CHAPTER V

Mitigation of Potential Stranded Costs

A. Introduction

"Mitigation" of stranded costs essentially means a reduction in the amount of potential stranded costs. The term implies active efforts by utilities to minimize the amount of potential stranded costs they may face once retail competition is introduced. The perceived need for mitigation is based on these assumptions: (1) that since stranded cost recovery will have some detrimental impact upon the workings of a free and unfettered competitive market for electricity, it is best to minimize the impacts of stranded costs on the new electricity market; and (2) minimizing or eliminating stranded costs will result in potentially lower bills sooner for customers. Mitigation of stranded costs can occur prior to the start of retail access, or during the remaining lives of the generating assets giving rise to stranded costs after retail competition is initiated, or both.

Mitigation is a broad term, and is not necessarily used in the same sense in all stranded cost contexts. In particular, mitigation can be defined differently from the customers' perspective and the utility's perspective. Mitigation from the customers' perspective means that the utility (and its regulators) takes all possible steps to reduce its need for potential stranded cost recovery, so that customers are the last possible source of recovery of these costs. Mitigation from the utility's perspective means that its stranded cost total is minimized at the time competition is introduced. Since one way of mitigating stranded costs under this definition is collecting additional amounts from customers in rates to recover potentially stranded costs prior to the initiation of competition, this definition does not necessarily imply that customer payments for stranded costs are minimized. We will discuss both types of mitigation in this report.

If stranded costs are thought of as primarily consisting of past, sunk capital costs incurred by utilities that will not be recoverable in a competitive electric market, it should be noted that direct mitigation of such costs is not generally possible. It is generally not possible to "reduce" an expenditure that has already been made. Therefore, the term mitigation usually signifies a cost reduction or revenue enhancement that can be offset against stranded cost amounts, not necessarily a direct reduction in sunk capital costs. It should also be noted that use of successful mitigation efforts to reduce rates will not mitigate stranded costs. Without expressing any opinion on whether the electric restructuring process should include provisions for rate reductions for some or all

customers, it is true that revenue enhancements and expense reductions will have no impact on stranded cost amounts unless the utility is allowed to retain the savings for at least a period of time.

The perceived importance of stranded cost mitigation policy can be measured by the fact that most regulatory agencies that have to date made decisions regarding stranded cost recovery have specified that only recovery of stranded costs net of mitigation will be allowed. Affirmative actions by utilities to reduce their potential stranded cost exposure are expected before responsibility for stranded cost recovery is passed on to ratepayers. For example, the Connecticut Commission noted that utilities' obligation to mitigate stranded costs is similar to the obligation to mitigate damages. For example, utilities must make reasonable efforts to reduce stranded cost losses; could not passively allow the losses to accumulate; and could not incur further expenditures when they could be avoided.[25]

The remainder of this section will describe the various mitigation techniques and strategies that may be available to utilities and regulators to reduce future stranded cost exposure. By discussing these techniques, it is not our intention to endorse or encourage use of any particular technique or strategy. We will also set forth the Working Group's overall conclusions on this issue at this time.

B. Types of Mitigation

Mitigation techniques can generally be separated into the following categories: (1) cost reductions; (2) revenue enhancements, (3) cost shifting, and (4) indirect mitigation. Each of these categories will be described in turn.

1. Cost Reductions

This category reflects measures utilities can take to bring the embedded cost of generation (including operating costs) and purchased power contract prices closer to the market price of power.

These measures might include:

a) Generation expense savings from plant heat rate reductions, generation operations and maintenance expense reductions, and savings from the retirement of uneconomical generating units;

b) Generation-related savings in reduced overhead expense, such as decreases in general plant and A&G expenses;

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[25] CPUC Order in Docket No. 94-12, Page 101. The Commission findings on restructuring did not go into effect as enabling legislation was not passed.

c) Refinancing of debt and/or buyback of equity (this item does not encompass "securitization" of stranded costs, which is discussed separately in this report);

d) Divestiture of generating assets. While divestiture will not always result in a higher market value determination than an administrative approach, divestiture can be thought of as a mitigation technique to the extent there are willing buyers who expect to be able to operate the asset and/or to market power more effectively than the current owner. Under administrative approaches, it may be difficult to identify this extra value;

e) Renegotiation or buy-out of above market purchased power contracts; and

f) Minimization of new capital investments.

2. Revenue Enhancement

This mitigation category involves efforts by utilities to increase their revenue levels, generally by taking advantage of new opportunities presented by a deregulated, competitive electric industry. These efforts might include:

a) Marketing of excess capacity or energy. Even power that is uneconomic in a competitive market will have some value on the market. It would be appropriate for utilities that have freed-up capacity due to the loss of customers to competitive forces to still market the freed-up power and maximize their return on it;

b) Auctioning of excess capacity or energy;

c) Marketing strategies to improve system load factors;

d) Sale of ancillary services;

e) Sale of excess emission allowances;

f) Business opportunities associated with nongeneration assets and resources with a market value greater than book value.

This category also includes potential competitive leveraging of transmission and distribution assets (e.g., T&D rights-of-way, dark fiber, customer billing system hardware and software, power marketing assets, and metering systems with the capacity to offer competitive services). It may also include the intangible assets and resources that can enhance both power marketing and retail

merchant function profitability, such as in-house expertise in all aspects of the electric business, customer loyalty and brand name recognition, and customer billing and credit information. To the extent this category reflects revenues and expenses associated with nonregulated activities, some parties would be strongly opposed to inclusion of this item as an acceptable mitigation approach. Also, if this type of mitigation is judged to be appropriate, it could be argued that "lost enterprise value" to utilities as a result of restructuring (which might include such impacts as foregone economies resulting from disaggregation) should be reflected as an offset to this item as well.

3. Cost Shifting

This category does not necessarily represent true mitigation strategies, as it does not result in revenue increases or expense decreases. Rather, these measures result in a shifting of cost responsibility between utility customers and shareholders, or between classes of ratepayers, or an acceleration of cost recovery from customers, all designed to reduce overall stranded cost totals. Depending on a utility's earnings level at the time, use of the these options will have different impacts on whether, and if so how much, costs are actually shifted to customers or shareholders by these strategies. Among the ideas frequently discussed within this category are:

a) Acceleration of depreciation of generation assets to increase recovery of fixed costs while the retail franchise is still intact;

b) Voluntary write-offs of above market generating plant costs; and

c) Changes in the timing, pace and extent of restructuring.

These factors can influence the relative amount of stranded costs. For example, delaying retail access by several years should have the impact of reducing a utility's stranded costs, as the book value of its assets will decrease over time. However, this potential reduction in stranded costs is a consequence of denying customers the receipt of potential benefits from competition for the period of the delay.

4. Indirect Mitigation

Indirect mitigation techniques refer to regulatory structures or practices that, while not contributing directly to an increase in revenues or a decrease in expense for the utility, may intentionally or as a side effect support an environment that encourages and provides incentives to utilities to mitigate their potential stranded costs. These practices might include:

a) Rate freezes. An inability to raise rates may put significant pressure on a utility to mitigate stranded costs, particularly if there is a limited time period prescribed for the recovery of stranded costs. (However, mitigation concerns are generally not the primary expressed reason for adoption of rate caps or rate freezes);

b) Mandatory rate reductions for some customer classes. This approach, adopted in some jurisdictions to ensure that residential and small commercial customers receive lower bills sooner, will as a side effect put pressure on utilities to mitigate stranded costs;

c) Incentive regulation. Also known as alternative regulation or performance-based regulation, this approach generally allows utilities to retain a portion of overearnings as an incentive for greater efficiency (while giving a portion of the overearnings back to customers in the form of rate reductions or rate credits), as opposed to reducing rates in total to what otherwise would be considered a reasonable return on equity. This concept can be applied to stranded cost recovery by using all or part of the utility's share of overearnings to write down potential or actual stranded costs. By making some portion of a utility's stranded cost recoverable through an incentive regulation plan, the company would have a powerful incentive to maximize its earnings so as to earn the returns necessary to write down its stranded costs.

d) Shared savings. Some jurisdictions (Rhode Island, for one) have allowed utilities to retain a portion of any savings associated with a renegotiation or buy-out of uneconomic long-term contracts, as an incentive for the utilities to mitigate stranded costs in that manner. In the same fashion, New York has also provided utilities an opportunity to retain a portion of the proceeds associated with auctions of generating assets, instead of devoting all the gain to offsetting stranded costs.

C. Conclusions

We believe that effective efforts to mitigate stranded costs are essential to providing ratepayers an opportunity to experience a reasonable level of benefits from the introduction of competition. Any allowance for stranded cost recovery should be balanced by a requirement that

utilities receiving such recovery mitigate their stranded costs to the maximum extent possible. To that end, we offer the following recommendations.

First, in any proceedings in which stranded cost recovery claims are made by utilities, those parties requesting stranded cost recovery should, along with their stranded cost estimates, present estimates of the expected mitigation of those costs as well. The Commission should have authority to consider whether such mitigation efforts are reasonable and sufficient in determining the amount of stranded cost recovery to authorize. One possible approach would be to allow the Commission to take into account the reasonableness of a utility's mitigation efforts in determining what return, if any, should be allowed on stranded investment. Absent exceptional circumstances, a utility should not receive stranded cost recovery based solely on estimates of stranded costs derived from current financial data, with no evidence as to potential and actual mitigation efforts.

Second, the use of incentives to encourage active mitigation efforts by utilities should be considered. Although there is no present indication that long-term purchased power contracts will be a major source of potential stranded costs in Missouri, the idea of allowing utilities to retain a small portion of the renegotiation/buy-out savings associated with above market contracts is attractive in concept. If divestiture is thought to be an attractive approach to mitigation of stranded costs (or for other purposes), then incentives for divestiture similar to those offered in New York might be considered. More generally, the concept of using incentive plans or performance-based plans as a tool in allowing stranded cost recovery should be explored. In practice, this would mean the utilities would be at risk from recovering a portion of their stranded costs through the utility's share of earnings above authorized levels. This would put the burden of recovery of that portion of stranded costs on the utility's shoulders, requiring it to achieve earnings levels sufficient to allow the opportunity for full stranded cost recovery.

Third, we do not believe it should be the role of the legislature or regulators to be overly prescriptive in detailing how utilities should mitigate stranded costs. A better approach would be to establish overall ground rules for restructuring that provide adequate incentives for mitigation by utilities. Such approaches would allow the utilities to determine for themselves what would be the best approaches to mitigating stranded costs, and thus appropriately leave the financial and operating decisions necessary to adequately mitigate stranded costs to utility management.

Finally, the question may arise as to what extent utilities should be able to take steps to mitigate stranded costs prior to the introduction of competition, particularly when those steps may

have immediate rate impacts on customers. As a general rule, we do not believe rates should be increased to allow for "mitigation" of stranded costs, since customers as of yet do not have any way of benefitting from the introduction of competition, and should not be expected to pay for competition in advance. With that caveat, however, we do believe the Commission should have the authority to consider, in advance of competition, mitigation strategies for utilities that do not require rate increases. Along this line, we recommend that utilities be given greater freedom to accelerate recovery on their books of generating assets than current regulatory rules allow, if such increases do not have any rate impact. However, this policy interest should continue to be balanced by the ongoing objective that ratepayers receiving monopoly service pay rates that do not exceed a "just and reasonable" level. Also, this general recommendation should not be interpreted as advocating any action that would violate the spirit of existing agreements concerning incentive/sharing plans that are already in place, unless all of the parties to the agreement concur with any proposed revisions.

CHAPTER VI

Role of Securitization

A. Introduction

Securitization is a financing technique that can be applied to stranded cost collections, which has the potential to mitigate the amount of stranded cost recovery to some degree. Statutes allowing use of securitization in electric restructuring efforts have been passed in California, Illinois, Massachusetts, Pennsylvania, Rhode Island, and other states. However, not all jurisdictions have accepted the use of securitization, and it remains controversial for several reasons that will be explored further in this chapter.

As a potential mitigation technique, the issues raised by securitization are unique enough that the Working Group believes this subject deserves extended discussion in the Report beyond that given to other mitigation strategies in Chapter V.

B. How Securitization Works

Under a securitization procedure, the state legislature or state regulatory commission irrevocably orders that consumers pay a separate charge as part of their overall electric bills to allow a utility to recover an identified portion of its stranded costs. The utility billing the stranded cost amounts pledges to pay to a trust (or other special purpose entity) the stranded cost amounts expected to be received from customers. The trust then sells bonds to security investors, promising to use the stranded cost proceeds received from the utility to repay the bonds and pay interest on them. In turn, the trust provides the bond proceeds to the utility, giving it upfront recovery of the portion of stranded costs that were securitized. From that point, the utility continues to collect the stranded cost amounts from current customers (and former customers choosing new suppliers) in its previous service territory. The utility then turns the proceeds over to the trust, which uses the proceeds to repay principal and interest on the bonds.

In most states, legislation is required to allow securitization of stranded cost transactions to go forward. This is because legislative action is normally required to define the future stream of stranded cost recovery revenues as an intangible property right that can be sold by the utility. Also, the benefits of securitization are heavily dependent upon favorable tax treatment of the transaction from the utility's perspective. Specifically, the utility will want to avoid incurring a tax liability associated with the upfront lump sum payment from the trust, and to defer recognition of revenue

from the stranded cost payment stream until it actually receives payments from customers. So far, IRS rulings have been supportive of utility use of securitization in these respects.

Finally, securitization is not unique to the electric industry. Securitization transactions are carried out routinely for such items as credit card payments and mortgage payments. Nor is there any conceptual reason why utilities could not use securitization in other aspects of their business besides stranded costs, including transmission and distribution operations, assuming supporting state legislation and tax treatment that would allow funds to be raised in this manner at a lower cost of capital.

C. Securitization Proponents View of Benefits

The major perceived benefits of securitization claimed by advocates of this procedure are as follows:

1. The utility is able to lower its cost of capital. This is because the securitization bonds will pay a lower interest rate commensurate with a high grade instrument, as opposed to the higher cost associated with the utility's existing cost of capital.

2. Customers benefit to the extent that the utility's lower cost is shared with customers through lower rates and/or a reduction in stranded costs.

3. Those interested in holding bonds benefit in that the securitization bonds represent a high grade investment opportunity.

D. Securitization Critics View of Detriments

The major criticisms of securitization that are commonly heard are:

1. Securitization results in an inappropriate shifting of risk, and
2. Securitization encourages the potential for anticompetitive conduct.

Opponents of securitization assert that the reduction in the required return on stranded assets resulting from securitization flows from the fact that securitization lowers risks for bondholders by shifting repayment risk to utility customers. The lower the risk to investors, the lower the cost of capital demanded. Keeping in mind the earlier discussion of stranded cost estimation techniques, it is clear that these estimates may be subject to considerable forecasting error. But if securitization is premised upon an irrevocable right of the utility to recover a certain amount of stranded costs in rates, which in turn will be passed along to the securitization trust, then any forecast error in the

original stranded cost estimates by definition cannot be corrected. The risk that stranded cost estimates may be incorrect will be shifted from the utility to its customers by use of securitization.

This point is illustrated by the nature of the true-up mechanism that is usually part of the securitization procedure. A securitization true-up is wholly different in concept from the types of true-ups previously discussed in Chapter III. A securitization true-up will not correct for errors made in forecasting the market price of power and other variables, for example; it is only intended to make sure that actual stranded cost collections from customers equal the amount of stranded cost recovery the securitization bonds are based on. Given that inaccurate forecasts of stranded costs will not be corrected under securitization, use of this technique does not guarantee that customers will not overpay stranded costs relative to the amount actually incurred by the utilities. The inability to perform true-ups for securitized stranded costs in the manner suggested in Chapter III is a less serious concern if stranded costs are quantified using market methods rather than administrative methods. It is partly due to true-up concerns that some jurisdictions that have allowed securitization restrict its use to some percentage of total estimated stranded costs.

There is also a concern that securitization will foster or encourage an anticompetitive environment in the developing electric market. As previously explained, securitization may allow utilities complete recovery of stranded costs upfront. The utilities will have some of their generating assets completely paid off at the onset of competition, plus enhanced cash flow from the securitization proceeds. This would leave the utilities in a better position than they would be if they had remained under traditional regulation, and will also leave them in a better position than potential unregulated competitors in the generation market. Fears have been expressed that utilities with paid-off assets and a "war chest" of cash will be able to price generation aggressively to drive potential competitors out of the business, and/or use their securitization cash to acquire potential competitors and forestall competition.

The remedy most often suggested by those concerned about securitization's impact on the competitive market is to require utilities to utilize securitization proceeds to write down the capitalization on their books related to the stranded assets. Some jurisdictions have adopted this proposal. Other critics assert, however, that this is not a genuine solution since the utility's total debt capacity remains unchanged and the retirement of generation-related debt will make room for the issuance of new debt that can be used for competitive ventures. Some commenters also suggest that

availability of securitization should be restricted to utilities that divest generating units, so the proceeds are not allowed to distort the generating market in any manner.

E. Securitization Proponents Response to Criticisms

Proponents of securitization claim that the risk shifting argument opposing securitization is really based solely on a concern that the amount of stranded cost recovery that the securitization bonds are based on might exceed the actual stranded cost incurred. This risk can be effectively eliminated by limiting the amount of stranded cost recovery that can be securitized. However, as mentioned, the value of securitization to both the utility and the customer is that it provides up front cash at a lower cost of capital. Thus, any limitations on the amount of stranded cost recovery that can be securitized limit the extent to which utilities and customers can enjoy the benefits of securitization.

The "anticompetitive" concern is based upon what proponents believe to be a fundamental misunderstanding or misrepresentation of the facts. Securitization does not leave utilities with paid-off assets and a "war chest" of cash. First, stranded cost is by definition what the utility cannot recover in a competitive market. The assets are not "paid-off," only the nonrecoverable portion of assets are stranded costs. The point of stranded cost recovery is to put utilities on the same footing as competitors so that future competition is based on going forward costs, not costs that utilities incurred under the regulatory regime. Securitization is a tool that can be used in stranded cost recovery. The concern over "paid-off" assets is an attempt to reintroduce objections to stranded cost quantification and the amount of recovery. Second, securitization does not create a "war chest" of cash. What it does is allow the utility to borrow against the proceeds of the amount of stranded cost recovery that is allowed to be securitized at a lower cost of debt than the utility's existing debt. A utility can always seek to borrow funds to obtain up front cash, but the cost of raising that cash will be higher absent securitization. Here again, the point of using securitization is to put utilities on the same footing as unregulated competitors.

The write-down or divestiture remedies reflect the concerns of those with objections to the quantification of stranded costs and the amount of stranded cost recovery that should be allowed, rather than concerns with securitization as a tool for use in stranded cost recovery.

F. Conclusions

The concept of securitizing stranded costs is far from a cure-all in addressing stranded cost recovery issues. We accordingly recommend that policy makers approach the concept of securitization carefully. Under certain circumstances, securitization may be helpful in mitigating stranded costs. Accordingly, options for its possible use should be preserved, keeping in mind the previously expressed concerns.

CHAPTER VII

Pros and Cons of Stranded Cost Recovery

A. Introduction

This chapter of the report provides some of the more prominent arguments noted in the literature discussing stranded costs, from both sides of the controversy: those arguing for full stranded cost recovery and those advocating no, or limited, recovery. The presentation of these points herein is intended to be neutral and unbiased toward either position.

B. Reasons for Allowing Stranded Cost Recovery

Certainly the most common rationale offered for stranded cost recovery is the need to adhere to the "regulatory compact." The "regulatory compact" refers to an unwritten set of alleged mutual obligations between utilities and government authorities/regulators that have governed the operations of the electric utility industry in this country through most of this century. While regulatory compact arguments, pro and con, often have legal implications that may to some degree overlap with the arguments discussed herein, it is not our intent to address legal points in this document. Any legal issues concerning the stranded cost recovery that need to be brought to the Task Force's attention will, we assume, be addressed by the Task Force's Legal Committee.

The regulatory compact is most often characterized as granting a utility an exclusive franchise to serve customers in a particular service territory, in return for obligating that utility to serve all customers who desire, and pay for, service within that area. Further, the government/regulators promise to provide the utility an opportunity to earn a reasonable return on the investment necessary to provide its customers with safe and adequate service. While the utility will be constrained from earning excessive rates of return on its investment, it also should not take a loss or earn an inadequate return on capital it has invested in a prudent manner to serve its customers.

In relation to potential stranded costs, proponents of recovery assert there are in particular two key points to be made from the above discussion. First, that the obligation to provide service to customers, and to make the necessary investments to do so, was not discretionary to the utility but was required of it. The resource decisions made by utilities to fulfill the obligation to serve were not to be judged in hindsight under the current regulatory regime as to whether they were the most economical course of action to take, but rather would be assessed by regulators under a "prudence"

standard, that is, did the utility make the right decisions based upon the facts and circumstances known to it at the time the decisions were made. Accordingly, the argument follows that it would be inequitable and unjust not to allow shareholders full recovery of investments that utilities were obligated to make to serve their customer base. Also, since all investments currently reflected in customer rates have presumably been determined to be prudently incurred by regulators, it would not be appropriate to retroactively disallow recovery of prudent investment by a change in the method of regulation.

The second point frequently made by parties relying on the regulatory compact theory to justify recovery of stranded costs is the fact that utilities have been restricted from earning high rates of return on their investment under the regulatory methods used currently and in the past. Any excess profits or large gains would not be allowed to be retained on an ongoing basis by the utility, but would be passed back to customers in the form of rate reductions. Symmetry would then require that any losses to utilities from the introduction of competitive forces in the electric industry should not be passed on to shareholders, under the rationale that if utilities historically have not been allowed to retain large gains, neither should they be required to incur large losses.

In its basic form, arguments for stranded cost recovery based on the regulatory compact amount to a claim that it is unfair for utilities and their shareholders to incur a loss associated with a change in the regulatory rules implemented in the middle of the game. Notwithstanding any legal claims that may be made, it is an equity argument: "we played by the rules set in the past, therefore it is unfair for us to now incur losses on investments made pursuant to the utility obligation to serve that were determined to be prudently made at the time."

Some jurisdictions that have approved stranded cost recovery in some form, but have nonetheless rejected legal claims mandating stranded cost recovery (Maine, Massachusetts), have recognized "equity" arguments made by utilities in regard to the regulatory compact, and have in part based their decision to allow recovery based on what they perceive to be the importance of government bodies "living up to their past commitments." They assert failure by the government to allow recovery of past prudent investments would undermine the faith of the financial community in future electric markets and regulatory structures, as investors would not be sure that the government would not again later change the rules and put their investments at risk.

Not all arguments for stranded cost recovery are directly based upon the regulatory compact concept. For example, failure to recover stranded costs is sometimes alleged to endanger the

financial viability and integrity of (at least) some utilities. The resulting financial disruption could endanger the provision of safe and adequate service by the utilities. Loss of jobs would be one likely result. In extreme cases, utility bankruptcies may occur.

Also, the risk of asset stranding is argued to have never been incorporated into the authorized returns on equity granted to electric utilities by regulators. Therefore, the risk of a fundamental change in regulation is an uncompensated risk, necessitating stranded cost recovery. In the area of rate of return, it is also alleged that stranded cost disallowances will raise the utilities' cost of capital on a prospective basis, making it difficult for the utility to raise capital and provide service to customers at competitive rates.

Proponents of stranded cost recovery also argue that government in general and regulators in particular have mandated, approved or encouraged utilities to make some of the investments that may become stranded in the competitive environment. Power purchases from "qualifying facilities" at administratively set "avoided cost" rates in accordance with the PURPA Act of 1978 and demand-side planning initiatives are two examples of "mandated" expenditures that are frequently mentioned as potential stranded costs. It is also alleged that the federal government for many years actively encouraged utilities to construct nuclear generating units as part of the overall energy policy in effect at the time. Stranded cost proponents also note that regulators generally had the power to approve or disapprove generating resource decisions made by utilities. Finally, the creation of "regulatory assets" by regulators (which are also subject to stranding) and the setting of purportedly inadequate depreciation rates for utilities are argued to have resulted from, in part, a desire by regulators to delay recovery of utility costs to later generations of customers, exacerbating potential stranding problems.

In response to the argument that stranded cost recovery may be anticompetitive, proponents of recovery have argued that, to the contrary, stranded cost recovery is necessary for true competition to evolve. The argument is that, under principles of efficient competition, utilities should compete on the basis of short-run marginal costs (i.e., the cost to provide the next unit of service.) The amount of "sunk" cost a utility might have on its books is argued to be irrelevant to its ability to compete on a marginal cost basis. The concern is that a competitor that has higher marginal costs than the incumbent utility may still nonetheless be able to provide a cheaper rate to the customer because it did not have to incur the sunk costs that the incumbent has incurred. By allowing the utility to collect stranded costs through a charge regardless of whether it continues to serve a particular customer or not, the utility's sunk cost disadvantage is eliminated, and it is free to compete

on the basis of its marginal costs. In the absence of stranded cost recovery, to allow the firm with higher marginal costs to provide service to the customer is held to be against the principles of economic efficiency, and might lead to the premature retirement of low marginal cost facilities by incumbent utilities, and the building of relatively high marginal cost generating units by competitors.

Another argument for stranded cost recovery within the realm of economic theory is that any savings to customers from disallowance of stranded costs are not true "savings" in the economic sense, but are merely transfers of wealth from utility shareholders to utility customers and/or electric competitors. In other words, there is no true societal benefit resulting from failure to charge customers for utility stranded costs.

Finally, it is often argued that stranded cost recovery as a policy is a necessary condition for the electric utilities to cooperate in the transition to a new, competitive industry structure. Otherwise, the restructuring process could be tied up for years in the court system, with customers effectively denied the potential benefits of competition.

C. Reasons for Not Allowing Full Stranded Cost Recovery

The regulatory compact, or lack of one, also is a predominant theme in the positions advocating no or limited recovery of stranded costs. The contention is that the regulatory compact, as such, does not exist. It is argued that there was never a formal "compact" or contract agreed to, delineating the responsibilities and obligations of all the involved parties. The regulatory compact under that theory would be an after-the-fact construction conveniently put forth to support utility claims of injury from the onset of competition. Some have stated that this belief is supported by research that shows that there does not appear to be any use of the term "regulatory compact" prior to the early 1980s, when it was first alleged by utilities that the compact was breached in the context of the nuclear cases of that time period.

Even if the regulatory compact exists, and even if the common characterization of it is a fair description of the mutual obligations of the utility and its regulators, opponents of full stranded cost recovery question why the past existence of the compact should be held to now protect the utilities against the impact of competition. It is noted that the obligation to serve customers, in and of itself, would not lead to the incurrence of above-market costs. Above-market costs would be more associated with the specific resource decisions made by utility managers. Further, it is argued that utility customers were never part of any compact except to the extent they were "locked" into it,

never had an affirmative obligation to buy from the utility, and therefore should have the right to "opt out" of the compact if more economic electric service alternatives become available to them.

Most of the response to stranded cost recovery arguments that relate to the regulatory compact revolves around the basic concept that the move to competition is premised all or in part on a belief that the present regulatory system has failed to provide electricity to customers at rates that reflect reasonable cost levels and efficiency. In that event, if a regulatory compact exists, it has not worked well from the perspective of the customer. The argument follows that the utility shareholder then should not be held harmless relative to the utility customer when competition is introduced and exposes the existence of above-market costs.

As with pro-stranded cost recovery arguments, there are many opposing viewpoints that do not relate directly to regulatory compact concerns. A primary counter argument is the belief that recovery will effectively eliminate all or most potential customer benefits that may arise from competition. There may be little savings available to the customer once full stranded cost recovery is charged to them.

Opponents of full stranded cost recovery, while conceding that some categories of stranded costs may have been imposed on utilities (such as QF purchases), disagree with the notion that utility managements should not be held accountable for most generating resource decisions that ultimately led to stranded costs. They assert that utilities obviously had some degree of responsibility for their relative cost levels, a responsibility which is inconsistent with 100% assignment of above-market costs to customers. They point out that utility management had primary responsibility for resource decisions, and their ability to make these decisions was generally not significantly compromised by regulators or legislators. In response to arguments that regulators approved these decisions, it is countered that some utilities canceled large construction projects (nuclear and otherwise) in the late 1970s and early 1980s, once again with the approval of regulators. Companies that made these decisions limited their stranded cost exposure compared to utilities that kept constructing units that contributed to overall industry excess capacity and high costs. Stranded cost recovery is held by some to be anticompetitive because it essentially precludes other suppliers from securing the business of customers served by high cost utilities. This is because high stranded cost recovery makes the amount of money the customer can save by switching so small that even low cost competitors cannot afford to sell at a price below that level; and thus a competitive market will not develop.

In response to the argument that stranded cost recovery is necessary for true economically efficient electric competition (i.e., competition based on marginal costs), the counterargument is that such a belief is too much focused on "static efficiency," that is, an electric provider's marginal cost at a point in time. That type of analysis ignores "dynamic efficiency," which is defined as the change in marginal cost levels over time. Because stranded cost recovery is held both to remove significant incentives for utilities to lower their costs and become more efficient providers and remove incentives for competitors to enter the market, dynamic efficiency will likely be harmed by stranded cost recovery. The decrease in static efficiency that may occur as a result of no allowance for stranded cost recovery is alleged by some to be outweighed by the likely increase in dynamic efficiency if competition is introduced and little or no stranded cost recovery is granted.

Further, the disincentive for cost reduction alleged to be an inherent outcome of stranded cost recovery has several other bad effects, it is argued: utilities may devote more effort to "finding" additional stranded costs to submit for recovery rather on efforts to lower costs and be more competitive, and such recovery will be a disincentive for utilities to retire inefficient generating units.

Stranded cost recovery, rather than being a means to level the playing field among potential competitors, is argued to be a reward to those utilities that have been least efficient in the past compared to those that have done a better job of keeping their expenses and rates down. In this regard, it is also pointed out that recovery would be unfair to those companies that took actions on their own to write down asset values potentially subject to stranding.

As for the allegation that failure to approve full stranded cost recovery will increase cost of capital for the electric industry, a common response is that introduction of competition is supposed to increase the cost of capital compared to utilities still operating as a monopoly. Utilities under current regulation can also earn either above or below their authorized cost of capital, with some utilities earning above their authorized return for significant periods of time. In addition, any increase in the required rate of return will be counterbalanced by the reduction in cost of capital for transmission and distribution utilities no longer involved in generation activities, if utility disaggregation becomes widespread. It is also argued that the prospect of competition in the electric industry is not a new or sudden development to investors in the electric industry, and that investment analysts have indicated that they do not expect full recovery of stranded costs to be granted.

In the area of rate of return, some studies have shown that over an extended period (from the early 1970s to the early 1990s), utility stocks have achieved a greater return overall than competitive

industry stocks. All other things being equal, utility stocks should earn a lower return than nonregulated companies as they face less risk. Since these studies show the opposite result, it is argued that utilities as a group have in fact earned excessive returns over a period of time, and these excess earnings should be assumed to be at least a partial recovery of stranded costs, if the utilities seek to recover them.

In response to the assertion that stranded cost recovery should be allowed to keep utilities from stalling the competitive transition in court, the counter argument is that stranded cost issues should be decided on the merits to the greatest degree possible, with "political" considerations secondary if they are considered at all. It is also usually noted that utilities made similar arguments about prudency and "used and useful" disallowances in relation to nuclear plants in the 1980s, and were largely unsuccessful in the courts.

Finally, in response to arguments that all stranded costs have at some point been found to be prudently incurred and therefore should be recoverable, it is asserted that stranded costs may fail to meet the "used and useful" ratemaking test often used along with the prudency standard in setting rates. (The used and useful test holds that an investment should not be reflected in a utility's rate base unless the regulator determines it to be both currently in use and useful to the ratepayer.) The theory is that investments exposed as uneconomic due to competitive forces cannot be thought of as "useful" to customers. Therefore, at the very least, the investment should not continue to receive a full return through stranded cost charges.

CHAPTER VIII

Impact of Stranded Cost Recovery on Key Stakeholders

A. Introduction

The members of the Stranded Cost Working Group were asked to submit their ideas on what the impact of allowing or not allowing stranded cost recovery would be on the major stakeholders of the electric restructuring process: customers, shareholders and potential competitors. The following provides a summary of the comments received. It will be evident that there is a wide diversity of opinion concerning the impact of stranded cost recovery on key stakeholders, related to whether the commenter believes in full stranded cost recovery, or in no, or limited, recovery. Also, while the direction of the stranded cost impacts is generally clear (i.e., positive or negative), the extent of the impact depends upon the size of the allowance or disallowance in relation to the total amount of stranded costs identified.

B. Impact on Customers

According to those parties that desire to limit stranded cost recovery to some degree, the primary impact of stranded cost recovery on customers is to potentially reduce the amount of savings associated with competition and restructuring that will be available to them, for the duration of the recovery period. Those who believe Missouri is a relatively low cost state fear that restructuring can actually result in an increase in rates, particularly for small consumers. (They hypothesize that current low cost power producers in Missouri will seek to sell in higher cost areas rather than Missouri, so as to maximize profits.) If, in fact, book values for assets are less than the market value, then customers will pay more unless there were payments or some other sort of compensation for negative stranded costs. It is also alleged that stranded cost payments could be used as part of a strategy by incumbent providers to engage in predatory pricing in order to deter the development of competition, with the result that prices would be higher in the long term to consumers.

It is theorized that stranded cost recovery will have negative impacts on the dynamic efficiency of utilities. (This issue is generally discussed in Chapter VIII.) According to this theory, stranded cost recovery will act as a subsidy to those electric providers that are less efficient or economical, removing incentives for those firms to reduce costs in order to maintain or increase their market share. A policy of recovery could also discourage entrance into the market of new competitors, who must attempt to recover both fixed and variable costs in the prices charged, while

the incumbent needs to compete only on variable incremental costs because the presence of nonbypassable stranded cost charges covers its fixed costs. Similarly, stranded cost recovery policies based on rate freezes which deny consumers access to competitive markets until the incumbent has "paid down" its fixed costs could create potential "super competitors," again placing potential competitors at a disadvantage. Overall, it is believed by these parties that stranded cost recovery will also result in a less vibrant competitive marketplace, with a decreased range of service offerings and reduced alternative supplier innovation in producing, packaging and delivering value added services.

Turning to those parties who favor full stranded cost recovery, the view that such recovery will limit consumer benefits is termed "simplistic." First, it is pointed out that all potential stranded costs are currently reflected in rates, and recovery should not lead to a rate increase. Second, a policy of denying stranded cost recovery could lead to a situation where the most efficient supplier of electricity may not be chosen, when an incumbent with low marginal costs nonetheless does not win the sale because it cannot recover the sunk costs of the current regulatory structure. This phenomenon is termed "uneconomic bypass." (This economic argument is also addressed in Chapter VIII.)

In addition, pro-recovery parties assert that there will be opportunities for customers to save on their electric bills under competition, even when full stranded cost recovery is allowed. Potential cost reductions cited include the benefit on increased regional coordination of generation through use of independent system operators and enhanced bidding procedures for generation; lower reserve margins; and higher utilization of existing assets through such techniques as real-time pricing.

Some proponents believe that failure to allow for stranded cost recovery could increase rate pressure on smaller customers, if only larger and more sophisticated customers take advantage of competitive opportunities and leave their former suppliers' system, increasing the proportion of the system's fixed costs to be covered by the incumbent's remaining customer base that does not secure an alternative supply that is less expensive.

Finally, it is alleged that attempts to deny utilities fair and full stranded cost recovery will only lead to protracted court proceedings, with the advantages of competition potentially denied to customers for the duration of the legal dispute.

C. Impact on Stockholders

Parties generally advocating full recovery of stranded costs cite negative impacts on electric utility shareholders from failure to provide for such full recovery. At the very least, material

disallowances can increase the cost of financing for affected utilities, and make them less able to compete in the marketplace. At the extreme, where certain utilities' stranded cost exposure may be greater than their entire stockholders' equity, bankruptcy may result from denial of stranded cost recovery.

Further, these parties supporting full recovery state that potential negative impacts of stranded cost policy on shareholders might result in financial relief ordered by the court systems, paid by taxpayers, if shareholders' federal constitutional rights or statutory rights are found to be infringed by stranded cost policymakers.

Parties favoring more limited stranded cost recovery note that negative impacts on shareholders from denial of recovery will, of course, be limited to shareholders of firms with substantial stranded cost exposure. Other current investor-owned utilities without such exposure may well benefit from policies placing significant limitations on stranded cost recovery. It is also noted that even if there is a disallowance of stranded costs, the resolution of uncertainty may have a favorable impact on the stock price.

It is also pointed out by these parties that allowing full stranded cost recovery, without restricting the receiving utilities' use of the cash, could lead to an enhanced ability by those firms to acquire lower cost firms or otherwise foreclose to some degree development of a competitive electric market.

These parties also assert that it will be difficult to ascertain exactly which shareholders will have suffered alleged damage from failure to fully recover stranded costs. To the extent that shareholders have already incorporated some expectation of failure to achieve full recovery of stranded costs in the future (and statements by financial analysts indicate they have), then the stranded cost issue has already had a negative impact on stock prices. If some of the impacted shareholders have already sold their electric utility holdings, then these shareholders would have already sustained losses, and these individuals will not be compensated for their losses unless they can be identified and their losses quantified. On the other hand, individuals buying electric stocks after some expectation of failure to achieve full stranded cost recovery has been established, will achieve an undeserved windfall gain if policymakers later decide to allow full stranded cost recovery. In short, it is alleged that allowing full stranded cost recovery to minimize shareholder harm is a blunt instrument, with the relief not necessarily targeted to those shareholders that actually suffered the damage.

Proponents of recovery counter that this theory not only ignores the damage done to shareholders, but overlooks the negative effect on the incumbent utility. It assumes that because all of the shareholders who have been harmed cannot be identified, no compensation is due to any. They also point out that if expectations deteriorate that the government will fulfill its obligations, the cost of acquiring funds for new investment will rise, thus inhibiting the ability of the incumbent utilities to compete and potentially to survive. It is asserted that this would distort future competition in favor of new entrants.

D. Impact on Competitors

The impact of stranded cost recovery policy on the development of competitive markets is noted to some extent in the above discussion. The only other comments received regarding the potential impact of stranded cost policies on the future competitive market for electricity concerned the need for stranded cost payments to apply equitably to all electricity users within an incumbent provider's service territory. In particular, any stranded cost recovery mechanism that would disproportionately impose those costs on customers who desire to use alternative service providers will both reduce the potential for consumer savings and reduce the amount of potential competition. The concern remains, however, that significant stranded cost compensation to utilities with high fixed costs and relatively low variable costs will place potential competitors at a disadvantage since they do not have any guaranteed recovery but must recover 100% of their costs in the competitive market.

CHAPTER IX

Collection Methodology

The preceding chapters in this report have dealt with a variety of issues pertaining to the identification and quantification of potential stranded costs. After all of this analysis has been completed, a decision must be made concerning how to collect any positive stranded cost balance that is allowed for recovery from consumers, or to amortize any negative stranded cost balance that is identified as appropriately credited to consumers.[26]

This chapter addresses collection methodology in two dimensions. The first is the cost of service/rate design dimension which involves how costs are apportioned among customer classes and then attributed to customers within customer classes. The second dimension is the temporal dimension, which involves a consideration of whether historic or current electrical requirements of customers should be used in applying the collection factors.

Regardless of how the stranded cost issue is resolved for any given utility, the Working Group believes that it is appropriate for any charges or credits to be confined to the customers of each individual utility. Spreading these charges or credits across the customers of other utilities would not be appropriate.

A. Cost of Service/Rate Design Dimension

Books could be (and have been) written about all of the various cost of service and rate design issues. For purposes of this report, it is not necessary to engage in an extended discussion of the various theories which underlie cost of service and rate design, but it is necessary to outline certain basic considerations which influence cost of service and rate design regardless of the particular theories employed.

A review of electric utility tariffs reveals substantial differences among customer classes. Rates for residential and other small customers tend to be fairly simple in structure, usually consisting of an energy charge per kilowatthour (which may be seasonal) and sometimes a separately stated customer charge. In theory, the customer charge collects costs that are relatively uniform from customer to customer and which do not vary as a function of consumption. This includes such things

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[26] Even if it is determined that stranded cost recovery is not necessary or appropriate, the existing rates must still be unbundled so as to identify the component which recovers generation costs.

as metering, meter reading, billing, etc. The energy charge collects both the energy-related costs and the demand-related costs.[27]

Rates for larger commercial and industrial customers tend to be more complicated because they separately assess customer charges, energy charges and demand charges. In addition, these rates often reflect features which are sensitive to seasonality of load pattern and the voltage level at which electric service is taken. Rates for these categories of customers have typically reflected these more detailed pricing considerations because of the diversity of characteristics among the customers within these classes and because the cost of metering was reasonable in relation to the value added because of the ability to price separately for the demand and energy components of service.

Among customer classes, there are significant differences in the cost elements discussed above, leading to differences in cost of service. Many of the industrial and certain commercial and institutional customers (hospitals, large office buildings and schools, etc.) tend to purchase larger volumes of electricity, purchase it at higher voltage levels on the transmission/distribution system and tend to exhibit smaller variations in power requirements on a daily and a seasonal basis,[28] as compared to residential or smaller commercial customers. These variations in size, voltage level and load factor give rise to differences in the cost of serving the various customer classes. These kinds of cost differences are typically reflected in the rates and can be observed in the resulting revenues collected from the various customer classes.[29] A set of fairly typical relationships might be as indicated in the following table:

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[27] As a general rule, the energy-related costs consist of those items which tend to vary as a function of the number of kilowatthours purchased. Fuel and some generation maintenance expense are primary examples of variable costs. The demand-related costs are those which tend to be incurred as a function of the demand of customers for electric power at peak time(s).

[28] Customers who use power on a relatively consistent basis are called high load factor customers, while customers whose usage tends to vary significantly from daytime to nighttime, from weekday to weekend, and from season to season are called low load factor customers.

[29] These differences in cost are generally reflected in rates, but, because factors others than costs (including disagreements about the definition of costs) enter into the ratemaking equation, the differences in rates do not precisely equal the differences in costs.

Table IX - 1

Representative Revenue per Kilowatthour (cents per kilowatthour)

Description	Residential	Commercial	Industrial
Generation Revenue	5.0	4.5	4.0
Transmission and Distribution Revenues	3.0	2.5	1.0
Total Revenues	8.0	7.0	5.0

The differences in average revenue per kilowatthour for generation, transmission and distribution and in total reflect variations in the cost to serve these types of customers.

The above describes what is collected in current rates, where the embedded or book costs of the utility are the basis for establishing the rates. With a competitive environment, the generation component would be priced on a competitive market basis. For purposes of illustration, assume that the market price of generation currently is such that when differences in load factor and voltage level are taken into account, the average price is 3.0¢/kWh for residential customers, 2.7¢/kWh for commercial customers and 2.5¢/kWh for industrial customers. We would then have the situation depicted in the following table:

Table IX - 2

Illustrative Comparison Between Embedded Costs and Market Prices (cents per kilowatthour)

Description	Residential	Commercial	Industrial
Embedded Generation Cost	5.0	4.5	4.0
Market Generation Cost	3.0	2.7	2.5
Difference	2.0	1.8	1.5

To extend the example, assume now for simplicity that the mix of customer classes is such that the values for the commercial class represent the weighted average values. That is, the system-wide average value for generation is 4.5¢/kWh on an embedded basis, and 2.7¢/kWh on a market

basis.[30] Assume now that, at least initially, the amount of Stranded Cost Collection (SCC) is equal to 100% of the difference between book value and market value. On an unbundled basis, customers would pay the embedded T&D charge, the market value of generation, and an SCC equal to the difference between the embedded cost of generation and the market value of generation.

One approach to the allocation of the SCC would be to charge each class the difference between the embedded costs and the market price of generation as determined above. In this particular example, the end result would be that each customer class would continue to pay the same rate that it was paying previously. No customer class would pay less, and no customer class would pay more, and there would not be any shifting of cost recovery among customer classes, or between customers within classes. If a lower amount of SCC is to be collected, a proportional relationship (i.e., 80%) for all classes could be established to avoid cost shifting. In terms of rate design, the SCC would be collected through the demand and energy charges of the rates that have both, and through the energy charge for those rates which collect both demand and energy costs through an energy charge.

Since rates are not always precisely aligned with costs, a second approach would be to adjust the existing rate schedules to match cost of service before allocating stranded cost recovery. Assume for purposes of illustration, and for simplicity, that an adjustment to cost of service would require a 0.2¢/kWh increase in the generation component of the residential rate and a 0.2¢/kWh decrease in the generation component of the industrial rate.[31] Residential customers would now pay 3.0¢/kWh for T&D, 3.0¢/kWh for the market value of generation and 2.2¢/kWh for SCC, for a total of 8.2¢/kWh. Industrial customers would pay 4.8¢/kWh and commercial customers would continue to pay 7.0¢/kWh. While arguably more precise, the result of this approach is some shifting of cost recovery between classes. The rate design would be the same as in the immediately preceding discussion.

A third approach sometimes mentioned is collection of the SCC on a uniform amount per kilowatthour basis. In our example, this would imply 1.8¢/kWh from all customer classes. While admittedly simple, the per kilowatthour approach to collection does not necessarily recognize the

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[30] A different assumption about the mix of customer classes could be made, but it would just complicate the example without adding to its illustrative value.

[31] Or vice-versa.

existing differences in cost of service already reflected in the rates charged to the different customer classes, or differences in existing rate structures. It also produces shifts in revenue collection among customer classes and between customers within each class, just as in the preceding example.

A fourth approach is suggested by those economists who argue that the SCC is really designed to recover sunk costs, and therefore the recovery mechanism should not be sensitive to customer consumption levels, but instead, should be in the nature of a fixed charge which does not vary with the level of the customers' purchases. This leads to the idea that the SCC could be imposed on a per customer basis (or other fixed basis--such as a demand charge), either uniformly across all customer classes, or on a basis which varies by customer class to recognize differences in size. Whatever the form, the imposition of SCC charges on a per customer basis will result in the shifting of cost recovery relative to current tariffs.

B. Basis of Application

The second level of consideration for stranded cost recovery is the basis of application. In the early days of the discussion of open access, many commenters referred to a concept of "exit fees," which would be charges applied to customers who decided to choose an alternate generation supplier. The concept of exit fees implied that customers who did not elect alternate suppliers, but instead stayed with their incumbent utilities, were not paying anything toward stranded cost recovery.

On further consideration, it became clear that customers who continued to purchase from the incumbent utility at regulated rates were in fact paying rates that contributed to the recovery of stranded costs, because the tariff rates were above market prices. Accordingly, the discussions have shifted toward the concept of a "non-bypassable" wires charge, paid both by customers who elect to continue to purchase from their incumbent utility, as well as by customers who elect to purchase from an alternate electric utility supplier. This is a much more accurate description of the process, and recognizes that stranded cost recovery is implicit in the tariff even if an alternate supplier is not selected. Within each customer class, a cost-based approach would recover the non-bypassable charge based on some combination of demand charges and energy charges applied to the customers' level of electricity usage. The theoretically economic approach, which is designed to not distort consumption decisions, would apply the collection mechanism within each class on some form of customer or other fixed charge basis.

Customer consumption levels can and will change over time for a variety of reasons. A residential customer may add a room in his or her house, may install an air conditioner or other electricity-using appliance, may experience a reduction in use because children move out, may experience a reduction in electricity purchases because of the installation of solar panels or other renewable energy resources, may upgrade insulation, buy a more efficient air conditioner, etc. In addition, year-to-year variations will occur because of changes in weather and economic factors. Commercial and industrial customers may experience changes in consumption levels as a result of a variety of factors, such as weather and economic cycles, as well as the addition of new facilities or the closing of old facilities. Purchased electricity requirements may also change as a result of the installation of solar panels, fuel cells, distributed generation, or even larger scale cogeneration facilities.

The question relevant to stranded cost recovery is the level of consumption to which the SCC charges should be applied. Some would argue that it should apply to historic consumption levels because the generation facilities for which SCC recovery is permitted were, it is argued, built to serve historic consumption. This logic also would argue for exempting new load and new customers from any payment of SCC, since the facilities giving rise to SCC, according to this theory, were not built to serve these new loads. This approach raises substantial equity questions, particularly in situations where an existing industry installing generation facilities would be required to pay SCC on historic usage, but a new competitor located in the service territory would be completely exempted from any SCC charges.

An argument for applying SCCs to current consumption only is that all customers have always been required to support the cost of the system as it exists, in proportion to their current consumption (unless they have contracted for a different arrangement), and that vintage pricing which treats customers differently depending upon when they attach to the system has never been implemented. Another argument is that many of the factors which cause a change in consumption have nothing to do with the opportunity to utilize the incumbent utility's transmission and distribution lines in order to purchase power from another electric utility. For example, economic downturns and the right to increase or decrease the level of consumption because of a change in factory output are circumstances that have always existed, and the right to choose a different electricity supplier should not affect how these changes translate into power cost. Also frequently cited is the fact that customers have always had the opportunity to install cogeneration, renewable

resources and other on-site generation resources, and that there is nothing about customer choice of an off-site electricity supplier that has affected these customer options.

C. Conclusion

There are strongly held views of all sides of both dimensions of the collection issue. In deciding what is appropriate, consideration should be given to a number of factors, including the potential impact of cost-shifting between and among customers and customer classes, adherence to cost of service principles, the impact on the development of alternative resources, impacts on the use of energy efficiency measures, and the effect on economic development.

Appendix D

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Appendix C

Decisions in Other Jurisdictions

This Appendix briefly outlines the main features of stranded cost recovery decisions in key states that have addressed this issue.

CALIFORNIA

Stranded cost recovery will be granted for above market costs associated with generating assets, nuclear plant settlements, purchased power contracts and regulatory obligations (including nuclear decommissioning.) Costs associated with retraining and early retirement of employees will also be considered as recoverable transition costs. Recovery of these costs was deemed appropriate due to past regulatory policies and past Commission decisions that have created many of these costs. The stranded costs will be collected through a non-bypassable end-user surcharge (competitive transition charge), calculated as a percentage of the dollar amount of each customer bill. The CTC will be allocated to all customer classes in the same approximate proportion that similar costs are being recovered as of June 1996. Any shortfall in recovery from industrial and large commercial customer classes will not be charged to residential and small commercial classes, or vice versa. Utilities generally will not be allowed to recover stranded costs past 2001, though exceptions are granted for long-term contracts and certain other types of potential stranded costs.

Market methods of calculation are to be employed as much as possible, with administrative methods used up to the point in which the market method can be put in place. Prior to market valuation, stranded costs are to be calculated annually. All generation plants must be measured against the market within five years for stranded cost valuation purposes. Market methods include sale or spin-off of assets, as well as use of appraisals by independent third parties.

Divestiture of generating assets is encouraged. The general rule is that the return on equity to be applied to stranded cost assets is to be 90% of the utility's cost of debt. The 10% discount will be eliminated if the utility divests at least 50% of its generating assets. A further 10 basis point increase in ROE will be given to utilities for every additional 10% increase in the amount of generating plants disposed of through sale or spin-off. Utilities can retain 10% of the savings associated with renegotiation of long-term contracts. A utility's accumulated deferred income tax balance will be offset against its stranded cost amount.

Securitization of stranded costs is allowed if such financing will benefit residential and small commercial customers through rate reductions. Securitization bonds will continue to be paid off in full after 2001, notwithstanding any other restrictions on the timing of stranded cost collection.

Companies are not guaranteed full recovery of their stranded costs. The lower risk associated with assets for which stranded cost recovery is granted justifies a lower return on equity. Rates (including fuel adjustment) are frozen and utilities are at risk for recovery of allowed balances. The portion of stranded cost recovery to be securitized will provide for a 10% rate reduction in 1998. Further, it is the intent of the Legislature that a cumulative rate reduction of 20% be applied by 2002, not counting competitively procured generation costs and securitization costs.

Source: CPUC Decision 95-12-063, December 20, 1995, as modified by Decision 96-01-009, January 10, 1996; Assembly Bill 1890, signed September 1996.

ILLINOIS

Stranded cost recovery in the form of a "transition charge" will be allowed. The legislation states that Illinois has an interest in providing utilities the opportunity to earn a return on investments made pursuant to traditional regulation. Recovery of stranded costs will be allowed through 2006, though an extension to 2008 can be considered by the Commission based on these four factors: the need to maintain the financial integrity of the utility, the prudence of the utility's actions to reduce costs, the ability of the utility to provide reliable service, and the impact on competition.

The method for calculating the transition charge will be a "lost revenues" approach, based on the average level of revenues received from the departing customer over the previous three years. The "lost revenues" calculation will be offset by the amount of revenue for delivery services received from the customer, the market value of the foregone power formerly used by the customer, and a "mitigation factor" that is a surrogate for new revenue sources and cost efficiencies that utilities should try to achieve in a competitive environment. The mitigation factor will be calculated at between 6-10% of residential customers' bills over a period of time for residential customers (different percentages are to be used for other customer classes).

The market value of power component of the transition cost calculations will be determined through reliance on electricity price indices, or if such indices are not available, by review of a "neutral fact finder." The neutral fact finder will be a member of the public accounting industry, and

will make an annual report to the Illinois Commission as to their findings. A new neutral fact finder will be selected every year.

Securitization will be allowed up to 50% of a utility's capitalization, but 80% of securitization proceeds must be used to refinance debt or repurchase equity, with the remainder available for other purposes, such as retiring fuel obligations, including spent nuclear fuel.

Rate reductions of between 2% to 15% are mandated, depending upon the particular utility and their current rate levels.

Source: Amended House Bill 362, "Electric Service Transition and Customer Choice," signed December 1997.

MAINE

Utilities should be given a reasonable opportunity to recover legitimate, verifiable and unmitigatable stranded costs, but not a better (or worse) opportunity than that offered under traditional regulation. Principles similar to the "regulatory compact" have long been recognized in Maine court decisions. Recoverable categories of stranded costs are generating assets, long-term contracts and regulatory assets. Nuclear decommissioning costs are not part of stranded costs, but will continue to be collected through transmission and distribution rates. Stranded cost amounts will also be collected through transmission and distribution rates, not through exit fees.

Retail access for all customers is to be in place by March 2000. Prior to that time, the Commission will establish interim estimates of stranded costs. In 2003 and every three years thereafter, the Commission will correct substantial inaccuracies in the stranded cost calculations, but on a prospective basis only. An asset-based calculation method is to be used, not one based on lost revenues. Market information is to be used to the greatest extent possible, including, but not limited to, valuations from sale of generating assets and rights to power under contract.

By March 2000, each investor-owned utility is required to divest its generating assets, except for nuclear facilities, contracts with Qualified Facilities, facilities outside the U.S., and facilities necessary for operation as a transmission and distribution utility. After January 2009, the Commission may require divestiture of the Maine Yankee nuclear unit. After February 2000, the utilities are also to sell capacity and energy rights associated with long-term contracts that were not divested earlier. Utilities can seek extensions for the divestiture requirement, if it can be demonstrated that the sale value of assets are likely to improve as a result of the extension.

Utilities are to use all reasonable mitigation methods to reduce stranded costs, and are to assume a reasonable level of mitigation in estimating stranded costs. Incentives to mitigate stranded costs include possible use of price caps and sharing of savings associated with mitigation efforts. The Commission may consider the level of a utility's mitigation efforts in making its stranded cost recovery findings.

While there is no legal requirement that utilities recover 100% of stranded costs, the Commission does not find any justification to "share" stranded costs between shareholders and ratepayers, as all such costs have been judged as prudent in the past.

Source: MPUC Docket No. 95-462, December 31, 1996; H.P. 1274 - L.D. 1804, "An Act to Restructure the State's Electric Utility Industry," signed May 1997.

MARYLAND

The Commission will allow recovery of verifiable, prudent and fully mitigated stranded costs. Utilities are to make filings by March 1998 concerning their stranded cost and mitigation estimates, the period of proposed recovery and collection mechanism. If a utility seeks securitization treatment of stranded costs, it should demonstrate the existence of benefits to residential and small commercial customers by such an approach.

The Commission will make its determinations concerning stranded cost categories, quantification methods and possible sharing of stranded costs at a later time.

A rate cap will be imposed from April 1999 to April 2001. The rate cap will be inclusive of any stranded cost charge that is allowed during that time frame.

Source: MPSC Case No. 8738, December 3, 1997.

MASSACHUSETTS

Utilities should have a reasonable opportunity to recover nonmitigatable stranded costs if no rate increase results. Recoverable costs include generating assets, long-term purchased power agreements, nuclear entitlements and regulatory assets. Certain employee-related costs (severance payments, retraining) can be included in stranded cost requests as well. Collection of all stranded costs is to be through a non-bypassable mechanism.

While there is no explicit regulatory compact (no promise to protect shareholders against the risk of regulatory change), stranded cost recovery is justified because of need to honor existing regulatory commitments and maintain the faith of the financial community.

No fixed time period is set for recovery of stranded costs, but should generally be assumed to be over the life of the generating asset, power contract or regulatory asset. All utilities receiving stranded cost recovery are to receive a comprehensive audit of claimed stranded cost categories first.

Only utilities that sell their non-nuclear generating assets or transfer them to an affiliated company may receive 100% stranded cost recovery. Transfer of assets to an affiliated company will be valued at highest price per kW resulting from a New England asset sale transaction. If a utility does not divest generation, the Commission is to use a market valuation for determining its stranded costs. Companies using administrative methods should reflect assumptions as to the likely expectations of a successful bidder as to the operating costs and marketing potential associated with a divested facility. Mitigation measures should include asset sales, energy sales, renegotiation of purchased power obligations and voluntary write-offs. Mitigation of stranded costs is essential to allowing customers their fair share of benefits from electric restructuring. The return allowed on stranded cost assets will be inversely related with the magnitude of these costs.

Securitization will only be authorized for those utilities divesting their non-nuclear generation.

A 10% rate reduction is mandated for 1998, with another 5% reduction to occur in the following year.

The stranded cost balance should be reconciled every 18 months after March 2000. If it is determined that the utility has overrecovered stranded costs, then credits are to be issued to customers.

Source: D.P.U. 96-100, Model Rules and Legislative Proposal, December 30, 1996; "Act Relative to Restructuring the Electric Utility Industry in the Commonwealth," passed November 1997.

MICHIGAN

Stranded cost recovery is approved for prudent past costs. The existence of mutual obligations between a utility and its customers, similar to a "regulatory compact" is noted. Regulatory assets, capital costs of nuclear facilities, capacity components of power purchase agreements, employee retraining costs and costs to set up a direct access system are the categories of potential stranded costs to be considered.

The uncertainty of the future market price of electricity and the level of mitigation by utilities makes true-ups of stranded costs essential.

The initial groups of customers receiving retail access (2-1/2% of total customers) will be chosen through a bidding process by which the customer indicates the amount they are willing to pay as a transition (stranded cost) charge. The highest bidding customers will be chosen. By 2002, all customers are to pay the same cost based transition charge.

While securitization may be a desirable means to ensure that all customers receive rate decreases under a new regulatory regime, no decision on the use of securitization of stranded costs will be made until the legislature has a chance to address the issue and certain related tax questions are resolved.

No other specific stranded cost matters were addressed by the Michigan Commission in its initial restructuring order. In a subsequent order, the Commission ruled that actual percentages of customers leaving the incumbent utilities' systems, the actual transition costs collected by the utility through the previously discussed bidding process, and the actual market prices paid by retail access customers should be used to true-up stranded cost collections, as opposed to use of what it viewed as "market price proxies." Also, Consumers Energy's proposed "capacity auction" method of quantifying stranded costs was rejected.

Sources: MPSC Case No. U-11290, June 5, 1997; MPSC Case No. U-11454, October 29, 1997.

MONTANA

Stranded cost recovery should be allowed for QF contracts, regulatory assets and (for four years only) generating assets and long-term contracts. Reasonable mitigation efforts are required. Recovery is to be through a non-bypassable charge to all customers.

A two-year rate moratorium will be applied beginning in July 1998 (certain exceptions are granted to this requirement).

Transition (securitization) bonds may be issued, if the savings benefit customers and their term does not exceed 20 years.

Source: Senate Bill 390, "The Montana Electric Utility Industry Restructuring and Consumer Choice Act," effective May 1997.

NEW HAMPSHIRE

Stranded cost recovery is allowed for "net sunk generation costs not recoverable under retail access." Stranded costs include regulatory assets and nuclear decommissioning, but do not include variable generation costs, employee costs and generation-related deferred tax liabilities. The Commission submitted with its Order a voluminous "Legal Analysis" which stated its belief that utilities are not entitled as a matter of law to full recovery of stranded costs associated with the introduction of competition. Recovery will be accomplished through a user surcharge via the local distribution company.

The sale or spin-off of assets is described as the most accurate way to calculate stranded costs. Neither of these two alternatives is required, but utilities will not be allowed to sell at retail in the service territories of their affiliated distribution companies if they do not divest their generating assets.

Among the methods of mitigating stranded cost amounts addressed in the Order are sale or spin-off of assets, voluntary write-downs, securitization, and others. The PUC recommends the legislature proceed cautiously with securitization initiatives, as true-ups of stranded costs would be foreclosed by use of this option.

Determination of the amount of stranded cost recovery will be made on a case-by-case basis. Utility management decisions will be reviewed in making this determination. Also, the amount of recovery will be dependent upon the relationship between the utility's rate levels and the average regional rate (the higher the utility's rate above the regional average, the less cost recovery). Full stranded cost recovery may be anti-competitive, in that generating companies could be free to drop their price in a competitive market and suffer no loss if allowed stranded costs.

Note: The Commission's Order on restructuring is not being fully implemented due to a utility's appeal of its stranded cost provisions.

Source: NHPUC Case No. DR-96-50, "Final Plan," February 28, 1997.

NEW JERSEY

Stranded costs directly related to utility power supply will be allowed. This includes generation plants, and long and short-term power contracts with utilities and nonutility generators. Generation-related regulatory assets and nuclear decommissioning will not be considered stranded; they will continue to be collected through distribution rates. The existence of a regulatory compact

is implicitly affirmed, but does not mean 100% recovery of stranded costs is mandated. The collection will be in the form of a "market transition charge," a non-bypassable component of the customer's bill.

The existence and amount of recoverable stranded costs will be determined on a case-by-case basis for utilities. Recovery of stranded costs is to be allowed concurrently with retail access, and should only extend for four to eight years. Utilities are to propose a market valuation method in their stranded cost filings. All reasonable mitigation methods should be employed, such as sale of excess generation capacity, accelerated depreciation, reduced return on uneconomic assets, and buy-out or renegotiation of long-term contracts. Securitization holds promise as being part of the solution to the stranded cost problem, and will be studied further. However, use of securitization will not be the sole source of potential rate reductions. The possible need for asset divestiture to perform an appropriate market valuation will be considered later.

100% recovery of stranded costs is not contemplated, with a cap on overall rate levels the preferred method of allocating costs to shareholders. Also, a 5-10% rate reduction will be mandated concurrent with the start of retail access.

Note: Commission findings on stranded cost issues are not enforceable until legislative approval is received.

Source: "Restructuring the Electric Power Industry in New Jersey," April 30, 1997.

NEW YORK

Stranded cost recovery of prudent, verifiable and nonmitigatable costs is approved in concept, with amounts and timing of recovery to be determined on a case-by-case basis. In making this finding, explicit regulatory compact or mandated prudent investment recovery arguments were rejected. Utilities should have a reasonable opportunity to recover stranded costs, though this opportunity must be balanced with the goals of lowering rates, providing for customer choice, maintaining reliability, and fostering economic development. Recovery is to be through a non-bypassable distribution charge.

Utilities are encouraged to devise "creative" ways to mitigate stranded costs, including renegotiation of IPP contracts. Generation divestiture is encouraged as a way to mitigate market power concerns, but is not required. (In subsequent case-by-case settlements, utilities have agreed to divest a certain percentage of their generating assets.)

Rate caps are an appropriate tool to prevent cost shifting associated with stranded cost recovery.

Source: NYPSC Opinion No. 96-12, May 20, 1996.

OKLAHOMA

Legislation directed that procedures be developed to identify, quantify and recover prudent, verifiable and unmitigated stranded costs. No increase in rates will be permitted as a result of stranded cost recovery. Recovery will be over a period from three to seven years.

The Commission will consider use of a distribution access fee to recover stranded costs. No further policy decisions were made on stranded costs in the legislation.

Source: "Electric Restructuring Act of 1997," signed April 1997.

PENNSYLVANIA

Recovery of known and measurable net generation-related stranded costs is allowed, after mitigation. Existence of a regulatory compact concept is implicitly agreed to. However, a utility must demonstrate that it has undertaken substantial mitigation, and the Commission must find that the amount allowed for recovery is "just and reasonable." Recovery of stranded costs is to be through a non-bypassable charge on customers accessing the transmission or distribution networks. Recovery of stranded costs shall not result in shifts of class revenue requirement. Stranded cost recovery is to be granted related to new self-generation initiatives.

The types of costs to be potentially considered as stranded include: generating assets, long-term purchase power commitments, renegotiation of NUG contracts, regulatory assets and decommissioning costs, disposal of spent nuclear fuel, and employee retraining and early retirement costs.

Recovery of stranded costs can begin prior to retail competition (as early as the effective date of the legislation). Though some flexibility is granted to the Commission in regard to the endpoint of recovery, in general the legislation cuts off recovery nine years after the legislation becomes law.

No specific methodology for calculating stranded costs is prescribed in the law. Nor are any specific mitigation techniques required, though the approaches of accelerated depreciation and amortization, minimization of new capital spending, reallocation of depreciation reserves, sale of idle or underutilized existing generation assets, maximization of market revenues, and issuance of securitized debt are options listed in the legislation. Divestiture of generating units is allowed, but

not required. The law calls for annual reconciliations of actual stranded costs and the amount collected in rates.

Securitization is allowed for stranded costs, up to limits to be set by the Commission. Utilities can seek expedited treatment from the Commission for securitization requests. There is to be a rate cap on customer bills for up to 54 months after the legislation passes (or until stranded costs have been collected in entirety). Certain exceptions are granted to the rate cap requirement, concerning the need for possible extraordinary rate relief and other factors.

Source: House Bill 1509, signed December 1996.

RHODE ISLAND

The statute states that utilities should have a reasonable opportunity to recover costs prudently incurred in relation to the past legal obligation to provide service at reasonable costs. Types of stranded costs include regulatory assets, nuclear decommissioning, purchased power contracts and generating plants. These amounts will be collected through a non-bypassable transition charge.

Stranded costs may be recovered through the year 2009. From July 1997 to December 2000, the transition charge will be valued at $.028/kWh. After 2000, the amount authorized will be sufficient to recover the remaining authorized costs reflecting a true-up of the amounts already collected. The equity return on unrecovered generation plant and regulatory asset stranded costs will be set at one percentage point above the prevailing debt rate for BBB long-term bonds.

All power suppliers receiving stranded costs must put on the market at least 15% of their non-nuclear generating facilities. Utilities can retain 10% of the savings from renegotiation or buy-out of long-term power contracts. To mitigate stranded costs, and prevent residential customers from paying higher rates as a result of competition, all distribution companies will have a performance-based rate plan in place by the end of 1998.

Source: "Rhode Island Utility Restructuring Act of 1996," enacted August 1996.