CHAPTER 4

STRANDED COSTS

Introduction

One of the most difficult and controversial aspects of electric industry restructuring involves the determination and treatment of stranded costs and stranded margins. Stranded costs and margins represent losses and gains in the economic value of existing generation-related utility assets and contracts which would result from a restructured industry. These changes in the economic value of assets are directly attributable to the differences between cost-based rates and competitively determined electricity prices. Stranded costs will occur when market prices are below regulated rates. On the other hand, when market prices exceed regulated rates, stranded margins will result.

In a nutshell, stranded costs and margins may be described as potential wealth transfers between utility investors and utility consumers which result from changing the rules of the game. This issue is more prominent in the current electric industry restructuring debate than in the historical deregulation of other industries due to the size and capital intensity of the industry, the long economic life of electric generation assets, and the potential impacts of financial disruptions on the interconnected grid. The public policy challenge is to determine how much, if any, of this wealth transfer should be allowed to occur.

Perspective

Nationally, the major focus of the wealth transfer debate has centered on the stranded costs exposure of utilities, or the potential transfer of wealth from utility investors to utility consumers. This is understandable given national estimates of utility stranded cost exposure, ranging from under $50 billion to over $500 billion. Generally, $100 billion to $200 billion is considered to be the more reasonable range of estimates at the current time. Certainly, potential losses of this magnitude could threaten the financial viability of many utilities. In fact, total industry equity is less than $200 billion.

The issue of stranded costs is also significant in Virginia, where the largest electricity provider may face the greatest stranded cost exposure among utilities operating in the State. However, Virginia is also served by several low cost utilities that could have stranded margins, which may be viewed as a potential wealth transfer from consumers to utility investors. Therefore, the Staff believes it is important that public policy makers in Virginia give due consideration to the implications and appropriate treatment of potential stranded margins as well as stranded costs. Conceptually, the Staff views stranded costs and stranded margins as symmetrical issues. If consumers are required to pay for historical investments made on their behalf, they should be entitled to the economic benefits arising from historical investments for which they have paid. This is not an issue of asset ownership; rather, it is an issue of economic equity.

Although transitional in nature, the public policy decision with respect to the appropriate treatment of stranded costs and margins is complex because of differing perspectives on issues of equity and practicality, as well as the sizable moneys involved. This complexity is greatly exacerbated due to the likely difficulty of policy implementation, including the determination of stranded costs and margins. Estimates of stranded costs and margins are dynamic in nature since they are a function of long-term market price projections and embedded costs. Significant, but unknown, future events could dramatically impact market prices and, therefore, actual stranded costs or margins.

The Staff has not attempted to project stranded costs or margins at this time. In fact, the Staff has little confidence that accurate estimates can currently be developed. However, as suggested previously, there are significant retail rate and underlying cost differences among the utilities serving Virginia. Therefore, it is quite possible that some of these utilities will have stranded costs while others will have stranded margins. It should be noted that each utility will have individual assets or contracts that will increase in value and other investments that will decline in value with retail competition. Consequently, it is the net change in the value of the utility's total asset portfolio that determines the existence of stranded costs or stranded margins.

In contemplation of public policy, it is important to understand why some Virginia utilities face stranded cost exposure. Such an examination should be conducted with two key points in mind. First, several discussions of stranded cost exposure in publications[26] addressing electric industry restructuring imply that the existence of any stranded cost for a utility is directly attributable to that utility's inefficiency or imprudence. If this were the case, the public policy decision with respect to the treatment of stranded costs would be simple -- there should be no recovery of such costs. However, while utility inefficiency or imprudence may increase stranded costs or reduce stranded margins, the mere existence of potential stranded costs does not necessarily confirm that such inefficiency exists.

There are many legitimate reasons that the rates and underlying costs of utilities differ. Utilities have enjoyed the benefits of exclusive service territory franchises, but, were also captive to the demands and limitations of those service territories. In fulfilling the obligation to provide adequate service to all consumers, the service territory location and load characteristics have had a significant impact on the costs and rates of the franchised utility. For example, proximity to fuel supplies, availability of transmission capacity, federal and state requirements, and timing and size of load growth have greatly impacted Virginia utilities' historical selection and cost of generating capacity.

Not surprisingly, the cost and rates of those utilities with more recent and substantially undepreciated generation investments, and those located in territories further removed from coal supplies, tend to be higher than utilities which have not needed to add new capacity and have largely depreciated plants located near coal reserves. Obviously, appropriate questions for both groups of utilities in considering potential stranded cost or margin recovery treatment are: 1) whether utility management made prudent decisions with respect to available capacity alternatives at the time new investment was required and 2) whether the utility procured and is operating such capacity efficiently.

The second critical point in understanding estimated stranded cost exposure is that virtually all of today's projected market prices of electricity reflect a depressed market due to the belief that current levels of industry capacity reserves are excessive and reflect a less than optimal capacity mix. This assumed demand-supply imbalance results in projected market prices, at least in the near term, which approach variable production costs and provide a very low value for capacity. Such prices are substantially below the total production cost of the most efficient new gas-fired generating units even when assuming the availability of low-cost gas supplies and low-cost utility financing. These projections of depressed market prices significantly increase estimates of stranded costs and reduce estimates of stranded margins from what such estimates would be if the market were assumed to be in equilibrium. Therefore, much of the difference between projected market prices and regulated prices, and the resulting stranded cost exposure, is not attributable to anticipated production cost efficiency gains in a competitive market, but rather to relatively short-term market allocation efficiencies driven by the assumed supply-demand imbalance.

Further, as electrical demand grows and reserve margins diminish, market prices should increase toward the long-term market equilibrium price, which theoretically should approach the average total

production cost of new generation capacity. Therefore, with each year's delay in the implementation of retail wheeling, as market prices increase and additional generation plant is depreciated, potential stranded cost exposure should decrease.

Overview of Virginia

In Virginia, it appears that among the investor-owned utilities, Virginia Power faces the largest potential for stranded cost exposure. The good news is that Virginia Power's older depreciated fossil fuel generating plants appear to more than offset the higher cost of new Company-built plants, such as the Clover station. Also, the Company's North Anna and Surry nuclear stations are consistently among the lowest total production cost nuclear facilities in the country. However, while its own generating assets do not seem to pose a significant problem, the capacity costs of the Company's numerous long-term purchased power contracts with non-utility generators ("NUGs") are substantially above current projections of the market price for capacity, and likely above today's total cost of new capacity.

These NUG contracts, roughly 20 percent of the Company's installed capacity, were executed largely during the mid to late 1980s and have a similar cost effect on the utility as undepreciated new generating units. This was a period of exceptional load growth along the golden crescent, especially in the Northern Virginia and Tidewater areas of Virginia. During that time, many interested parties, including the Staff and the Virginia Committee For Fair Utility Rates, were concerned about the adequacy of Virginia Power's reserve margin and urged investment in additional capacity. This period was also subsequent to the passage of PURPA, which placed an obligation on utilities to purchase power from qualifying facilities at avoided cost.

However, it is not fully clear how much of the purchased capacity was driven by this federal statutory requirement as opposed to Virginia Power's strategic preference favoring contractual purchase of new capacity over utility construction and ownership of such capacity. At the time, Virginia Power was clearly and publicly promoting the virtues of its capacity purchase program to the financial community. In any event, Virginia Power should not be allowed and cannot reasonably expect to be absolved from all responsibility for the results of management's strategic decisions.

The full history underlying the procurement and pricing of the NUG contracts is complicated and beyond the scope of this report; but, it should be noted that in the current proceeding established to investigate Virginia Power's proposed alternative regulatory plan, Case No. PUE960296, the Commission has directed Virginia Power and the NUGs to work together to develop proposals to significantly reduce the current and potential rate impacts of any uneconomic costs associated with the contracts. Depending in part on the success of Virginia Power and the NUGs in responding to this directive, the cost recovery treatment of several of these contracts may be subject to increased levels of scrutiny in proceedings before the Commission, including the current one.

A huge unanswered question with respect to Virginia Power and its stranded cost exposure is the potential ability of the Company to influence prices in a deregulated generation market. The Company controls the vast majority of generation capacity within its control area which has a peak load of 15,000 MW and transmission import capability of only 3,000 MW to 4000 MW. As with other utilities, an associated issue is the impact of Company controlled must-run units required for system voltage support. Concerns regarding the potential for anti-competitive market pricing influence is discussed more thoroughly in the *Market Power* chapter of this report.

The fixed cost of the generation assets of other investor owned utilities such as AEP-VA, Kentucky Utilities, and APS are relatively low. These utilities have added relatively little generation capacity in

recent years due to plentiful capacity reserves. Therefore, existing plants are substantially depreciated and many are located in or close to coal fields. Some of these utilities may actually have net stranded margins, or minimal stranded costs at most. On the other hand, significant environmental legislation could have a major and disproportionate impact, since these utilities have mostly older coal-fired generating units.

The current condition of Delmarva Power is more difficult to assess. Its fossil-fired generating units are old and largely depreciated, but it owns a small percentage of two nuclear plants. The Salem nuclear plant has recently experienced extended operating problems. However, the Company operates as part of the PJM power pool which has several high cost producers. Additionally, the pool has limited import capability because of regional transmission constraints. As a result, the impact of competitive price pressures from lower cost regions may be significantly reduced.

ODEC-member cooperatives may face significant potential stranded cost exposure, largely due to their ownership shares in the North Anna Nuclear Power Station and the new undepreciated coal-fired Clover Power Station. These generating unit investments represent approximately 40 percent of the Cooperatives' total capacity needs. The remaining capacity is provided through a variety of contracts. All of these contracts expire by 2004 and should have limited impact on potential stranded cost. In that the consumers and owners of cooperatives are one and the same, any alternative, other than full stranded cost recovery, could result in the possible dissolution of the cooperatives.

There are sixteen municipalities providing electric service in Virginia which are not subject to the Commission's regulatory jurisdiction. While these municipalities own and operate peaking generation facilities, the bulk of their power supply is provided through wholesale contracts. Current contracts, some at relatively low prices, expire no later than 2005. Therefore, to the extent the municipals have any stranded cost exposure, it appears limited in duration. Additionally, Staff is not aware of restrictions preventing these municipalities from charging distribution rates as desired to recover any stranded cost. Of course, this may also raise the issue regarding the ability of these municipalities to frustrate legislative efforts to provide customer choice to their consumers.

Utilities which own nuclear facilities face the risk of future, but currently unknown, stranded cost. Such risks include catastrophic operational or regulatory events as well as uncertainty with respect to the costs of nuclear fuel disposal and plant decommissioning. Because these nuclear risks may be accompanied by past, current, and future public safety and national energy policy issues, associated stranded costs may deserve special treatment.

All investor-owned utilities have regulatory assets, which theoretically lose value in a competitive market. These assets generally represent a regulatory promise for the future recovery of historical costs which, in some instances, provided past benefits to ratepayers. A significant portion of these assets appear related to the historical implementation of financial accounting changes with respect to Federal Income Taxes. However, there are a variety of other circumstances giving rise to regulatory assets as well. Therefore, care should be exercised in identifying and evaluating each category of regulatory assets with respect to determining the appropriate stranded cost recovery treatment.

Policy Considerations

There are several arguments of equity, practicality, and law that both support and oppose stranded cost recovery. Advocates supporting utility recovery of stranded cost frequently base their argument on the " regulatory compact or bargain" or the fairness of changing the rules in midstream.[27] The argument suggests that stranded costs, calculated correctly, are sunk investments which the utility made to fulfill

its legal obligation to provide adequate and reliable service to all consumers within its franchised service territory. To allow the consumer to abandon the financial support of investments legally required on behalf of that consumer, in effect transferring this burden to utility investors, is simply unfair. Utility investors have offered large quantities of needed financing to this capital intensive industry and accepted lower, risk-adjusted regulated returns in exchange for more stable earnings as compared to investors in competitive industries. While investors have historically assumed utility management and operational risks, a massive legislated structural change of the industry is not one of risks contemplated or reasonably assigned to such investors.

Practical considerations which may support recovery of stranded costs include: 1) the avoidance of the potential economic and/or electric system reliability disruptions that could result from utility bankruptcy in the absence of such recovery and 2) the avoidance of lengthy legal proceedings by utilities, perhaps involving constitutional issues, that could delay and/or complicate industry restructuring efforts.

Those advocating less than full utility recovery of stranded cost argue that a guarantee for the recovery of and a return on utility investment was not a component of the regulatory compact.[28] To the extent such a compact existed, it involved the exchange of an exclusive service area franchise for the obligation to serve; but, the consumer has never

had the obligation to buy. For access to equity returns, shareholders have explicitly assumed the risk of potential regulatory and statutory reform within the industry.

Further, full stranded cost recovery would not provide an adequate incentive to mitigate stranded costs. Additionally, it is argued that stranded cost recovery impedes the development of competition and delays the realizations of economic benefits associated with a competitive market. These advocates state that such recovery competitively advantages high cost or poorly managed utilities to the detriment of low cost or well managed utilities and promotes a misallocation of economic resources.

From a legal perspective, those advocating full recovery of stranded costs argue that utilities and their investors agreed to bear considerable " incumbent burdens" in exchange for a regulated rate of return and this arrangement represents a regulatory contract. It is argued that the regulatory contract requires that investors be allowed to recoup the full historical cost of their investments, not the replacement cost of their assets. Accordingly, any deregulatory measures failing to recognize historic costs would not only constitute a breach of the regulatory contract but also effectuate a taking without just compensation that could make governments liable for damages resulting from their deregulatory measures. See Sidak, J. Gregory and Spulber, Daniel F., Deregulatory Takings and Breach of the Regulatory Contract, 71 N.Y.U.L. Rev. 851 (1996).

On the other hand, it has also been argued that allowing retail access does not constitute a deregulatory taking because the state does not remove a utility’s ability or opportunity to earn a return on its investment. Commission action and retail competition do not create stranded costs; stranded costs arise from non-competitive rates. A utility may have to adjust its price to compete, however, only an opportunity to earn a return is guaranteed, a price is not. See Baumol, William J. and Merrill, Thomas W., Deregulatory Takings, Breach of the Regulatory Contract, and the Telecommunications Act of 1996, pending publication in N.Y.U.L. Rev.

Conceptually, the Staff finds certain appeal to the logic in the regulatory compact argument supporting at least some level of stranded cost recovery. The public policy objective of electric utility regulation has been to provide adequate and reliable universal electric service at reasonable prices. Without question, the historical competency of management and regulation has varied from utility to utility and state to

state. However, the regulatory compact has been exceptionally successful in fulfilling its objective and producing the world's most reliable and universal electric system at some of the world's lowest prices.[29]

The key components of this compact have included: the exclusive service territory franchise; the obligation of the utility to provide adequate and reliable universal service within such territory at reasonable rates; and, the generally accepted regulatory principle that the utility is entitled to a reasonable opportunity to recover its prudent and necessary investment at a risk-adjusted return. These elements are inextricably interwoven in their support of the public policy objectives.

The reduced investor risk associated with regulated cost-based rates have ensured the critical access by this capital intensive industry to low cost capital markets. In turn, utilities have been able to make the investments necessary to provide reliable universal service at lower total cost. To exact an exorbitant and irreversible penalty on investors, in light of their contribution to this public interest success, by changing the rules subsequent to committed investment, seems inequitable. Those who take a more narrow view of the inclusiveness of the regulatory compact, fail to recognize the broad scope of historical public policy objectives and the essential supporting role of the compact's key elements. However, these principles are embedded in both the Code of Virginia and long-standing Commission policy.

Consequently, from a policy perspective, the Staff believes that these traditional regulatory arrangements do justify stranded costs and margins as one of the legitimate considerations in the balancing of public interests and establishing an orderly transition to a restructured industry. At the same time, the Staff strongly disagrees that the existence of this regulatory compact entitles any utility to a specific " pot-of-dollars" or a guaranteed level of earnings at traditional levels. Such claims logically call in to question asset ownership issues and would perhaps justify public condemnation of assets. If consumers were obligated to fully bear the uneconomic costs of these assets, they should be entitled to all future benefits as well. Of course, virtually every utility insists that it owns these generation assets and will deploy them to investors advantage in a restructured industry. In other words, utilities prefer consumers to bear the costs up-front and shareholders to reap future benefits.

On an even more basic level, full stranded cost recovery, as viewed by utilities seeking such treatment, is in itself inequitable in that such a policy would guarantee that utilities either win or break-even at worst. The reality of "changing the rules", and competition itself for that matter, is that there will be winners and losers. Certainly, this is true with respect to consumers. No one can credibly claim otherwise. The obvious question in attempting to balance the public interests is why should utilities be awarded preferential status. This seems especially relevant in that all of Virginia's investor owned utilities appear to fully support, if not advocate, changing the rules. The same cannot be said of all consumers.

From a practical perspective, the Staff agrees that the public interest would not be served by potentially large disruptions in the financial markets or within the interconnected grid that could accompany utility bankruptcy in the total absence of stranded cost recovery. Further, efforts to deny stranded cost recovery is likely to be met with legal challenges adding to the difficulties of a complex transition.

On the other hand, the Staff shares concerns with respect to creating sufficient incentives for utility mitigation efforts. Additionally, as discussed in the following subsection of this report, the Staff believes that the current perception of excess industry capacity combined with simplistic assumptions of perfectly competitive markets is likely to lead to a substantial overestimation of stranded costs and underestimation of stranded margins. In short, there is a great danger that stranded cost recovery could result in consumers subsidizing the future competitive advantage and profitability of utilities. If stranded

costs are overestimated, consumers could pay utilities to write-down the value of assets from book to market during the recovery period; subsequently, as market prices and asset values increase when supply and demand approach equilibrium, shareholders would pocket the profitability arising from the then undervalued assets.

The Staff believes that while the recovery of some level of stranded costs will likely prolong the full development of a competitive generation market, the public policy purpose of a transition period for major structural change within an industry is to avoid the disorderly and chaotic effects of a flash cut to a new and untested structure. Given the complexity of electric industry restructuring and the essential nature of reliable universal service at reasonable prices, it simply does not make sense to emphasize speed over a cautious, flexible, and deliberative process. The Staff believes that in light of such profound changes and the resulting uncertain but potentially significant public impact, policy should follow a course of evolution rather than revolution. This approach is appropriate with respect to stranded costs and margins as well as other industry restructuring issues.

In light of the foregoing discussion, the Staff generally supports public policy providing an opportunity for some level of utility stranded cost recovery contingent upon utilities making best efforts to foster the development of competitive market structures. However, such policy clearly should not guarantee such recovery or even target annual maintenance of historical earning levels. The objective should be to maintain utility financial viability, not financial prosperity, during the

transition while avoiding consumer subsidies of future utility competitive advantages. The policy should be focused on balancing public interests not on utility entitlements.

For example, stranded cost recovery opportunity may be provided with rate caps and/or initial charges set at levels somewhat lower than estimated stranded costs with periodic reviews and corrections. Such an approach would attempt to ensure sufficient incentives exist for maximum mitigation by the utility and to fully offset future stranded margins beyond the recovery period. In principle and effect, any stranded cost recovery should, at a minimum, be net of any stranded margins, reflect maximum utility mitigation efforts, and be limited to historical, prudent, and necessary utility investment or commitments directly related to the utility's obligation to provide adequate and reliable service.

It should be noted that while no participants in the Commission's Stranded Cost working group advocated an absolute prohibition on stranded cost recovery, some members indicated a preference for limited recovery. For example, additional limitations offered by participants included: to only allow recovery of stranded costs that result from a specific federal or state mandate; to eliminate the return component of stranded costs; and to split stranded costs between shareholders and consumers on a fifty-fifty percentage basis.

When viewed in the context of annual earnings levels during a recovery period, some sharing of stranded costs between investors and consumers should be inherent in the establishment of an appropriate recovery mechanism, even if the objective were full stranded cost recovery. This would be necessary in order to provide adequate mitigation incentives and to capture stranded margins beyond the recovery period.

A sharing concept may have some basis in the Commission's historical treatment of Virginia Power's sunk investment cost in the canceled North Anna and Surry nuclear units. In those cases, recovery of investment from customers was allowed as the Commission did not find that Company's investment was imprudent, but no return component was permitted. On the one hand, the comparison of stranded cost to the sunk investment of the canceled nuclear facilities may be inappropriate in that the canceled nuclear

units were clearly not " used or useful", which distinguished that investment from other utility assets. The assets with which stranded costs are associated are, in fact, functional in the utility's on-going provision of adequate and reliable service. On the other hand, the uneconomic costs associated with those assets is clearly not useful.

Another basis for the sharing concept is the historical stranded cost treatment associated with the unbundling and deregulation of the natural gas business. In that industry restructuring, the majority of stranded costs were associated with long-term gas supply contracts between the producers and the interstate gas pipeline transportation companies at prices significantly above the market price. Under pressures exerted by the market, federal regulators, and litigation, the contracts were mostly bought-out for a few cents on the dollar and these buyout costs were then split between the interstate gas pipeline companies and the local gas distribution companies. In effect, stranded costs were shared among the producers, pipelines, and local distribution companies; although, the local gas distribution companies under State jurisdiction were allowed to pass their share of stranded costs through to consumers. The general approach reflected in the natural gas industry's transition is more important to the issue at hand than the specific arrangements. It reflected an effort to balance the public interests through a sharing of transitional costs among several parties.

As previously indicated, the Staff believes that stranded margins are a symmetrical issue relative to stranded cost. Therefore, the Staff believes that if existing consumers of higher cost utilities should pay for some level of stranded costs resulting from historical investments made out of the utility's obligation to provide adequate and reliable service, consumers of low cost utilities should receive some level of financial benefits associated with the depreciated generation facilities which they have supported in past years.

However, unlike stranded cost recovery which would be largely matched against write-offs and serve to preserve the integrity of utility's current earnings, an accelerated return of stranded margins could severely damage current earnings and do financial harm to the utility. Generally Accepted Accounting Principles do not provide for the "write-up" of asset value; therefore, the return of any anticipated future stranded margins to consumers would directly reduce current period earnings net of income tax effects. From a realistic perspective, perhaps the most that can be done to compensate consumers of utilities with expected stranded margins is to provide for protracted rate protection, such as modest initial rate reductions with freezes or caps.

Policy Implementation Issues

To the extent public policy provides for some recovery level of stranded costs and stranded margins, policy implementation will be extremely complex. As indicated previously, stranded costs and margins are dynamic since they are directly dependent on the future market prices of electricity over the remaining life of the utility's generation-related assets. Any policy implementation which locks-in stranded cost recovery up-front based on projections of long-range market prices for a market structure that does not currently exist may be a recipe for disaster.

The dangers of a one time initial administrative determination of stranded costs and margins should be made evident by Virginia Power's recent alternative regulatory plan filing with the Commission in Case No. PUE960226. In the filing, the Company provides an example stranded cost calculation under a given set of assumptions which reveals an approximate Virginia jurisdictional stranded cost exposure of $2.5 billion. However, a change in projected market prices of fifteen percent up or down could either eliminate or double, respectively, the stranded cost calculation.

While significant future events could certainly drive market prices up or down from current projections, Staff is especially concerned that current estimates of long-term market prices may be biased to the downside, thereby resulting in overestimation of stranded costs or underestimation of stranded margins. First, the Staff believes that there is a natural tendency of long-term projections to be unduly influenced by perceptions of current conditions, in this case the perception of excessive capacity reserves and depressed electricity market prices. Secondly, the economic model upon which most of these market price projections appear to be based is the perfectly competitive model where prices approach marginal costs. This perfectly competitive model assumes that producers are price takers and fails to recognize many of the potential market aberrations that may characterize a competitive electric generation industry. For example, given substantial transmission constraints and the significant percentage of service area generating capacity controlled by the large vertically integrated utilities, the Staff believes it may be naive to assume that all market price influences of these utilities can be fully alleviated within a short period of time. To the extent that large utilities can exert subtle market power influences, prices would tend to be higher than current projections.

Those who disagree with this perspective will point to the low prices currently observed in the wholesale power market. However, although growing, the wholesale market is not a fully developed market. To a large extent, this market is essentially an excess energy market served with available capacity and energy after native load requirements are met. The transactions in this market are generally short-term in nature with few long-term capacity sales. Because of the incremental nature of this market and the lack of an adequate pricing mechanism, purchasers frequently enjoy the benefits of reserves and other ancillary services provided by the local utility with the costs being absorbed by the utility's retail consumers. Further, the generating assets used to serve this market are usually included in retail ratebase, so there is reduced financial pressure to exact significantly higher prices than variable production costs.

Full retail competition would merge the wholesale and retail markets, and undoubtedly result in a market that functions differently than the current wholesale market. This is not to suggest that short-term prices would approach the long-term market equilibrium price reflective of the total average cost of new generation, but that perhaps prices would be higher than current short-term projections which are only slightly higher than incremental variable production costs.

Because of the great uncertainty and significant sums of money involved, the Staff believes that the public interest will best be served initially by a flexible administrative process in which recovery of stranded costs and margins can be monitored and adjusted as new information becomes available. An alternative to administratively calculating stranded costs is to require or encourage the sale of generating assets, thereby allowing the market to directly assess the value of those assets. For example, California is providing incentives which essentially require jurisdictional utilities to sell 50 percent of their fossil fuel generating capacity in order to recover stranded costs. However, in addition to being a rather drastic action for purposes of determining stranded cost, the Staff believes there is significant risk that the short-term bias of the market might undervalue capacity, given the current perceptions of excess capacity. A large amount of generation capacity offered for sale at one time could further exacerbate this effect and result in higher stranded cost than might truly be justified.

The Staff's concerns in this regard are not alleviated by the first national large-scale generating plant sales transaction. Specifically, New England Electric System's (" NEES ") recently announced the sale of non-nuclear generating plants (approximately 4000 MW with a book value of $1.1 billion) to U.S. Generating Company for $1.59 billion, a price well above book value. However, the book value and purchase price of these largely depreciated assets were only $275 per MW and $400 per MW, respectively, well below the cost of a new advanced combined cycle plant. Further, approximately one third of the plant capacity is hydroelectric which, of course, has no fuel expense. It is the Staff's

understanding that most of the other capacity is combined cycle technology. Based on the Staff's limited knowledge of these specific assets, it is not at all clear whether the purchase price reflects the true market value of the plants sold. The point is that even if specific assets are sold above book value, such a sale could result in higher stranded costs than warranted if the sales price is below the true long-term market value. As pointed out previously in this chapter, virtually all utilities will have certain assets with market value in excess of book value.

Irrespective of the Staff's concerns, generating asset divestiture, besides allowing for an objective appraisal of asset value, could become desirable or even necessary in order to prevent vertically integrated utilities from exerting undue market power in a restructured industry. However, it would appear to the Staff that pursuit of such a policy at this point may equate to " burning the bridges behind us." Therefore, while it is appropriate to consider this approach with respect to possible future structural evolution, a commitment may be premature until it becomes very apparent that a competitive generation market can truly function in the public interest. It should also be recognized, that requiring the sale of assets in essence equates to public condemnation and could justify arguments for consumers shouldering all the burden of stranded costs.

In addition to determining the amount and appropriate allocation of stranded costs and margins, policy implementation requires the development of a recovery mechanism and the establishment of a recovery period. While such issues need to be evaluated and determined in light of final policy decisions, at the current time, the Staff tends to favor a non-by-passable wires charge for a recovery mechanism, assuming relatively large sums of stranded costs, as opposed to a one-time exit fee. However, a one-time exit fee may be appropriate if the volume of costs to be recovered is small. Depending upon the specific circumstances, some combination of a wires charge and an exit fee may also be appropriate. This, of course, presumes that Federal policy will not result in the total usurpation of State jurisdiction with respect to any group of retail customers. Specifically, Federal policy regarding delineation of the transmission and distribution functions and associated jurisdictional authority, must leave at least a minimal amount of jurisdiction to the States with respect to each retail customer.

The Staff believes that a wires charge over an extended recovery period with allowance for appropriate corrections or modifications will provide greater flexibility and enhance the probability of achieving public policy objectives. While a short recovery period may allow for the fastest path to retail competition, it could pose the greatest risk for over or under collection of targeted stranded cost levels with little opportunity for a workable monitoring or true-up mechanism. A short

period of time for stranded cost recovery could also result in increased rates and provide a greater impedance to the development of a competitive market in short-run.

A longer transition period would mitigate the impact of stranded costs on rates and could provide a better opportunity to get the numbers right. It would also provide an enhanced opportunity for returning stranded margins to existing ratepayers without severe financial harm to the utility. It may be appropriate to allow for varying lengths of recovery periods among utilities depending upon company-specific circumstances. Of course, an unanswered question, with either a short or long recovery period, is what happens if market prices experience an unanticipated and dramatic change at the end of the period? Does the process start over?

On a final note, securitization of stranded costs is being discussed within the industry as one mechanism for mitigation of stranded costs. In fact, this approach is being pursued in some states which are moving rapidly forward with restructuring efforts, such as California and Pennsylvania. Securitization involves a low-cost trust financing in exchange for the certainty of a stranded cost recovery income stream, with risk reduced by legislation. The financing proceeds are used to mitigate stranded cost, in effect through

lower cost refinancing.

At this time, the Staff believes a major drawback is the necessity of locking-in ratepayers up-front to a legislative required stranded cost payment. There also may be certain unresolved legal issues surrounding this mechanism, some of which may be state specific. While currently not enthusiastic about this option as a general stranded cost mitigation approach, the Staff continues to study securitization and there may be specific and carefully selected circumstances where such a mechanism could provide public benefits. If opportunities arise that involve the securitization concept, the Staff will provide updates to the Commission and the General Assembly.

Conclusions

Policy decisions regarding stranded costs and margins require the determination of the appropriateness of recovery and the objectives of any such recovery. Implementation decisions supporting recovery must address issues including the process by which stranded costs and margins should be determined, allocated, monitored and modified, the specific level of recovery, and the establishment of a recovery mechanism and time period. The General Assembly must decide which of these issues to directly address through legislation and which, if any, should be delegated to the Commission.[30]

The Staff generally supports public policy providing for some recovery level of stranded costs and stranded margins which is aimed at balancing the public interests. Such policy should be guided by an objective of maintaining utility financial viability, not by a utility entitlement perspective targeted at maintaining traditional earning levels. Any stranded cost recovery policy should be provided as an opportunity and not a guarantee. Further, any such recovery, at a minimum, should be net of stranded margins, reflective of maximum utility mitigation efforts, and limited to historical, prudent, and necessary utility investment. Finally, stranded cost recovery should be contingent upon the best efforts of the utility to foster development of appropriate competitive market structures.

In implementing stranded cost policy, the Staff believes the unique circumstances of each jurisdictional utility should be considered in the development of an appropriate stranded cost or stranded benefit recovery mechanism. Initially, Staff supports a flexible administrative process for determining stranded costs and margins which, to the extent practicable, incorporates monitoring and correction mechanisms. The Staff believes that this approach combined with a wires charge recovery mechanism over an extended time period will provide the best opportunity for achieving policy objectives given the uncertainty, complexity, and dynamic nature of stranded costs and margins.

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[26] See Adam D. Thierer, "Electricity Deregulation: Separating Fact From Fiction In The Debate Over Stranded Cost Recovery," Heritage Foundation Talking Points No. 20, The Heritage Foundation, March 11, 1997.

[27] See Daniel William Fessler, "Facts, Fairness and Securitization," Public Utilities Fortnightly, October 1, 1997.

[28] See Kenneth Rose, An Economic and Legal Perspective On Electric Utility Transition Costs, The National Regulatory Research Institute, July, 1996.

[29] Average electricity prices in the United States generally compare favorably to other industrialized nations as represented by the membership of the Organization For Economic Co-operation and Development (International electricity prices are shown in Appendix No. 2, pages 5 and 6). For example, according to the Second Quarter, 1996, Energy Prices and Taxes publication of the International Energy Agency, 1995 average industrial electricity prices in France, the United Kingdom, Germany, and Japan were higher than those in the United States by approximately 28 percent, 45 percent 115 percent, and 294 percent, respectively. Likewise, average 1995 household electricity prices for these same countries were approximately 99 percent, 48 percent, 142 percent, and 220 percent higher, respectively, than prices in the United States. Average 1995 electricity prices in energy rich Mexico and Canada, which has substantial hydroelectric resources, were lower than prices in the United States. However, an examination of electricity prices over the period from 1984 through 1995 indicates an upward trend in Canadian prices and great volatility in Mexican prices, while prices in the United States have remained relatively

stable with a slight increase in household prices and a slight decline in industrial prices.

[30] Appendix No. 3 of this report summarizes the status of restructuring efforts in other states, including stranded cost approaches.