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BEFORE THE ARIZONA CORPORATION COMMISSION

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DOCKET NO. U-0000-94-165

IN THE MATTER OF THE COMPETITION IN THE PROVISION OF ELECTRIC SERVICES THROUGHOUT THE STATE OF ARIZONA.

NOTICE OF FILING OF DIRECT TESTIMONY OF MONA L. PETROCHKO AND DOUGLAS C. NELSON

NOTICE is given that the Electric Competition Coalition (ECC) has filed the direct testimony of Douglas C. Nelson and ECC and Enron Energy Services, Inc. has filed the direct testimony of Mona L. Petrochko.

Please include Michael B. Day on the service list for this evidentiary hearing, as he is acting as co-counsel on behalf of Enron Corporation and Enron Energy Services, Inc.

RESPECTFULLY submitted this 21st day of January, 1998.

DOUGLAS C. NELSON, P.C.

Arizona Corporation Commission
DOCKETED

JAN 21 1998

DOCKETED BY JH

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BEFORE THE ARIZONA CORPORATION COMMISSION

JIM IRVIN
Commissioner-Chairman
RENZ D. JENNINGS
Commissioner
CARL J. KUNASEK
Commissioner

IN THE MATTER OF THE COMPETITION IN THE PROVISION OF ELECTRIC SERVICES THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. U-0000-94-165

DIRECT TESTIMONY OF MONA PETROCHKO

On Behalf of
Enron Energy Services, Inc.

January 21, 1998

TABLE OF CONTENTS

Summary of Ms. Petrochko's Testimony:

Question 3, What costs should be included as part of "stranded costs" and how should those cost be calculated?

Generation assets and regulatory assets are the two primary cost categories that comprise stranded cost calculation. Generation assets include supply contracts through either power purchase agreements or purchases from qualifying facilities (QF's). It also includes long-term commitments for fuel used in generation. Regulatory Assets are costs included on the utility balance sheet for which recovery is deferred under regulatory accounting treatment.

Stranded costs should be determined on a market-based approach. For generation, an asset sale or an appraisal method is preferred. In determining a stranded cost for a regulatory asset, it must first be determined that the asset is stranded as a result of the introduction of competition. Once that determination is made, if there are physical assets where a market value can be determined, then the balance between the recorded value of the asset and the market value will dictate the stranded cost amount. Otherwise, the recorded value of the asset, that is uneconomic as a result of a transition to competition, should be recoverable.

Sub-issue: Provide the recommended calculation methodology and assumptions made including any determination of the market clearing price.

Enron supports 100% recovery of all prudently incurred, unmitigable stranded costs that result from the transition from a regulated environment to a competitive environment. Enron advocates a market-based method which include a competitive-bid sale or auction, an independent third-party appraisal or output contracts. Of these, divestiture is the preferred methodology for calculating stranded costs because it establishes a true value for the asset and encourages a transition to a competitive market. It is equally important that the Commission ensure that meaningful competition coincide with the recovery of stranded costs.

In my testimony, I have identified states which have required divestiture as part of their electric restructuring efforts. I also include an update of the recent utility asset sales that have been transacted.

Question 1, Should the electric competition rules be modified regarding stranded costs, if so, how?

I have identified three areas of the rule that requires a change as they relate to stranded costs. Those changes address: R14-2-1607.A., with regard to the utility's ability to expand the scope of its services for profit; Paragraph H, of the same section, dealing with the recovery of lost revenues as a result of customers obtaining lower rates from the Affected Utility; and Paragraph J, which required stranded costs to be recovered only from customer purchases in the competitive market.

Question 2, When should "affected utilities" be required to make a " stranded cost" filing pursuant to A. A. C. R14-2-1607?

I believe that the utilities should make their filings as quickly as possible after a final order has been issued in this proceeding. A delay in the utilities presenting their stranded cost filings should not delay the beginning of competition on January 1, 1999.

Question 8, Should there be price caps or rate freezes imposed?

I believe a rate cap may be appropriate for a transitional period, not a rate freeze.

Question 4, Should there be a limitation on the time frame over which stranded costs are calculated.

Yes. A limited calculation period provides incentive to the utility to transition to a competitive market.

Question 5, Should there be a limitation on the recovery time frame for stranded costs?

Enron submits that the recovery period should take into consideration the phase-in schedule that provides choice to consumers. In general, I would support a recovery period of <u>three to five</u> years. However, stranded cost recovery should coincide with access to choice. If the existing schedule to provide access remains, recovery of stranded costs will have been essentially completed prior to all customers having access. For this reason, under the existing rules, it may make sense to prolong the recovery period beyond five years. If the phase-in schedule is accelerated, a shorter period would be more appropriate.

Question 6, How and who should pay for stranded costs and who, if anyone, should be excluded from paying for stranded costs?

I support the recommendation by the stranded cost working group that stranded costs should be allocated among customer classes using the same methodology in which the assets were allocated. This would prevent any cost responsibility shift among rate classes. I also support the stranded cost working group's recommendation that rate design for stranded cost recovery should be consistent with rate design for the customer class. The working group recommended stranded cost rate design permit for either a kWh charge, kW charge or an option to pre-pay the stranded cost responsibility. However, the transition charge should not be a residual number based on the clearing price of power but a known, fixed charge.

I support the language in article J of R14-2-1607 which provides for exclusion of stranded cost recovery from self-generators, demand-side management or "other demand reduction attributable to any other cause" other than retail access. In addition, I believe there is a credible argument to exclude interruptible customers from stranded cost recovery associated with generation which was not designed to serve interruptible load.

Question 7, Should there be a true-up mechanism and, if so, how would it operate?

The need for true-ups is obviated under a competitive bid sale or appraisal process except to the extent that the amount approved for stranded cost recovery is in fact the amount recovered in rates. Treatment of excess revenues may need to be addressed by the Commission. The only other true-up which may be necessary is if the Commission decides to true-up stranded cost recovery at the end of the recovery period to ensure that stranded costs have been accurately recovered.

Question 9, What factors should be considered for mitigation of stranded costs?

Enron believes that buy-outs, buy-downs of contracts, divestiture, and efficiency improvements are all acceptable means for mitigating stranded costs. Additional means by which the utility can generate revenue requires careful examination by the Commission.

Sub-issue: What are the implications of the Statement of Financial Accounting Standards No. 71 resulting from the recommended stranded cost calculation and recovery methodology?

In my opinion, in the event of an asset sale, the proceeds from the sale would be credited against any book balance. The difference, if applicable, would be recovered as a regulatory asset from consumers. Stranded costs, which are established by a regulatory body, would be a regulatory asset. Therefore, treatment under SFAS 71 would still be applicable. If the Commission establishes a defined recovery period, any unrecovered balance at the end of that period may need to be written down.

PLEASE STATE YOUR NAME AND BUSINESS ADDRESS:

My name is Mona L. Petrochko, 101 California Street, Suite 1950, San Francisco, California 94111.

BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

I am employed by Enron Corporation as the Director of State Government Affairs. My responsibilities include participating in state regulatory proceedings which address electric restructuring, such as this. In addition, I have responsibility for working with state legislators in introducing legislation to enable electric restructuring. I have specific responsibility for representing Enron in this docket.

ON WHOSE BEHALF DO YOU PRESENT YOUR TESTIMONY TODAY?

I am presenting my testimony on behalf of Enron Energy Service, Inc.

PLEASE DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.

I have a B. S. Degree in Petroleum and Natural Gas Engineering from The Pennsylvania State University. I have attended various conferences on rate design sponsored by the American Gas Association and the Southern Gas Association.

I have been employed by Enron since April 1996. I have held my current position since July 1997. Prior to my current position, I was Manager, State Regulatory Affairs. I represented Enron in Gas Restructuring Proceedings. I have testified before the state commissions of California, New Mexico, Colorado and Montana.

Prior to my employment with Enron, I was employed by San Diego Gas & Electric as a Senior Pricing Analyst from October 1994 through March 1996. My responsibilities included development of gas rates and tariff proposals including marginal cost studies.

From May 1987 until September 1994, I was employed by Elizabethtown Gas Company, Union, New Jersey, in various planning, gas supply and rates positions. During my employment at Elizabethtown Gas, I participated in the preparation of short- and long-term demand and revenue forecasts, reviewed interstate pipeline rate cases and purchased gas adjustments proceedings, ran economic dispatch models, and assisted in the preparation of testimony and supporting studies in gas cost proceedings and rate case preparation.

From December 1984 until February 1987, I was employed by Atlas Energy Group, Coraopolis, Pennsylvania, an independent oil and gas exploration and production company.

HAVE YOU TESTIFIED BEFORE THIS COMMISSION PREVIOUSLY?

No. However, I have provided oral comments to this Commission at the open meeting on November 24 and 25 of 1997.

PLEASE DESCRIBE THE BUSINESS(ES) OF ENRON.

Enron is one of the world's largest integrated natural gas and electricity companies with approximately $23 billion in assets. It operates one of the largest natural gas transmission systems in the world and is the largest marketer of natural gas and electricity in North America. Enron, with its related corportions and affiliates, is a leading participant in liberalized energy markets in the United Kingdom and the Nordic Countries. Enron marktes natural gas liquids worldwide. Enron manages the largest portfolio of fixed-price natural gas risk management contracts in the world. Enron is among the leading entities arranging new capital to the energy industry; owns a majority interest in Enron Oil & Gas Company, one of the largest independent (non-integrated) exploration and production companies in the United States; and owns a majority interest in Enron Global Power & Pipelines L.L.C., the owner and manager of operating power plants and natural gas pipelines around the world. Enron is one of the largest independent developers and producers of electricity in the world. Enron is a major supplier of solar and wind energy worldwide. Enron's internet address is www.enron.com and its common stock is traded under the ticker symbol, "ENE".

WHAT IS THE PURPOSE OF YOUR TESTIMONY?

I am testifying in response to the policy questions contained in the Procedural Order Issued by Chief Hearing Examiner Rudibaugh on December 1, 1997, and amended on December 11, 1997 and January 5, 1998, with regard to stranded costs in Docket No. U-0000-94-165. Enron has a real interest in how the rules for providing competitive service in Arizona are designed. Enron believes very strongly that competition will bring about reduced cost, improved service to Arizonans through innovation and technological advancement. However, the rules for competition must allow competitors to provide these services without unnecessary or excessive financial encumbrance to consumers. Allowing companies to recover in excess of the appropriate level of stranded costs will have a chilling affect on consumers and competitors. The excess cost recovery will diminish otherwise available cost reductions to consumers. In the alternative, a decision to provide less recovery than the prudently-incurred costs may have serious implications on a utility company's financial viability. In addition, the method by which these costs are recovered is equally important in their effect to competition.

Enron supports the Commission's definition of stranded costs. It is extremely important to the development of competition that the Commission, in this proceeding, establish a fair and equitable plan for a transition to a competitive market than permits a reasonable opportunity for the utility to recover these costs from consumers over a reasonable period of time.

3. WHAT COSTS SHOULD BE INCLUDED AS PART OF "STRANDED COSTS" AND HOW SHOULD THOSE COSTS BE CALCULATED?

a. The recommended calculation methodology and assumptions made including any determination of the market clearing price

Stranded costs primarily include two different cost categories:

1. Generating Assets: The physical generating assets as well as power purchase contracts and qualifying-facility (QF) contracts.
2. Regulatory Assets: Assets which have received regulatory recovery treatment which would be unrecoverable in a competitive environment.

I will address the identification, valuation, mitigation and recovery mechanisms of stranded costs in the testimony that follows.

WHAT IS ENRON'S POSITION RELATIVE TO STRANDED COST RECOVERY?

Enron endorses 100% recovery of purdent, verifiable, and mitigated uneconomic or stranded investments. Much of the debate has focused on either 0% or 100% recovery. Enron maintains that the more appropriate question is 100% of *what*? Utilities argue that (1) they were forced to undertake the investment, (2) that the terms of their "regulatory compact" provided them with the exclusive right to serve[1], (3) that their rate of return did not compensate them for competitive risk, and (4) that they have fully mitigated these costs.

Enron's position is that the utilities should recover 100% of the costs which satisfy these criteria. In other words, utilities should be forced to substantiate their own rhetoric. In the alternative, Enron proposes 100% of the stranded costs to the extent utilities divest their generation and merchant business. Stranded cost recovery can be used as an incentive for divestiture. Money received through divestiture could be used as an incentive to offset uneconomic costs and as a measure of the true level of stranded costs.

PLEASE DISCUSS HOW GENERATING ASSETS BECOME STRANDED IN THE TRANSITION FROM A REGULATED ENVIRONMENT TO A COMPETITIVE ENVIRONMENT.

Generating assets, namely plant, have been built to provide adequate power supplies for the affected utility's customers' power and demand requirements.

[1] Cite to Judge Campbell's ruling that there is no regulatory compact and no property right to a monopoly.

Plants are built with projections in growth requirements over a specified period of time. Several technologies are available for producing electricity. Each of these technologies have useful lives of upwards of 40 years. The investment in generating facilities is enormous. These costs can range from several hundreds of millions to billions of dollars. Traditional cost-of-service rate treatment requires a depreciation schedule over the useful life of the plant. The value of the plant is considered to be the book value, or the total investment net of depreciation. The return to shareholders on net value of the asset and a return of the asset is provided through utility rates. This is a simplification of the regulated approach to the value of the plants.

As a result of competition, book values are not necessarily indicative of the value the asset may have on the market. Markets, comprised of willing buyers and sellers, will be determining market prices as opposed to regulatory bodies. The buyer and seller will reach agreement on the value of the electricity based on market conditions. Many factors will determine price in the marketplace.

An asset, or a portion of an asset, becomes stranded when the book value of the asset is more than the market value of the asset. A determination of stranded cost is based on the net difference of all jurisdictional assets. The determination of the market value of the asset is the area of disagreement among members of the Stranded Cost Working Group.

HOW DOES ENRON PROPOSE THE MARKET VALUE OF THE GENERATING ASSETS BE DETERMINED?

Enron advocates a market valuation of stranded assets, as opposed to an administrative approach, where possible. Several market-valuation methods are available. These include: An auction or other competitive bid process, market appraisals and/or the sale of generation output by means of contacts.

WHAT GOALS CAN BE ACHEIVED THROUGH THE PROPER VALUATION AND RECOVERY OF STRANDED COSTS?

There are two overriding goals:

1. Achievement of values used in the determination of stranded costs that are accurate and correctly determined.
2. Recovery of stranded costs in a manner which supports the development and maintenance of a truly competitive market for power.

The first goal is a reflection of simple fairness. Enron supports a fair recovery of stranded costs such that the utility's ability to provide safe and reliable service remains unimpaired. If stranded costs are over- or under-estimated, not only will some company or group benefit at the expense of others, but the restructured market for power supply will be less competitive. If stranded costs are over-estimated, ratepayers will pay more than they should for electric service. If stranded costs are under-estimated, the utility will be unfairly disadvantaged in the new competitive market for power supply.

With regard to the second goal, customers will clearly benefit from policies which support a competitive market place. Freed from traditional regulation, the competitive structure of the marketplace will be the customer's best safeguard and hope for lower rates, better service, and improved product offerings. The Commission's effort to achieve lower customer rates, both now and in the future, will be furthered by the existence of a truly competitive marketplace for power supply. Potential new entrants are certainly best served by a fair competitive marketplace because, to the extent that any supplier receives an unfair advantage, all competitors are harmed. While Enron supports fair recovery of stranded costs by utilities, such recovery should not be permitted to subsidize a utility's competitive position.

WHY IS A MARKET-BASED APPROACH TO EVALUATING THE ASSETS SUPERIOR TO AN ADMINISTRATIVE APPROACH?

There are four reasons why a market-based approach is superior to an administrative approach:

1. It is consistent with the definition of stranded costs in the A. A. C. Rules.
2. It meets the goals described above. It establishes an equitable starting point, whereby the utility receives a fair value for the assets and consumers do not pay more in stranded costs than is justified by the market.
3. It reduces or eliminates the need for subsequent administrative processes or true-ups.
4. The sale of the assets will reduces other concerns, such as the ability of utilities to exert market power through vertical integration.

PLEASE ELABORATE ON THE FOUR AREAS YOU HAVE IDENTIFIED WHICH, IN YOUR OPINION, SUPPORT A MARKET-BASED APPROACH AS SUPERIOR TO AN ADMINISTRATIVE APPROACH.

There are four reasons why a market-based approach is superior to an administrative approach:

1. It is consistent with the definition of stranded costs in the A. A. C. Rules. Rule R14-2-1601.8 defines stranded costs as follows:

   "Stranded Cost means the verifiable net difference between:

   a. The value of all the prudent jurisdictional assets and obligations necessary to furnish electricity (such as generating plants, purchased power contracts, fuel contracts, and regulatory assets), acquired or entered into prior to the adoption of this Article, under traditional regulation of Affected Utilities; and

   b. The **market value** (emphasis added) of those assets and obligations directly attributable to the introduction of competition under this Article."

2. It establishes a level playing field, whereby the utility receives a fair value for the assets and consumers do not pay more in stranded costs than is justified by the market. Other methods, such as the "revenues lost" approach, are costs-based and undermine the transition to competition. Costs-based methods focus are a continuation of regulation because their inherent focus on guaranteed revenue streams; as a result, the market receives unclear or improper price signals. Moreover, without clear price signals and the threat of market discipline, market participants will lack the incentive to deliver effective, efficient and innovative services to consumers.

3. It reduces or eliminates the need for subsequent administrative processes or true-ups. Administrative processes frequently require corrections, often as soon as the ink is dry on the agreement. Customers, thus, may end up paying too much until a true-up is applied. Additionally

4. The sale of the assets reduces the ability of utilities to exert market power through vertical integrated corporate structures.

WHAT PROBLEMS EXIST WITH THE "REVENUES LOST" APPROACH ADVOCATED BY TUSCON ELECTRIC AND ARIZONA PUBLIC SERVICE COMPANIES?

The "revenues lost" approach, compares the revenues that would have been generated by the existing assets under the present regulatory environment with the revenues that are projected to be recovered in the competitive market. Since the difference between these two values forms a basis for the stranded costs to be recovered, it should be clear that utilities would have an obvious incentive to attempt to over-state its revenue requirements while under-stating future market revenues.

When this occurs, customers absorb a disproportionate share of costs. Because the market value of the asset was understated, the asset can then be used to undercut other suppliers who are vying to supply a similar service. In that way, the utility may have created a situation whereby new entrants cannot compete against the utility or its affiliate for customers. Where competition is constrained, so are the opportunities for consumers.

HAVE OTHER COMMISSIONS SUPPORTED AN ASSET SALE, OR DIVESTITURE AS A MEANS OF ESTABLISHING THE MARKET VALUE OF ASSETS?

Yes. Through both legislation and Commission action, divestiture and market-based approaches have been adopted as a legitimate means of determining the value of assets. In addition, many Legislative Bills or Commission actions have further addressed the need to separate the competitive functions from the utility functions.

In its Decision issued on 12/20/95, the California Public Utilities Commission stated that "...a market-based approach to calculating transition costs associated with utility assets will produce superior results to an administrative approach. An administrative approach to valuing utility assets introduces forecasting error and necessarily relies on numerous assumptions that would likely be contested. For example, this approach requires long-term forecasts of market prices and assumptions about existing and future QF obligations, discount rates, capacity factors, and other variables." The Commission has also encouraged voluntary divestiture as possible means of mitigating generation market power.

In Maine, AB 366 states that on or before March 1, 2000, each investor-owned utility shall divest all generation assets and generation-related business activities other than contracts with QF's or demand-side management providers, or generation assets the PUC determines necessary for the utility to perform its transmission and distribution obligations.

In Nevada, AB 396 states that a vertically integrated electric utility shall not provide a potentially competitive service except through an affiliate. The PUC shall establish limitations on ownership, operation, and control of the assets of a provider of an electric service to prevent anti-competitive conduct and ensure the development of effective competition. Such conditions and limitations may include limitations on the ownership operation, and control of transmission facilities and any generation necessary to the reliability and economic operation of such transmission facilities.

In New Hampshire, HB 1392 requires, at a minimum, functional separation of generation from transmission and distribution services. The PUC is authorized to require that distribution and power supply services by provided by separate affiliates.

In Montana, SB 390 provides for a competitive bid sale, third party appraisal, or an estimation of future market values of electricity and ancillary services as acceptable means of determining stranded costs

Finally, the Massachusetts restructuring legislation requires the electric company to divest its non-nuclear generating assets as a condition to receiving stranded cost recovery.[2]

WHAT EXPERIENCE IS AVAILABLE ON THE VALUE OF THE ASSETS IN THE MARKETPLACE?

The initial data indicates that, as markets are developing for retail electricity, sales of generating facilities have commanded a premium price over book value. New

[2] There is an exception for electric companies that own and operate generating facilities in other New England states and who choose to retain ownership of non-nuclear generating facilities in Massachusetts for purposes of "efficiency and local ownership of local generation facilities."

England Electric System (NEES) has received a price for its non-nuclear generation from USGenNE of $1.59 billion, which is 1.45 times NEES' net book value of $1.1 billion.[3]

On November 24, 1997, Southern California Edison was able to achieve a premium of 2.65 times the net book value of 10 gas-fired generating plants, with a combined generating capacity of 7,532 megawatts. The net book value of these plants was $421 million as compared to the sale price of $1.115 billion. The plants were purchased by AES, Houston Industries, a consortium of NRG Eenergy and Destec Energy and Thermo Ecotek.

On November 18, PG&E announced the sale of three power plants to Duke Energy with a combined capacity of 2,645 megawatts for $501 million, a premium of 1.31 times their net book value of about $380 million. The California PUC has approved the sale and the transaction is expected to close on March 31, 1998. PG&E has announced its intention to hold a second auction in 1998 of four generating facilities with a combined generating capacity of 4,718 megawatts.

There are several factors which can explain why these assets are commanding a premium over book value. One assumption is that buyers will be able to unlock hidden value through cost reduction and other expense minimization opportunities. Other buyers believe they will be able to increase sales, secure cheaper financing and/or reduce reliance on transmission capacity to serve congested areas. However, more data will become

[3] Enron has filed testimony before the Massachusetts Department of Public Utilities on issues relative to the sale which may have deflated the value of the assets on the market.

available as more and more companies are considering the sale of their generation assets as they enter the competitive market.[4]

WHAT OTHER COMPANIES HAVE VOLUNTARILY PUT THEIR ASSETS UP FOR SALE?

Portland General Electric (PGE), a wholly-owned subsidiary of Enron Corp., has made a filing before the Oregon Public Utilities Commission on December 1, 1997, to offer retail choice to all of its customers. Included in the filing is a proposal by PGE to voluntary sell its generating assets and power supply contracts through an auction process. PGE believes a market-based approach to valuing their assets will maximize the value of the assets over an administrative approach. It will also remove the incumbent merchant advantage, allowing Energy Service Providers to compete for the role of merchant to all of PGE's 700,000 customers.

Montana Power Company (MPC) announced, on December 9, 1997, its intent to sell off all of its electric generating facilities and its purchased power contracts. With competition scheduled to begin on July 1, 1998 for 1 megawatt customers and above, The Montana Public Service Commission (PSC) is currently in the midst of reviewing the transition plans of the state's investor-owned utilities. MPC is tendering 1,543 megawatts of capacity with a book value of $600 million. MPC expects to complete the sale in 1998. The PSC, per SB 390, cannot order divestiture, but the company may voluntarily divest.

[4] Montana Power Company's announcement to sell all of its generation and power supply contracts. Portland General's December 1, 1997 filing before the Oregon Public Utilities Commission to sell its generation and power supply contracts.

PLEASE PROVIDE AN EXAMPLE OF HOW THE AUCTION OR DIVESTITURE PROCESS WOULD WORK.

In a competitive bid process, the utility provides information relative to the assets that they are prepared to sell. They solicit non-binding bids from interested parties as a means of potentially reducing the field of likely purchasers. Once a smaller field of potential bidders is selected, a second round of binding offers are submitted. From this second round, a "short list" of suppliers is determined. Following negotiations with all acceptable bidders, the winner is declared.

The final terms of the resulting agreement may be subject to Commission approval. The Commission may need to determine the proper treatment for the incremental value of the assets in excess of book. For example, amounts received in excess of book may be retained by the Company, shared with ratepayers or returned to ratepayers. The method by which the amounts are returned to ratepayers may also subject to review by the Commission. For example, ratepayers may receive a one-time credit or have the entire amount refunded over a period of time. The excess revenues may also be used to offset other remaining "stranded costs".

WHICH CHARACTERISTICS, OR OBJECTIVES, OF A STRANDED COST CALCULATION METHODOLOGY WERE IDENTIFIED BY THE PARTICIPANTS OF THE STRANDED COST WORKING GROUP?

As reflected in the Stranded Cost Working Group Report (Report), submitted on September 30, 1997 at 19, the following characteristics were necessary in selecting a calculation methodology:

- It should be reasonable, fair and equitable.
- It should be non-discriminatory.
- It should promote economic efficiency.
- It should provide a reasonable opportunity for the affected utility to recover stranded costs.

DO YOU BELIEVE THAT AN AUCTION/DIVESTITURE/COMPETITIVE-BID SALE WOULD POSESS THE CHARACTERISTICS IDENTIFIED ABOVE?

Yes.

DO YOU AGREE WITH THE REASONS AGAINST DIVESTITURE CONTAINED WITHIN THE STRANDED COST WORKING GROUP REPORT AT 25?

Generally, no. With respect to the first four items identified in the Report at 25, I believe recent experience has shown the value to consumers and the utility in divesting. The preparation costs did not outweigh the value produced by the sale. Certainly the sale did not produce "fire sale" prices. However, if the concern is timing, the utility should have some discretion in the timing of the sale.

With regard to the Commission lacking authority to order asset sales and divestiture, that may true. However, the Commission does have the ability to approve or reject stranded cost recovery mechanisms. As other states have done, this Commission could condition stranded cost recovery with a requirement to divest.

I disagree with the characterization that an asset sale may not provide any better "estimate" of stranded cost.

There are complexities involved with nuclear facilities that may make an asset sale more difficult. Of all of the concerns raised, this appears to be the most legitimate.

Lastly, I would disagree that the new open-access transmission rules, which I am assuming refer to FERC's rules, eliminate any potential for market power abuse in the generation market or in the retail market.

PLEASE DESCRIBE THE ANOTHER APPROACH TO DETERMINE STRANDED COSTS IN THE ABSENCE OF AN ASSET SALE.

To the extent the utility divest to some extent, it may be possible to extrapolate the value of the remaining assets through the experience of the sale. Otherwise, an acceptable alternative to an asset sale would be an independent third party appraisal of the assets. A third-party appraisal should provide an unbiased assessment of the value of the generation. The appraisal would take into account the characteristics of the facility and the current and anticipated market conditions to determine a value for the asset.

WHAT POSITION DOES ENRON TAKE RELATIVE TO RECOVERY OF STRANDED REGULATORY ASSETS AND OTHER COSTS, AS DEFINED IN YOUR TESTIMONY?

Enron believes that regulatory assets should be recoverable if they are stranded as a result of a transition to a competitive market. The asset should not be stranded for regulatory purposes and have value on the market, to the benefit of the utility's unregulated division or affiliate. For example, utility investments in demand-side management or renewable resources may have a market value to consumers interested in those products or services. If regulatory assets are determined to be stranded, they must be directly related to the introduction of competition. If the regulatory asset is associated with a physical asset, then some market-based approach for determining the asset could be used in determining the stranded cost. Otherwise, if the full recorded amount is attributable to a transition to a competitive environment, then it may be appropriate to equivocate the stranded cost amount with the recorded value.

1. SHOULD THE ELECTRIC COMPETITION RULES BE MODIFIED REGARDING STRANDED COSTS, IF SO, HOW?

Enron strongly supports the Commissions definition of stranded costs. However, Enron would recommend modification to the indicated sections of the rule dealing with stranded costs as follows:

R14-2-1607.A. The Affected Utilities shall take every feasible, cost-effective measure to mitigate or offset Stranded Cost. ~~by means such as~~ Expanding wholesale or retail markets, or offering a wider scope of services for profit, among others, **should be provided through its affiliate or unregulated merchant division.**

Enron believes that the utilities have a responsibility to pursue every feasible cost-effective measure to mitigate stranded costs. These measures would include:

a. buy-out or buy-down of any power purchase or qualifying-facility long-term contracts;

b. sale of a facilities at the prevailing market prices,

c. securitization, if done properly, is a means by which to mitigate financing costs for facilities, that are not sold

d. improved efficiencies in operation, maintenance and administrative and general costs.

However, the Commission should take care in encouraging the **utility** to pursue expanding wholesale and retail markets, or offering a wider scope of services for profit. As competition is merely beginning in Arizona, care has to be given that the market has an opportunity to develop. This may be difficult if the incumbents role in the competitive market is unclear. Having the utility performing a dual role as a regulated distribution supplier and the competitive energy services provider can cause great harm to a developing market. Many jurisdictions have recognized the ability of the utility to have a superior position in the market through the use of utility assets, (ie. information, personnel, equipment, etc.) included in jurisdictional rates but used in competitive enterprises. An example of states which have addressed separation of competitive services from regulated services are Maine and Nevada.

It is important to have clear separation as to competitive and regulated functions to avoid the misallocation of costs, confusion in the consumers' minds, and to allow competitors entering the market an opportunity to compete fairly. Enron would encourage this Commission to, at a minimum require functional separation of the transmission, generation, distribution and competitive services of the utility. A preferred option would be for the utility, or the holding company of the utility, to form an unregulated subsidiary. Only through the subsidiary can competitive services be offered while the utility offers regulated distribution services. This permits the utility to expand the list of tariffed distribution services it offers while allowing the unregulated affiliate, or division to pursue expanding wholesale or retail markets beyond the traditional markets.

In addition to separation, the Commission must also address the standard of conduct through which communication and information can be provided between the regulated utility and its unregulated divisions or affiliates. States which have adopted affiliate standards of conduct are New York, New Jersey, Maryland, Wisconsin, Rhode Island, New Mexico and California.

R.14-2-1607 H. An affected Utility shall request Commission approval of distribution charges or other means of recovering unmitigated Stranded Cost from customers who reduce or terminate service from the Affected Utility as a direct result of the competition governed by this Article. **Recovery of lost revenues as a result of discounts to customers** ~~who obtain lower rates~~ from the Affected Utility as a direct result of the competition governed by this Article, **other than the amount established through a stranded cost proceeding, should be subject to either review by the Commission or shareholder risk**.

Enron believes additional clarification is needed with regard to this article. Enron does not argue that a wires charge or distribution charge is a means by which to recover stranded cost, however utility discounting for competitive reasons may be more complicated than is reflected in the rule. For example, if the Commission establishes that the market value of the utilities generation assets is less than the book value, the amount that is stranded is known and recoverable as a distribution or Competitive Transition Charge (CTC). However, the utility may decide to discount its generation below the established market value or may engage in discounting of distribution charges in order to retain customer loads. The Commission should not allow recovery of such discounting as a non-bypassable charge. The Commission must determine whether or not it is appropriate to recover those costs from ratepayers or whether there should be some level of shareholder risk. If that is the Commission's intent, clarification of this language is necessary.

R.14-2-1607.J. Stranded cost **should be identified as a component of all customers rates, regardless of their supplier.**~~may only be recovered from customer purchases made in the competitive market using the provisions of this Article~~. Any reduction in electricity purchases from an Affected Utility resulting from self-generation, demand side management, or other demand reduction attributable to any cause other than the retail access provisions of this Article shall not be used to calculate or recover any Stranded Cost from a consumer.

Enron believes that stranded costs should be recovered from all customers, regardless of whether or not they are receiving service from a competitive supplier. Stranded costs arise when the market value of the utility asset is less, on a net basis, then the net book value. Stranded costs are not attributable to any particular customer group, but are the result in a change from a regulatory environment to a competitive environment. Therefore, all consumers pay stranded costs, even if those costs are identified as a component of the customers' otherwise bundled rate. This will remove the appearance that this charge is a factor to be considered as to whether or not the customer will access competitive services or supplies. The transition charge should not affect the decision of a consumer as to whether to stay with the utility or obtain an alternate supplier. Any rate treatment which distinguishes the recovery of the charge between standard offer or competitive services, runs the risk of influencing the economic decision of the customer.

2. WHEN SHOULD "AFFECTED UTILITIES" BE REQUIRED TO MAKE A "STRANDED COST" FILING PURSUANT TO A. A. C. R14-2-1607?

Enron does not believe the rules specifically address the timing of the "Affected Utilities" stranded cost filing. However, the timing is important if stranded cost recovery is to coincide with the scheduled date of implementation of competition, January 1, 1999.

Enron has a recommendation. The Commission should require a filing by the affected utilities within 30 days of an order in this proceeding in compliance with the determinations in the order. In no event should the lack of a filing inhibit the start of competition on January 1, 1999. In other words, in order to incent the utilities to be responsive and act quickly, competition should begin as contained in the Rules, even if a final determination has not been made on their stranded cost applications. Any actual stranded costs incurred in the interim can either be determined through a subsequent accounting order or, if the Commission determines that a limited period for recovery is appropriate, the recovery period could begin with a final determination in the utility-specific stranded cost proceedings. This will provide an incentive to the utilities to file as quickly as possible and to conclude the stranded cost proceeding as quickly as possible.

8. SHOULD THERE BE PRICE CAPS OR A RATE FREEZE IMPOSED AS PART OF THE DEVELOPMENT OF A STRANDED COST RECOVERY PROGRAM AND IF SO, HOW SHOULD IT BE CALCULATED?

Price caps, as indicated in the stranded cost working group report, may be appropriate to protect consumers from increases in energy rates in excess of their present amounts for a transitional period. This would assume that the costs associated with distribution and transmission service is the same relative to existing levels and only energy prices, including stranded costs, are subject to change. However, price freezes are completely objectionable. A price freeze insulates the consumer from the market price of electricity. A price cap protects consumers from experiencing rates in excess of their current rates, however a price freeze also prevents consumers from realizing any of the benefits of competition through additional savings resulting from lower electricity prices. This freeze prevents competitors from offering price products to consumers, and therefore chills competition.

4. **SHOULD THERE BE A LIMITATION ON THE TIME FRAME OVER WHICH "STRANDED COSTS" ARE CALCULATED?**

Yes. The Commission should designate a time period over which stranded costs can be calculated. This time period could be, for example, the 5-year transition time frame which the Commission has designated to reach full access to competition by 2003.

A limited time frame has appeal for a couple of reasons. It provides an incentive to the utility to transition. The utility cannot continue in its business as usual mode. It will need to determine how it will be profitable as a wires company, and what role its unregulated affiliates will have in providing energy services.

5. SHOULD THERE BE A LIMITATION ON THE RECOVERY TIME FRAME FOR "STRANDED COSTS"?

Yes. Enron submits that the recovery period should take into consideration the phase-in schedule that provides choice to consumers. In general, I would support a recovery period of <u>three to five</u> years. However, stranded cost recovery should coincide with access to choice. If the existing schedule to provide access remains, recovery of stranded costs will have be essentially completed prior to all customers having access. For this reason, under the existing rules, it may make sense to prolong the recovery period beyond five years. If the phase-in schedule is accelerated, a three to five years recovery period would be appropriate.

California, for example, has a four-year transition cost recovery period ending on 1/1/02. Montana Power Company (MPC) has proposed a four-year transition cost recovery period in their transition plan to coincide to end on June 30, 2002, the transition period defined by SB 390. <u>The Pennsylvania PUC Decision in the PECO Transition Plan adopted a three and one-half year recovery period.</u>

6. HOW AND WHO SHOULD PAY FOR STRANDED COSTS AND WHO, IF ANYONE, SHOULD BE EXCLUDED FROM PAYING FOR STRANDED COSTS?

The methodology from allocating stranded costs to consumers should be consistent with the methodology used in allocating the assets to consumers. This will reflect a proportionality of the recovery of stranded costs in relation to the manner in which the assets were originally allocated in rates. This method will prevent shifting of stranded cost responsibility among customer classes.

I support the language in article J of R14-2-1607 which provides for exclusion of stranded cost recovery from self-generators, demand-side management or "other demand reduction attributable to any other cause" other than retail access. In addition, I believe there is a credible argument to exclude interruptible customers from stranded cost recovery associated with generation which was not designed to serve interruptible load.

The manner in which these costs are recovered from the customer classes should be consistent with the existing rate design. This will also prevent cost shifting among customer classes. For example, if rates are currently recovered on a cent per kWh basis, the stranded cost charge should be recovered on the same basis. Likewise, if the rate design includes a fixed or demand charge component, the stranded cost charge should be similarly designed. Enron supports the findings in the stranded cost working group report whereby recovery of stranded costs could include a unit or variable charge, a fixed charge and a prepayment option.

The Commission should adopt a proposal for stranded cost recovery where the amount of the stranded cost charge, to be recovered either on a kWh or kW basis, is known. In other words, the stranded cost charge should not be a residual calculation based on a bundled rate net of distribution, transmission, USBC and a clearing price for generation. This approach impedes competition by making it very difficult for a competitor to determine its costs if the market clearing price is constantly changing. This calculation can be complicated further by pricing changes on fifteen minute intervals, hourly or during congestion periods. The use of either an asset sale or an appraisal provides certainty in stranded cost amounts and charges.

7. SHOULD THERE BE A TRUE-UP MECHANISM AND, IF SO, HOW WOULD IT OPERATE?

Divestiture or appraisal obviates the need for true-ups except to the extent, at the end of the recovery period, the Commission requires a true-up to determine that no more or no less than the actual amount of stranded cost was recovered.

Enron submits that the Commission should strive to seek stranded cost methodologies which eliminate or minimize the need for subsequent administrative review or hearing. To the extent that these issues can be determined it is more beneficial for the competitive market to make a clean determination of the costs and move forward into the market. The one-time determination also provides the market with certainty about what the stranded costs will be. The market can then determine how to provide products and services with that determination made. Further administrative proceedings bring uncertainty into the marketplace as to the value of stranded costs and prolong the connection of regulation into a competitive environment.

9. WHAT FACTORS SHOULD BE CONSIDERED FOR "MITIGATION" OF STRANDED COSTS?

Enron believes the utilities should be required to perform cost-effective mitigation of stranded costs as much as feasible. Enron has identified some ways by which the utility can mitigate its costs in the response to Question 1. I again restate my concern about having the utility directly engage in competitive services as a means by which to expand revenue generation and mitigate stranded costs. The utility should segregate competitive services from regulated services with an enforceable code of conduct. If the utility, on one hand, is recovering stranded costs with a claim that the assets are devalued, and then, on the other hand, is able to extract market value through expanding markets, these positions seems to be in direct conflict. Again, if a market-value approach had been taken in evaluating the assets, this conflict would not arise.

3. **Sub-issue: The implications of the Statement of Financial Accounting Standards No. 71 resulting from the recommended stranded cost calculation and recovery methodology.**

Although my background and expertise are not in this area, I will provide a brief response to this question. I understand that SFAS 71 provides for regulatory financial accounting treatment for investor-owned utilities that is consistent with Commission Orders or Rules. I also understand that this standard differs from treatment available to unregulated business. A significant difference in the accounting between regulated utilities and unregulated businesses is the provision that allows the creation and amortization of Regulatory Assets. Regulatory Assets are generally current costs of which the recovery is deferred to future periods. If the Commission determines that certain services, which had been regulated services, to be competitive, the utilities no longer qualify for the accounting treatment of SFAS 71. The treatment afforded by SFAS 71 appears only to be applicable to the utility's regulated assets. The question becomes, once a service has been determined to be competitive, does the determination result in a requirement by the utility to immedately write off those assets? I do not believe so.

As part of the transition process to competition, the assets will be evaluated for their market value. That value will be assessed against the book value. The net difference of the asset's book value relative to its market value will be considered a stranded cost, if the book value is greater than the market value.[5] At that point, the Commission has made a determination about a stranded cost amount, which is a regulatory determination regarding the stranded cost amount, which should be evaluated by the Commission on a case by case basis. In other words, it may no longer be appropriate to use SFAS 71 accounting treatment relative to generating assets, however it would be appropriate to use SFAS 71 accounting treatment to account for the establishment and recovery of stranded costs.

DOES THIS CONCLUDE YOUR TESTIMONY?

Yes.

[5] Divestiture facilitates this process as it provides the proceeds from the sale to be applied against the book value of the asset.

BEFORE THE ARIZONA CORPORATION COMMISSION

JIM IRVIN
COMMISSIONER-CHAIRMAN
RENZ D. JENNINGS
COMMISSIONER
CARL J. KUNASEK
COMMISSIONER

IN THE MATTER OF THE COMPETITION IN THE PROVISION OF ELECTRIC SERVICES THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. U-0000-94-165

TESTIMONY OF DOUGLAS C. NELSON, PH.D.

ON BEHALF OF

ELECTRIC COMPETITION COALITION

JANUARY 15, 1998

Summary of the Testimony of Douglas C. Nelson, Ph.D. on Behalf of the Electric Competition Coalition

Docket No. U-0000-94-165

My direct testimony supports the divestiture approach to stranded costs. This market-based approach of divesting generation provides a simple, fair, accurate and workable way to identify and measure stranded assets. It grants the Affected Utility the flexibility of deciding whether or not to retain those assets and assume the risk of potential costs, or to sell those assets and seek recovery of any stranded cost. This divestiture method provides the least distortion for true electric price competition. Furthermore, it avoids the uncertainty and bias of numerous assumptions and data used in economic models, such as the Net Revenue Lost approach. The Commission argued and the Superior Court agreed that there is no "regulatory compact" requiring the continuation of monopolistic services. I oppose the use of the "net revenues lost" approach because it attempts to reinstate the "regulatory compact" theory of more regulation and higher rates to consumers.

Q. Please state your name, business address, affiliation, and your educational and business qualifications.

A. My name is Douglas C. Nelson. I am the Executive Vice President of the Electric Competition Coalition (ECC). ECC is an Arizona nonprofit corporation whose members support electric competition. My qualifications and business address are presented in the Attachment to this testimony.

Q. Who are you presenting testimony on behalf of in these proceedings?

A. I am presenting testimony on behalf of ECC and in particular Nordic Electric Arizona, L.L.C. and Calpine Corporation as members of ECC.

Q. What are your general recommendations and observations for the Commission?

A. Stranded costs could have a profound impact on electric competition in Arizona. The greater the amount of "stranded cost" which a utility is able to recover, the greater the barrier to entry of electric generation and the greater the price to consumers. Consumers will be required to pay "stranded cost charges" to the utility in addition to market based rates. Obviously, these charges will be added to the customers' bills and will distort market prices. In addition, these charges will act as subsidies to the utilities which will allow them to price their generation below its actual costs in order to drive out competitors or they will cause competitors to price their electricity well above their real market prices by using the utility's prices, and the stranded cost charge, as a ceiling price. Neither option is good for the Arizona consumer.

For the reasons I just mentioned, I recommend that the Commission

- require any Affected Utility seeking to recover stranded cost to divest of their generation assets,
- require all Affected Utilities to engage in cost-effective mitigation efforts to lower their potential stranded costs, and
- require any Affected Utility that desires to sell electricity (or other services) in the competitive market to create a functionally separated affiliate and adopt standards of conduct that are subject to Commission approval.

Q. What issues have you identified as being the most important?

A. The assurance of a market-based method, rather than an administratively developed economic model, for determining stranded costs is the most important issue before the Commission. Of equal importance, I believe the prompt commencement of the competitive sale of electric generation is vital to the containment of those accruing stranded costs.

1. Modification of Rules

Q. Should the Electric Competition Rules be modified regarding stranded costs, and if so, how should they be modified?

A. The Rules provide a reasonable basis for determining stranded costs and a fair opportunity for the Affected Utilities to recover any stranded costs. The definition of "stranded cost", in R14-2-1601.8, properly refers to the net difference between "the value of all the prudent jurisdictional assets and obligations necessary to furnish electricity" acquired prior to December 26, 1996 and "the **market value** of those assets and obligations" which are "**directly attributable to the introduction of competition** . . ." (emphasis added). As I will explain later, this definition provides the basis for the Commission to order the Affected Utility to file a generation divestiture plan if an Affected Utility desires to recover stranded costs.

The Rules appropriately update the Commission's regulations to reflect new technologies and new competitive markets of electric generation. Some economists believe that economic efficiency would be best served by ignoring the sunk costs of stranded investments and moving on with competition. I believe that a simple and fair approach in identifying and quantifying these strandable costs is necessary so that competition may progress swiftly and smoothly for all. The divestiture plan I am proposing accomplishes these objectives consistent with the market-based approach adopted by the Commission in its Rules.

2. Timing of Stranded Costs Filings

Q. When should Affected Utilities be required to make a stranded cost filing pursuant to A.A.C. R14-2-1607?

A. If an Affected Utility intends to seek recovery of stranded costs, it should file a divestiture plan with the Commission. Before an affiliate company of the Affected Utility may bid on its generation assets, I recommend that the Commission adopt regulations covering transactions between any Affected Utility and its affiliate. The divestiture plan should then include the standards of conduct between the Affected Utility and its affiliate, to ensure that consumers' interests are not harmed by anticompetitive dealings. Under this framework, the Commission would be able to prevent subsidization of affiliates at the expense of the utility's ratepayers. Following the divestiture, the Affected Utility may then file an application for recovery of stranded costs, if necessary.

3. Scope and Calculation of Stranded Costs

Q. What costs should be included as part of stranded costs and how should those costs be calculated?

A. The wider concept of stranded costs includes stranded assets, stranded liabilities, regulatory assets, and stranded social programs. Stranded assets refer to generation or related assets that become uneconomic with the advent of competition and which cannot be sold. Stranded liabilities are typically contracts with unregulated generators, but they may include contracts with fuel suppliers and contingent liabilities such as environmental regulations. Regulatory assets are primarily deferred expenses that appear as assets on the balance sheets. Stranded social programs may include cross-subsidized pricing of services, environmental compliance, and demand-side management expenditures. Although I would prefer a narrower definition of stranded cost, I am of the opinion that the market-based method for computing these values is more important than the label.

Q. Which investments should be considered strandable?

A. Generation should be the focus of stranded cost calculation and recovery at this time.

Q. What is the most challenging aspect of calculating stranded costs?

A. A major problem of identifying and treating stranded costs is the assumption of the market clearing price that may prevail. Obviously there will be no price until a competitive market is created. The market price of electricity will dictate the magnitude of stranded costs. The divestiture approach I'm recommending does away with the complex issues involving the calculation of stranded costs. Furthermore, this divestiture method may occur during any time in the transition period. It is not necessary to wait until commodity electric markets mature, because the divested assets create the market price. Implicitly, a plant's sale price (or "market valve") will equal its expected discounted net revenue over the lifetime of the plant.

Some have suggested the use of the Dow Jones Palo Verde index or the California Power Exchange as indicators of market price.[1] These very short-term prices of electricity may not however reflect the market value of electricity over a long-term calculation period desired by the Affected Utilities. These indices may not accurately reflect market conditions in Arizona. Supporters of these indices suggest that the recoverable stranded costs should "float" as the market price changes over the course of the transition period. I oppose this approach because the highly variable stranded cost charge would then become a barrier to entry for new competitors. Consumers will not be able to compare the full cost of competitive generation and the stranded cost charge to the rates for bundled services from the utility.

Q. How will the timing of competition affect stranded costs?

A. The experience of robust competition is necessary before the Commission may determine whether or not any asset may be stranded. Furthermore, the prompt introduction of competition will give the Affected Utilities the opportunity to further mitigate any of their potential stranded assets. Under the divestiture proposal, the Affected Utility has the choice of deciding whether or not to seek stranded cost recovery and divest itself of generation facilities, or keep those units in anticipation of reducing stranded costs and perhaps transfer the generators to a competitive affiliate.

Q. How should stranded costs be calculated?

A. Sale of stranded assets through divestiture is the most accurate method of calculating potential stranded costs. These arm-length transactions will reflect the market price which may be compared to the depreciated book value of the asset. For any nonmarketable asset, they should be calculated by using the asset-by-asset methodology of appraisal which is sometimes referred to as the "bottom-up" approach.

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1 Testimony of Charles Bayless (TEP) at 14-15 (Jan. 9, 1998) (Dow Jones Palo Verde index) & Testimony of Jack Davis (APS) at 9 (Jan. 9, 1998) (California Power Exchange or similar market index).

Q. How would divestiture work?

A. Under the divestiture plan, the utility would be required to sell its generation assets to a third-party or an "approved affiliated" company of the utility at a market price, if the utility seeks recovery of stranded costs. To assure the fair market price of generation, the utility would describe each of its generation facilities, their depreciated book values, and offer the generation facility or facilities to the highest bidder during an open bid period of 180 days. Under the supervision and approval of the Commission, the generation facility or facilities would then be sold to the third party or an "approved affiliated" company who offered the highest price. The utility would continue to own the distribution system and be compensated for its use through its unbundled rates.

If a generation facility sells at a price less than the depreciated book value, the difference would be deemed the stranded cost. If the selling price is higher than the depreciated book value, the surplus would be applied to reduce the stranded cost. The total net difference for all generating facilities, if less than the depreciated book value, would be recovered through a stranded cost charge. If the total selling price is greater than the depreciated book value, there of course would not be any stranded cost recovery.

Q. Under the Electric Competition Rules, how would divestiture occur?

A. The stranded cost section of the Rules, R14-2-1607.G, requires the Affected Utility to file estimates of stranded costs "supported by analyses and by **records of market transactions undertaken by willing buyers and willing sellers.**" (emphasis added). This provision allows for the Commission to order the divestiture bid process that I have outlined.

Q. What are the advantages of divestiture?

A. Divestiture maximizes the deregulation of electric generation. It emphasizes market principles by granting open access to generation capacity and it encourages the owners of generation to maximize the efficiencies in plant operations. Divestiture will assure the Arizona consumer of a competitive generation market and mitigate market power.

Another advantage of divestiture is that it does not presuppose or require a particular form of market, such as a regional power exchange or market index for electricity. The actual sale of generation in Arizona, rather than a California power exchange or Wall Street index, would be used in marketing power and computing any stranded cost. Divestiture provides symmetry in both the electric generation market and the stranded cost program.

Q. Has the divestiture approach been applied in other jurisdictions?

A. Yes, in several states. Maine and Massachusetts, for example, require divestiture. The California restructuring law requires some form of divestiture. Montana has a voluntary divestiture program.

Q. Should the Affected Utility be able to decide which generation assets are strandable?

A. No. If an Affected Utility elects to seek stranded cost recovery, it is my preference for the utility to make its entire portfolio of generation subject to divestiture. Otherwise the Affected Utility will only keep the low-cost generators and unload the high-cost plants. To allow Affected Utilities to pick and choose would be contrary to the very foundation of their argument for recovering stranded cost. They claim that their portfolio of generation was developed with the expectation that they would have to meet the projected load of their captive customers. Old plants may be fully depreciated and therefore the value of those generators may offset some of the potential stranded cost of other facilities.

Furthermore, it is unlikely any Affected Utility could identify which generator was installed for the benefit of any consumer or customer class. Another reason for requiring all generation to be divested is that excess power is sometimes sold on the wholesale market. It would be inequitable to allow the utility to retain low marginal cost generators and sell that power in the wholesale market while at the same time requiring its captive customers to purchase the high marginal cost power.

Q. Would the divestiture plan work if the utility was required to sell only a portion of its generation, let's say 50 percent?

A. Yes, although the utility would likely retain its most efficient units and divest those with high marginal cost. As a consequence, it would make it more difficult to determine what the total net stranded cost of the utility might be. The Commission could require the utility to conduct an asset-by-asset appraisal of the facilities that are not divested so that any "negative" stranded cost from those facilities may be used to offset any stranded costs incurred from the sold units. If a facility is not offered for sale, the market value of that generation may be extrapolated from those units that were sold. This information could be used in the appraisal of those units and in the calculation of stranded cost. Instead of using this approach, I believe it is more efficient to require the sale of all generation assets if a utility applies to recover stranded costs.

Q. What happens if there is no market for some generation facilities, such as Palo Verde nuclear generators?

A. If a facility does not sell, theoretically the generation unit should be "shut down" and the book value would be declared the stranded cost. From an economic perspective the "sunk costs" and the ongoing operating costs should be curtailed so as to "stop the bleeding." However, from a practical and political perspective, some high-cost generators may have to be operated for at least an interim period. For these reasons, I support the appraisal method in addressing unsold units. If this condition should occur, the Commission could then require the utility to fund an independent appraisal of the generator by a qualified expert approved by the Commission. The appraised value of the plant would be compared to the depreciated book value in calculating the stranded cost. An important requirement, however, is that the utility must agree to sell the plant at the appraised value in the future. This will assure consumers that the utility will not seek an unreasonably low value in the appraisal.

Nuclear generation may become more valuable in the future, after significantly more depreciation is taken and with relatively low variable operating costs. In comparison, fossil fuel plants may incur replacement or other life extension capital costs which may make some of them less economical to operate. It is difficult to say whether nuclear generators will not be more marketable than other generation sources, so it seems unnecessary to foreclose the option to sell those nuclear units.

Q. How would the appraisal be conducted?

A. Using traditional appraisal techniques, an expert may determine the generator's market value based upon the selling price of comparable generators (assuming such sales are available), examine its replacement cost, and analyze its revenue stream, perhaps adopting some of the Net Revenue Lost concepts that the utilities have advocated. Thereafter, the expert would provide those three figures and based upon all factors determine the appraised market value.

Q. Earlier you mentioned the Palo Verde nuclear generators. Will it be difficult to forecast the future cost of nuclear waste disposal and decommissioning the generators?

A. Yes but possible. These same projections of nuclear waste disposal and decommissioning would have to be made in the Net Revenue Lost approach which implicitly considers those estimated costs and any revenue stream from a "system benefits charge." The expert appraiser could apply the industry standards used across the country in determining the future cost of operating and decommissioning the plant.

Rather than rely on an indefinite "system benefits charge" which would be imposed upon consumers, I support the one-time integration of those projected costs within the appraised value (and hopefully ultimate sale of the generators). The Rules in R14-2-1608 provide for collection of nuclear power plant decommissioning costs as part of the system benefits charge. I recommend that this phrase be deleted from that section so that those charges would be reflected in the appraisal or sale of those nuclear units.
The investors in those generators should bear those risks and not the consumers. It is also important to keep in mind that all generators, including fossil fuel plants, have future risks and costs of environmental requirements and closure. When these plants have been divested in other jurisdictions, the purchasers have had to impute those risks and costs in their purchase prices. These same concepts may be applied to nuclear generation whether the plants are sold or appraised.

Q. How would the divestiture bid and appraisal program work under the existing Electric Competition Rules?

A. As I mentioned earlier, R14-2-1607.G requires the consideration of willing buyer and willing seller market transactions in the computation of stranded cost. Another section says the Commission shall determine for each Affected Utility the magnitude of stranded costs, and appropriate stranded cost recovery mechanisms and charges. In doing so, the Commission is to at least consider (a) the degree to which some assets have values in excess of their book values, and (b) the ease of determining the amount of stranded cost, among other factors. R14-2-1607.I. The Commission, I believe, may order the utility to file its divestiture plan under this provision.

Q. May the Affected Utility file an accurate forecast of stranded costs?

A. Generally no. Estimates of stranded costs vary widely. Critical assumptions that affect the projected levels of stranded costs include the share of retail electricity sales subject to competition, the share of retail electricity sales lost by the Affected Utility as a result of competition, future load growth, the sale of the Affected Utility's at-risk capacity, the projected market clearing price of electricity, and the number of years used in computing stranded investments.

All stranded cost estimates apply speculative assumptions of the characteristics of the new competitive market conditions, the role of new entrants, and the level of future natural gas and other fuel prices. The lack of available data with respect to the unamortized costs (or investments), along with the related plant operating cost data, present additional obstacles in estimating the potential stranded costs. Any of these assumptions and factors may cause a serious bias in projecting these potential stranded costs.

Q. Should the Net Revenue Lost approach be used?

A. Absolutely not. The Net Revenue Lost approach is premised on the false assumption of a "regulatory compact" between the Commission and the Affected Utility. Some Affected Utilities claim the Commission agreed to not change their monopoly services. As the name implies, the Affected Utility would receive the same net revenue as if competition had not occurred. Those Affected Utilities appealed the Electric Competition Rules and argued that a regulatory compact precluded the Commission from allowing the competitive sale of generation. The Commission successfully convinced the Court that no regulatory compact existed. As a consequence, the Court has rejected the notion of a regulatory compact and implicitly the use of the Net Revenue Lost approach.[2] The Commission should not endorse this approach which is based upon the regulatory compact theory.

Q. What are some of the pitfalls of the Net Revenues Lost approach?

A. All stranded costs are not transition costs associated with competition. Some assets or deferred expenses may become stranded for reasons other than increased competition, as illustrated by the write-down of assets in the past. Changes in load growth or demand side management, for example, may have caused some generation not to be fully used or uneconomical. The Net Revenues Lost approach masks these differences. Allowing recovery of stranded costs under the Net Revenue Lost approach gives the greatest

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2 In the consolidated appeal of the Rules, Judge Colin Campbell addressed whether "the competition rules issued by the Arizona Corporation Commission breaches a regulatory contract with TEP, . . ." and the Court denied "TEP's motion for summary judgment insofar as it seeks a ruling that the Commission cannot as a matter of contract change from a regulated marketplace to a competitive marketplace." *Tucson Electric Power Co. v. The Arizona Corporation Commission, et al.*, Maricopa County Superior Court No. CV97-03748 (Consolidated) (Minute Entry dated November 19, 1997).

reward to those utilities which made the worst business decisions. The use of other approaches make each asset or deferred expense subject to close inspection and comment.

A common argument made by the utilities is that they had an obligation to serve and, therefore, all generation costs incurred to meet that obligation should be fully recovered. But in a fully competitive market, simply owning generation does not create stranded costs; only owning capacity that has depreciated book value of more than its market price creates stranded costs.

Another weakness of the Net Revenue Lost approach is that it assumes that no strandable asset has market value. This is clearly a false assumption based upon the recent divestitures that have gone on in other jurisdictions.

Another shortcoming of the Net Revenues Lost approach pertains to how regulatory assets are handled. Stranded cost recovery of any regulatory asset should be traceable to a particular function, such as, generation, transmission or distribution. Only those regulatory assets that are directly attributable to competitive generation should be potentially recoverable as stranded. The Net Revenues Lost approach avoids these calculations by assuming the consumer should be at risk and pay any unrecovered regulatory asset regardless as to the type of function.

With the "before" and "after" competition comparison of the revenue stream, the customers would be obligated to pay the full cost of stranded costs, as I discussed earlier. The Net Revenue Lost approach would require the Commission to make a policy decision on how much of the stranded cost should be borne by shareholders (if any) by authorizing a fraction of the full net revenue stream. These equity issues are difficult and that is another reason why I support the divestiture approach.

Q. Earlier you said that the Net Revenue Lost approach is premised on the notion of a regulatory compact, please explain.

A. The Net Revenue Lost approach protects the market share of the monopolistic utility and reduces (or eliminates) the risk of utility shareholders. It is a continuation of the "regulatory compact" concepts that the utilities have advanced in their appeals and again in this proceeding. For example, Tucson Electric Power Company (TEP) in its direct testimony raises the notion of "a compact" entitling it to recover stranded costs. Bayless at 6; Daniel Wm. Fessler at 26-30. According to TEP's expert, the Net Revenues Lost approach "seeks to protect the expectations formed under the existing regulatory regime with respect to both the recovery of an investment and the income stream on that investment." Fessler at 37. I believe the Affected Utilities should not be able to apply the regulatory compact theory of stranded cost recovery by giving it another name, "the Net Revenue Lost approach."

Q. What should be included within strandable costs?

A. The Affected Utilities generally visualize a wider concept of "stranded costs" than I believe is appropriate. They include costs that would normally be recovered with the continuation of a monopoly environment, under the current regulatory cost-of-service rate-based regime. They in essence are seeking full compensation for all costs in the transition to a competitive environment. For example, environmental mandates are imposed on all industries, whether or not they are within the jurisdiction of the Commission. Preferential treatment should not be awarded to the Affected Utilities merely because they are complying with local, state and federal laws. These obligations are the responsibility and costs of all industries. Furthermore, these compliance obligations would be incurred regardless of the Electric Competition Rule.

Q. Should the Commission reexamine whether the stranded investment was prudently incurred?

A. The divestiture approach I have suggested does not require the Commission to reexamine whether or not the generation investment was prudently incurred. If another approach is used, such as the Net Revenue Lost concept, questions arise as to whether or not the utility's management decisions were discretionary and in accordance with the prior intent of the Commission. These thorny issues may be avoided with the divestiture approach.

4. Time Horizon for Calculating Stranded Costs

Q. Should there be a limitation on the time frame over which stranded costs are calculated?

A. The divestiture method I discussed earlier does not require the consideration of a time horizon for calculating stranded cost. The willing bidders of the generation will impute the value or cost of those obligations and liabilities within their offers. In contrast, the Net Revenue Lost approach would require a complex inventory, proration and computation of those assets which were acquired or contracted for prior to the adoption of the Rules. The Commission would then have to determine how the market values of each of those assets changed as a result of the adoption of the Electric Competition Rules. This administrative determination, with costly experts and hearings, would likely be more confusing and complex than any cost of service rate case.

5. Time Period for Recovery of Stranded Costs

Q. Should there be a limitation on the recovery time frame for stranded costs?

A. Yes. The Commission should impose the shortest time frame possible without unreasonably burdening the consumer. Preferably this recovery period should not extend beyond four years, no later than January 1, 2003--when full competition is authorized under the Rule.

6. Paying for Stranded Costs

Q. How and who should pay for stranded costs and who, if anyone, should be excluded from paying for stranded costs?

A. The recovery of stranded costs should be competitively-neutral as to all customers. This means that those customers who purchase competitive power should only pay that portion of the stranded cost that they would have implicitly paid if they were purchasing power from the incumbent utility.

If an Affected Utility sells generation to a new retail customer outside of its service territory, will that customer be obligated to pay both its incumbent utility's stranded cost and the Affected Utility's stranded cost? For example, a shopkeeper in Phoenix may desire to purchase electricity from Tucson Electric Power Company. Will the shopkeeper receive a stranded cost charge from TEP as well as from Arizona Public Service Company? The Rule does not appear to address this question. The divestiture proposal resolves this issue by requiring the Affected Utility to create an affiliate entity if the utility seeks to recover stranded costs. The customers stranded cost obligation would then be only to APS. Similarly, I recommend that the Commission consider requiring any Affected Utility that desires to sell retail generation outside of its service area to first divest of its facilities so as to avoid the double stranded cost payment issue.

Q. How should consumers pay for stranded costs?

A. A "stranded cost charge" should be prorated among consumers according to their historic power usage and the utility's total stranded cost should be proportioned among classes of customers based upon their historic power usage. Using the utility's present rate design, the charge could be assessed against the kilowatts, kilowatts per hour, or both. This line item charge should be reflected on the bills of both those consumers who purchase generation from the incumbent utility and those who buy generation from others and are invoiced for distribution services. By highlighting this transition charge, the public will be better informed and be able to compare the relative cost of generation.

Q. Should the shareholders of the Affected Utility share any of the stranded cost risk?

A. Yes. Investment decisions in the utility industry are based upon future load growth, technological changes, the comparative cost of self-generation, the portfolio of power generation mix, the terms of power supply contracts, interest and inflation rates, changes in market conditions, and a host of other factors. Investors may desire to purchase stock in low or high risk utility companies, or in other industries, depending upon their investment strategy. As I mentioned earlier, the Net Revenue Lost approach would assume that only the change to a competitive generation market caused the differential in any change in the revenue stream. Clearly, this is a false assumption. By using the Net Revenue Lost approach the full future risk of these factors is placed solely on the consumer.

Q. How would you propose to share the stranded cost risk between the shareholders and consumers?

A. The divestiture approach avoids the issue of segregating stranded costs between shareholders and consumers. If the asset's market value is below its depreciated book value, the net difference is the amount the Commission may include in the stranded cost recovery account for the Affected Utility. To the extent other assets have market values above their depreciated book values, those amounts should be used to offset the asset with a negative value. The net result is that the shareholders would recover (and share the risk) of the utility's true market value which would be translated through the utility's share price. To the extent the generation assets have total divestiture market values less than their depreciated book values, the consumers could be assessed a fixed proportionate amount which could be either paid in a lump sum or over time by both those consumers who remain with the incumbent utility or decide to purchase generation from others.

7. True-Up Mechanism

Q. Should there be a true-up mechanism and, if so, how would it operate?

A. In general, no. When making the application for recovery of stranded costs, the Affected Utilities should be reasonably precise in defining the asset and the magnitude of the stranded cost that resulted from the divestiture or appraisal. Without such precision, customers may experience a retroactive cost in purchasing competitive power. If there is uncertainty about the full cost of competitive power, competition will be muted because consumers will be uncertain of their total cost in receiving competitive generation.

Another problem with a true-up mechanism is customers will change over time. Any true-up mechanism will create inequities among customers depending upon when they participated in the competitive market or when they came into or left the service area.

Q. How will a true-up mechanism operate?

A. If a true-up mechanism becomes necessary, because of unforeseen circumstances, the Commission may initiate a hearing process to implement a process for adjusting the overcollection or undercollection of stranded cost for a particular utility. Efforts to develop a true-up mechanism at this stage would seem premature, particularly since it is unknown what factors may affect any potential over or under collection of stranded cost.

8. Price Caps and Rate Freeze

Q. Should there be price caps or a rate freeze imposed as part of the development of a stranded cost recovery program and, if so, how should they be calculated?

A. As a general proposition there should not be any need for a price cap or rate freeze, although I am not opposed to a price cap. The price cap should be the sum total of all charges the customer is paying under current rates of the Affected Utility.

The Commission should encourage the aggregation of <u>all</u> customers into purchasing groups so that they may reap the benefits of competition without the necessity of a price cap or rate freeze. The Commission's Rules ensures that all classes of customers benefit from electric competition. Residential and commercial customers comprise the large majority of electric demand. Rather than impose a price cap or rate freeze, the Commission should encourage residential and commercial customers to aggregate their electric loads and purchase generation from the competitive market.

In particular, I am opposed to any rate freeze because any benefits resulting from the utility's cost reductions would flow only to shareholders without any rate reduction to consumers. Any cost savings caused by the competitive transition should be reflected in both the bundled and unbundled rates of the regulated services offered by the Affected

Utility. A rate freeze would take away the most important consumer protection remedy--the ability to change generation suppliers.

9. Mitigation of Stranded Costs

Q. What factors should be considered for mitigation of stranded cost?

A. The Rules require the Affected Utilities to "take every feasible, cost-effective measure to mitigate or offset" stranded costs. R14-2-1607.A. Each Affected Utility should aggressively be mitigating its stranded costs as part of prudent management. Each Affected Utility should file with its application for recovery of stranded costs a description of its previous mitigation efforts and a plan of action for mitigating any potential stranded costs.

One method for reducing stranded costs, as mentioned in the Rule, is for the utility to offer "a wider scope of services for profit." R14-2-1607.A. Although the Rule is not clear, I recommend that the Commission interpret this provision as requiring the creation of an affiliate company before any competitive enterprise may be engaged in by the Affected Utility. As I suggested earlier, I believe the Commission may order the utility to divest itself of those assets used in the profit-generating enterprise. In doing so, the revenue from the transferred assets may be used in offsetting stranded costs, and then the profits and risks of that competitive enterprise would flow to the shareholders of that affiliate company. If this provision of the Rule is unclear, I recommend that the phrase "or offering a wider scope of services for profit" be deleted from R14-2-1607.A.

Conclusions

Q. Please summarize your recommendations.

A. The market-based approach of divesting generation provides a simple, fair, accurate and workable way to identify and measure stranded assets. This concept grants the Affected Utility the flexibility of deciding whether or not to retain the generation assets and assume the risk of potential stranded costs, or to sell those generators and seek recovery of any stranded cost. This divestiture method provides the least distortion for true electric price competition. Furthermore, it avoids the uncertainty and bias of numerous assumptions and data used in economic models, such as the Net Revenue Lost approach.

Another advantage of the divestiture proposal is that competition may begin without delay. Until retail energy markets are open for competition, estimates on what will be uneconomic assets in a competitive market are highly speculative and possibly meaningless. I recommend that competition begin no later than January 1, 1999. Customers will benefit from lower-priced generation, because the divested generation will be subjected to cost efficiencies imposed by the competitive market. For these reasons and others I discussed in my testimony, I strongly urge the Commission to carefully consider the divestiture approach for the resolution of stranded costs and remain committed to the January 1, 1999 commencement date.

Q. Does this conclude your direct testimony?

A. Yes.

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