranding of investment, obligation to serve, and service reliability are dismissed as having little or no foundation.

The authors argue that stranded investment is not a problem because of notice provisions in existing contracts, interruptible rate schedules for some customers, the notion that stranding of some investment "unstrands" other investment and the notion that risk of loss of load because of retail wheeling is not greatly different from risks of loss of load that utilities now face. These arguments provide no support for retail wheeling; all of them are answered in this paper.

With regard to the obligation of utilities to serve returning customers, the authors of the ACCESS report claim: (1) the utilities do not now have an unqualified obligation to serve all comers, and (2) that such obligation should not significantly disrupt utility planning. The first of these claims overlooks political reality; the second is simply incorrect.

Finally, the authors dismiss utility concerns about the effect of mandatory retail wheeling on service reliability on grounds that retail wheeling is technically feasible and

is occurring. As the OTA report cited by the authors makes clear, however, the matter is not so simplistic. Certainly the ACCESS report does not begin to demonstrate that the additional complexities and uncertainties associated with widespread retail wheeling can be accommodated at reasonable cost without adverse effect on the quality of electric service.