

OPEN MEETING ITEM

RE 00000C-94-0165

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Commissioner Carl Kunasek
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Arizona Corporation Commission
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Dear Commissioner Kunasek:

This letter is in response to your June 1, 1998 letter, which included a number of specific questions about the process utilized to develop the "ACC Staff Statement of Position on Retail Electric Competition."

Hopefully, the answers below will help to reduce some of the confusion that has arisen about the process. In essence, Staff is continuing with the same open communication process that has characterized the Retail Electric Competition effort since 1994. We welcome all comments and suggestions, and are willing to modify our position in order to develop an approach that is the most equitable for all of Arizona's citizens and businesses. My responses to your questions are included below:

- Q: Cite and provide relevant copies of the specific Staff testimony, by page and related exhibit, which support your position on generation divestiture, transfer of competitive assets and rate reductions for affected utilities, as well as an economic impact statement on divestiture, which demonstrates it is in the best interest of the Arizona consumer:
- A: Staff's testimony in the Stranded Cost proceeding did not advocate divestiture as the best methodology for valuing stranded costs. Dr. Kenneth Rose's testimony addresses this issue. Exhibits S-1 and S-2 are attached. Staff's testimony did not advocate the transfer of competitive assets and rate reductions. We did, however, read suggestions for some of these ideas in the written testimony submitted by others and there was extensive discussion by witnesses of some of these ideas. Their arguments were quite convincing and Staff's position has evolved to incorporate some of those ideas presented in verbal and written testimony. Some of the parties that expressed support of these ideas included Enron, P G & E Energy Services, Electric Competition Coalition, Citizens Utilities, The Land and Water Fund of the Rockies, and Tucson Electric Power.
- Q: Provide a copy of Staff's economic model or financial analysis, which supports the ability to reduce affected utilities' retail rates by 3 to 5 percent, yet simultaneously increase the rate of capital recovery via competitive transition charges for the following: system

benefit charges, provider of last resort charges, solar charges, low income assistance charges and, or course, stranded investment;

- A: The suggestion for a possible 3-5% rate reduction came from the desire to reach a consensus among all stakeholders on how to equitably modify the existing customer selection process in a way that would be beneficial to all customers and to all parties in the retail electric competition process.

Staff has heard the assertion of Affected Utilities that the customer selection requirements would cause a costly manual administration of the tens of thousands of customers as required by the first phase of competition that is currently embodied in the Rules. The Affected Utilities have petitioned the Staff for an alternate approach that would only allow the largest industrial customers to choose a competitive supplier in the first two years of competition. Staff's position has been firm that there must be some benefit for all customers starting on 1/1/99. If some customers are not allowed choice, Staff felt that some "in lieu of competition benefit" must be given to those who are not allowed to choose. This is how the "3-5%" rate reduction concept was developed. I would also note that both Tucson Electric Power Company and Arizona Public Service Company have settlement agreements which contemplate future rate reductions. Targeting those reductions to the residential class, for example, may result in cumulative decreases in the 3-5% range.

Further, some of these items, such as stranded costs, system benefits charges, and low income assistance are already within some utilities' rates. Should the Commission choose not to implement the "big customers first/in lieu of competition benefit" approach, the rules could remain as written.

- Q: For those positions that have been "influenced by input from various stakeholders," identify the specific "position" and the stakeholder group that influenced the Staff position.

- A: Almost every position has been influenced, in some way, by comments of the various parties. For instance, our position of insisting on "in lieu of competition benefits" is consistent with the concerns expressed by RUCO, ACAA, and the Arizona Consumers Council that residential customers benefit from the move to competition. Similarly, the Residential Phase-In was designed to show the residential stakeholders a good-faith attempt to start allowing residential customers the opportunity of choice. The Staff position on aggregation was influenced by the comments by potential competitors, such as P G & E Energy Services, and by the City of Tucson. The Staff position on establishing affiliates for the Affected Utilities' marketing programs was influenced by testimony and comments by competitors such as Enron and P G & E Energy Services. Metering and billing issues were influenced by the work of the Metering Subcommittee and the Billing & Collection Subcommittee. Requirements related to the Independent System Operator (ISO) and the Independent Scheduling Administrator originated in the Electric System Reliability and Safety Working Group, which consists of a cross-section

of stakeholders. Timing and customer selection issues were influenced by several utilities that expressed concerns as to the feasibility of opening competition to small customer loads as of 1/1/99.

Q: As Acting Director for the Utilities Division, did Mr. Rose direct you to alter the process, that is, bring forward this new proposal?

A: There was no alteration of the "process," but rather a continuation of the process started under Mr. Yaquinto in 1994. The Staff position paper is a refinement of the Staff's position that has developed over four years through the public input process which included hearings, testimony, working group meetings, and written comments & suggestions. Mr. Rose participated with Staff in the production of the current Staff Position paper.

Q: Were you provided any assurance by Mr. Rose that the Commission Majority supported this new policy?

A: In a number of the meetings that were held over the last two months, Mr. Rose indicated to those assembled that he had discussed a number of the major issues related to the rulemaking for retail competition with Commissioners. He clearly stated, in each of the meetings, that he did not discuss anything related to stranded costs with Commissioners because of ex parte concerns. At one meeting, attended by Commissioner Kunasek, Mr. Rose warned the participants that they would not be able to discuss stranded costs while the Commissioner was in the room. Mr. Rose did indicate that two Commissioners seemed favorable to the ideas that he was allowed to discuss with them.

Q: Did Mr. Dickerson write this proposal?

A: Mr. Dickerson was one of about twelve Commission employees, including myself, who were involved in the writing of the Staff Position.

Q: Did Mr. Dickerson meet with Commissioner's Irvin and Jennings on this proposal?

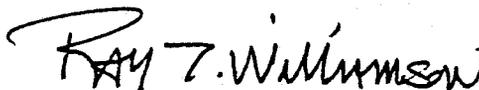
A: I have no knowledge of whether or not Mr. Dickerson met with any of the Commissioners.

Q: Does Mr. Dickerson report to you or Mr. Rose?

A: Mr. Dickerson does not report to me.

I have confirmed that copies of your June 1, 1998 letter have been provided to the specific parties from whom you sought responses. Attached are responses prepared by Steven Dickerson and William Post.

Sincerely,

A handwritten signature in black ink that reads "Ray T. Williamson". The signature is written in a cursive style with a large, sweeping initial "R".

Ray T. Williamson
Acting Director
Utilities Division

RTW:rkt
Enclosures

Cc: Docket Control
Electric Competition mailing list

Testimony of Dr. Kenneth Rose
Summary

The Staff believes that as competition in generation develops, the competitive market will provide a more accurate and objective basis to determine the value of generation assets. The fair value standard in Arizona is meant to mimic a competitive market and allows the Commission to use a valuation method that most closely and accurately approximates a market value. The Staff does not accept the argument there is now or in the past a contract obliging the people of Arizona to pay for uneconomic costs. The term regulatory compact, properly understood, does not refer to an implied, implicit, or explicit contract. The Staff does not believe that the "social compact" is now, or has ever been, a contract guaranteeing the utility a perpetual monopoly, freedom from competition, or full cost recovery.

The Staff believes that allowing recovery of uneconomic costs from customers will have a significant negative impact on the development of a competitive generation market. In particular, there are three ways that recovery can distort a competitive outcome. First, recovery will act as a barrier to entry to and exit from the generation market. Second, recovery of uneconomic costs reduces the incentive to mitigate and reduce uneconomic costs. And third, recovery creates an asymmetry of risk and reward that can distort the competitive market. In general, the more uneconomic costs that are recovered, the greater the distortion of the market.

In a competitive market, inefficient and obsolete practices and firms are either eliminated and replaced with more efficient and superior firms or forced to redirect their efforts to become more efficient and better managed. Overall this results in society's limited resources being used in the most productive manner. This limits waste and strengthens the overall economic health of the country. "Bailing out" a firm that faces possible losses hampers this screening process of a market

economy. As a result, recovery of uneconomic costs reduces overall economic efficiency and impedes the development of a competitive generation market.

There are three general types of uneconomic costs: (1) costs related to the generation of electricity, or "production costs," (2) "regulatory assets" that are currently carried on the utility's books, and (3) public-policy obligations that a utility may have been required to support by state or federal law or regulation. Only the first two are of major importance in this proceeding.

Of the several ways to estimate the first type of uneconomic costs, potential production costs, the Staff believes the "top-down" approach is a satisfactory approach. This approach projects the net present value of the difference between the generation revenues that would be received if traditional regulation continued and the projected revenues expected with competition. However, the Staff believes that this approach is only appropriate for estimating the size and direction of uneconomic costs of affected utilities in Arizona. The result of the analysis should not be used to determine an amount of uneconomic cost that should be recovered from customers. The Commission should decide the amount of "transition revenues," if any, that are needed to meet predetermined criteria set by the Commission.

With respect to recovery of regulatory assets, Staff believes that post-in service Allowance for Funds Used During Construction (AFUDC) should generally be classified as production assets for purposes of the top-down approach. This is because AFUDC is indistinguishable from other plant costs, and revenues from plant are production revenues that can be recovered through the market. In addition, regulatory assets pursuant to FAS 109 should be classified as production costs as well. These regulatory assets are customer receivables for future income taxes. Regulatory assets that should be specifically considered for recovery are those, not otherwise dealt with above, which were explicitly created and booked as a direct result of an entry or order of the Commission.

Since the recovery of uneconomic costs distorts the development of a competitive market, the time frame for recovery should be as short as possible. The Staff recommends that, if recovery is allowed, the recovery time frame, or transition period, be five years or less. Any allowed transition revenues should be recovered through a "non-bypassable" customer or "wires" charge. This could be in the form of a surcharge added to the distribution charge for all distribution customers.

The question of whether there should be a true-up mechanism depends on how the Commission addresses the recovery of uneconomic costs. The closer to complete recovery of uneconomic costs the Commission decides to allow, the greater the need for a true-up mechanism. Since there will inevitably be errors in the forecast of uneconomic costs, a true-up is needed to reconcile the difference between the actual amount and the amount recovered from customers and to prevent customers from paying too much. However, the need for a true-up diminishes as less recovery of uneconomic cost is allowed. If the Commission allows only a portion of the uneconomic costs, then there is little need for a true-up mechanism.

The Commission may consider a price cap as a safeguard against the possibility of the components of the unbundled rate totaling more than the old tariff. That is, to ensure that the sum of the generation price, the transition revenues allowed, transmission and distribution charges, and charges for other services does not exceed the customer's former tariff. A price cap or freeze, if used, should only exist for the transition period if uneconomic costs are being collected from customers.

A much more robust incentive to ensure mitigation and reduction of uneconomic costs than any accounting or auditing means is to not allow, and certainly not guarantee up-front, full recovery of uneconomic costs. This would be more consistent with the efficiency goals of moving to a

competitive generation market and would be less costly administratively.

Finally, the Staff does not believe that securitization of uneconomic costs is in the best long-term interest of Arizona customers or the development of a competitive market since it results in a significant transfer of risk from the utility to customers.

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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 PROVISIONS OF ELECTRIC)
SERVICES THROUGHOUT THE STATE)
OF ARIZONA)

DOCKET NO. U-0000-94-165

DIRECT TESTIMONY OF DR. KENNETH ROSE

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1 INTRODUCTION

2 Q. Please state your name, address, and qualifications.

3 A. My name is Kenneth Rose. I am a Senior Institute Economist at the National Regulatory
4 Research Institute (NRRI), the research institute of the National Association of Regulatory Utility
5 Commissioners and its member state public utility commissions. The NRRI is a research department
6 at The Ohio State University and I work in its Electric and Gas Division. My business address is
7 1080 Carmack Road, Columbus, Ohio 43210. I received my B.S., my M.A., and my Ph.D. in
8 economics from University of Illinois at Chicago in 1981, 1983, and 1988, respectively. My
9 dissertation thesis was an *Economic Analysis of Electricity Self-Generation by Industrial Firms*.

10 From February 1984 through June of 1989, I was an Economist at the Energy and
11 Environmental Systems Division of Argonne National Laboratory. There I conducted economic
12 analysis for the United State Department of Energy, the U.S. Department of the Interior, the Bureau
13 of Land Management, the U.S. Department of Commerce, the Census Bureau, the U.S. Army Corp
14 of Engineers, and the Institute for Water Resources. From July of 1989 to the present I have been
15 employed at the NRRI. While working at the NRRI, I have designed, managed, written, and
16 presented studies on numerous public utility regulatory topics. These include competitive bidding
17 for power supply, transmission access and pricing, measuring demand-side management benefits,
18 price-cap implementation, and most recently, the restructuring of the electric utility industry and
19 uneconomic or "stranded" costs.

20 I have previously presented testimony on electric utility restructuring and stranded costs
21 before the Public Service Commission of Mississippi and the Joint Committee on Electric Utility
22 Deregulation of the General Assembly of the State of Ohio. I have also recently completed
23 numerous reports and articles on electric utility restructuring and related issues such as securitization
24 and uneconomic costs.

25 Q. What are the staff's highest priorities among the Arizona Corporation Commission's
26 nine specific stranded cost questions?

27 A. The staff's highest priorities are issue #1, should the Electric Competition Rules be modified
28 regarding stranded costs and if so how; issue #3, what costs should be included as part of stranded

1 or full cost recovery. No argument can be made that there is now or was in the past a contract
2 obliging the people of Arizona to pay for uneconomic costs.

3 Q. Can you elaborate on your economic interpretation of the "regulatory compact"?

4 A. A central problem in the regulation of monopoly firms has been how to fairly value the assets
5 and compensate for costs the regulated company incurs. It is well established that states have the
6 authority to change the way utility assets are valued and the manner in which costs are recovered
7 from customers. This right of a state to change the way utility assets are valued has been upheld by
8 the U.S. Supreme Court on several occasions.¹ However, valuation must be based on a reasonable
9 standard and cannot be arbitrary or capricious. The Staff believes that a competitive market provides
10 a means to determine the fair value of utility assets and control costs that is not arbitrary or
11 capricious. The market provides a better means to discipline costs of generation suppliers than
12 regulation alone at ensuring that investment decisions and expenditures are economic and in the
13 public interest. Of course, states are free, at their discretion, to provide compensation for
14 uneconomic assets as some states have done. But it is not a constitutional requirement as is often
15 claimed.

16 It is important to note that the current regulatory process developed over the last several
17 decades was intended to act as a surrogate for competition, albeit an imperfect one, since competition
18 itself was viewed as impractical. The primary benefit to the public from regulation was that it was
19 necessary to avoid monopoly pricing that would likely occur with no regulation. The process of rate
20 cases, prudence reviews, used and useful tests, automatic-fuel and other expenditure pass-throughs
21 etc. were all intended to mimic a competitive market. It was not a perfect substitute for competition.
22 Because of an asymmetry of information between the regulated firm and the regulator, as a practical
23 matter, regulators simply cannot collect all the necessary information needed to determine a price
24

25 ¹ The most recent case was *Duquesne Light Co. et al. v. Barasch et al.* in 1989.
26 In footnote number 10, the Court stated that a "rigid requirement of the prudent investment
27 rule would foreclose hybrid systems. . . [and] would also foreclose a return to some form of
28 the fair value rule just as its practical problems may be diminishing. The emergent market
for wholesale electric energy could provide a readily available objective basis for
determining the value of utility assets."

1 Question number 1

2 Q. Should the Electric Competition Rules be modified regarding stranded costs, if so.
3 how?

4 A. The Staff recommends that the Electric Competition Rules be modified to reflect the
5 Commission's broad discretion and authority to address potential "stranded cost." The Staff rejects
6 the idea that *all* potential competitive losses of "affected utilities" must be recovered from customers
7 without regard to the circumstances of a affected utility's investments or expenditures

8 It is our recommendation that Rule 14-2-1607 be modified so that "stranded cost" recovery
9 is limited to minimize the impact of recovery on the effectiveness of competition. There should be
10 no guarantee of stranded cost recovery. Rather the opportunity to recover stranded costs should be
11 the result of utility efforts to be more efficient. Proposed language is provided as per attachment 1.

12 Q. What are the important economic concerns that you would like to address?

13 A. There are several economic concerns that have been raised in testimony and elsewhere that
14 the Commission should consider. The uneconomic cost recovery issues addressed below are the
15 risk/reward symmetry, opportunism by the state, economic efficiency, and the development of a
16 competitive generation market and whether recovery distorts its development. Each of these issues
17 is now discussed in detail.

18 Q. Is there a risk symmetry under regulation that is being violated if there is no recovery
19 of uneconomic costs?

20 A. The testimony of Kenneth Gordon (on behalf of Tucson Electric Power Company) argues
21 that there is a symmetry between risk and reward that exists with traditional regulation. Dr. Gordon
22 states

23 If the investment turns out to be successful, the company's shareholders are allowed
24 to earn no more than the cost of capital in return, which means in effect that
25 ratepayers receive the cost savings or similar benefits of the good investment. On the
26 other hand, if the investment turns out to be unsuccessful, shareholders are not
27 penalized--ratepayers remain responsible for covering its costs. (Lines 9 through 13,
28 page 8)

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28

1 Q. Is changing to a competitive market to value utility assets opportunism?

2 A. No. If a state were to switch its method of valuation back and forth when it benefited
3 ratepayers or did so to simply penalize stockholders, then this clearly would be opportunism. The
4 intent behind the restructuring of the electric industry is not to punish utilities for any decision they
5 made, but to improve the incentives to minimize costs over what has occurred under regulation. The
6 Staff disagrees with Dr. Gordon (lines 20 through 23, page 8) that the state cannot change the way
7 assets are valued without compensation and to do otherwise would be opportunism. States have
8 changed the way utilities were regulated several times in the past. For example, changing from
9 reproduction-cost rate-base valuation to original cost or disallowing intangible assets in rate base
10 (such as good will or franchise value). Also, federal, state, and local governments change tax laws
11 and land use policies, and other industries such as airlines and trucking were deregulated usually
12 without providing compensation to potential losers as a result of the policy change.

13 The Staff believes that moving to a competitive generation market, in effect moving to a
14 market valuation of assets, will provide a superior means of assessing the fair value of assets and
15 judging the appropriateness of costs. This will undoubtedly mean that there will be winners and
16 losers as a result of the change, but this cannot be construed as arbitrary and capricious.

17 Q. Please provide your definition of "stranded costs"?

18 A. "Stranded costs" is an issue that has emerged as the electric utility industry is being
19 restructured by introducing competition at the generation level. These costs are defined as costs
20 incurred by a utility to serve its customers that were being recovered in rates but are no longer
21 recoverable due to the availability of lower-priced alternatives that have replaced the utility supplied
22 power. The Federal Energy Regulatory Commission and every state that has considered competition
23 in generation has addressed this issue in some manner. These costs that are called "stranded" are
24 more accurately described as uneconomic since these costs are found by the workings of a
25 competitive market and not by a government entity. Of course, not all utilities have uneconomic
26 costs and not all utility costs are uneconomic. This depends on the working of the market. If the
27 market price is sufficiently high, then uneconomic costs decline or are even eliminated. As the
28 market price falls, uneconomic cost will increase. A problem that policy makers face today is that

1 that recovery impedes the development of a competitive generation market and reduces overall
2 economic efficiency.

3 The main economic argument for permitting more competition for electric generation is that
4 it encourages *dynamic* economic efficiency. Competition encourages dynamic efficiency by
5 motivating utilities to take actions that make it more competitive. This includes closing inefficient
6 plant, making new investments that improve the overall competitiveness of the company, reducing
7 their operating costs, expanding into new markets (both geographic and new products), and taking
8 other actions to improve their competitive position. Utilities across the country have already been
9 lowering prices to retain industrial customers and municipalities that border a neighboring utility
10 with lower rates. Industrial and large commercial customers, with the added option of self-
11 generation, have also been negotiating lower rates.

12 Q. If "stranded cost" recovery is allowed, what effect will it have on the development of
13 a competitive market?

14 A. Requiring recovery of uneconomic cost from customers will have a negative impact on the
15 development of a competitive generation market. In particular, there are three ways that recovery
16 will distort a competitive outcome. First, a recovery surcharge will act as a barrier to entry to and
17 exit from the generation market. Competition requires that competitors such as new independent
18 suppliers and other utilities are able to compete on an equal basis with the incumbent utility. This
19 means no special advantages are given to the incumbent. In fact, the incumbent utility will already
20 have an advantage in terms of name recognition, established ties with its current customers, and, in
21 most cases, sunk investment that has been substantially recovered. This also means that entrance
22 into the incumbent utility's territory by alternative suppliers is not inhibited in any significant way.
23 Allowing recovery of uneconomic costs, however, provides both an advantage for the incumbent
24 utility and makes it more difficult for alternative suppliers. This does not mean that no one will
25 enter, only that there will be less entry than without the barrier.

26 In addition, inefficient suppliers are encouraged to continue to operate inefficient plants. In
27 this way recovery of uneconomic costs acts as a barrier to exit from the market when it would
28 otherwise be economic to do so. This is related to the second problem: recovery of uneconomic

1 based on marginal cost to the utility's rate that is based on long-run average cost. This possibility
2 was raised by Kenneth Gordon's testimony (lines 11 through 19, page 4). This is a problem that was
3 first raised when, for example, it was noted that an industrial customer may favor self-generation
4 over utility power when the marginal cost of self-generation is compared to the utility's rate.
5 However, the long-run marginal cost of the utility may be lower. From a productive efficiency
6 standpoint, therefore, the supply option with the lowest marginal cost may not be selected. This
7 productive inefficiency is referred to as "uneconomic bypass." Uneconomic bypass is likely to occur
8 only in a very limited circumstances: when the alternative supply option has a marginal cost less than
9 the utility's rate but greater than the utility's marginal cost. There are, in addition, three other
10 problems with this concept.

11 First, uneconomic bypass has very little meaning in a competitive generation market.
12 Uneconomic bypass may be a problem when the utilities are vertically integrated and the utility's
13 rate reflects the long-run average cost of all services a utility supplies. However, when services are
14 unbundled, generation from different sources will compete based on price or marginal costs.
15 Customers that choose an alternative supplier will be required to pay for distribution, transmission,
16 and other system charges. This isolates the generation and should avoid the uneconomic bypass
17 problem since suppliers will be competing on a marginal cost basis.

18 Second, related to the problem of creating a barrier to entry and exit already discussed,
19 recovery of uneconomic costs will prevent *economic* bypass from occurring. If a customer has a
20 choice of an alternative supplier where a surcharge for recovery of the utility's uneconomic cost is
21 added to the supplier's price versus the incumbent utility's generation price, the customer may select
22 the utility. However, it is possible that the alternative's marginal cost is lower. For example, assume
23 the utility's marginal cost is 3.5 cents/kWh and the alternative supplier's marginal cost is 2.5
24 cents/kWh; if the uneconomic cost surcharge is 2.0 cents/kWh, then the customer will pick the utility
25 since the alternative's *apparent* price is 4.5 cents/kWh versus the utility's marginal cost of 3.5
26 cents/kWh. This is inefficient in terms of productive efficiency because the alternative's marginal
27 cost is lower.

28

1 be caused by changes in technology, fuel prices, or regulatory policy. Obviously, it is this last
2 exogenous factor that is now changing. These shifts in the curves over time are caused by dynamic
3 effects. When developing a regulatory policy, therefore, it is important to also consider this second,
4 and in many respects more important type of efficiency.

5 A key difference between static and dynamic efficiency is the element of time. Dynamic
6 efficiency assumes that the utility's marginal cost can or does change over time or, more importantly,
7 can be induced by policy to change. Competitive markets are by nature dynamic and it is these
8 dynamic effects that are sought in the current electric industry restructuring efforts. Market
9 competitors are driven to innovate and control costs to retain or attract customers (as long as it is or
10 is expected to be profitable). Dynamic efficient regulatory options provide more incentives for the
11 utility to reduce its costs. Utilities can reduce costs by, for example, renegotiating fuel contracts,
12 reducing operation and maintenance costs, or reducing the carrying cost of capital.

13 In theory, static efficiency requires that only economic bypass occurs. This is a necessary
14 but not sufficient condition for dynamic efficiency, however. While there may be static efficiency,
15 or no uneconomic bypass with production of a given output only from the lowest cost suppliers, this
16 does not mean that there is dynamic efficiency. Although, complete dynamic efficiency would
17 require that static efficiency be achieved. In short, dynamic efficiency is the broader and overall
18 efficiency condition to measure social welfare. Static efficiency would only indicate that production
19 was from the lowest cost producers at a given time.

20 In practice, these two definitions of economic efficiency are distinct in other ways.
21 Regulators may be able to determine if the lowest cost producer is supplying the power, by
22 comparing *known* costs, however, determining whether this is dynamically efficient would probably
23 be impossible. Dynamic efficiency is found through the workings of the market where customers
24 are choosing their supplier and producers are seeking every opportunity to reduce costs. For
25 example, any action that limits the number of competitors may appear to ensure economic efficiency,
26 but may remove competitive pressure on the utility to control costs. Also, regulators may impose
27 access, entrance, or exit fees, in the interest of static efficiency, but could interfere with the market
28 finding the dynamic efficient solution. This is an inescapable (and perhaps paradoxical) outcome

1 competitors. The dynamic efficiency gains from reduced costs, innovation, and lower prices to
2 consumers, while difficult to predict, almost certainly outweigh any loss in static efficiency.⁵

3 Wenders attacks the entire notion of uneconomic bypass and questions whether it actually
4 exists. In his view, the notion of uneconomic bypass "misses the whole disequilibrium feature of
5 the competitive *process*. Competition is a process by which economic efficiency, in a static
6 equilibrium sense, is brought about"⁶ (emphasis in the original). Any "uneconomic" competition
7 is "the most efficient means of bringing about the economic end" and "in the real world. . . .
8 competition by allegedly inefficient providers happens all the time, and in fact in the long-run
9 improves economic efficiency."⁷ He adds that the "'cost' is not only noneconomic and sunk: It is
10 a fiction created by the regulatory process to begin with — a regulatory process that has resulted in
11 the massive distortions to economic efficiency."⁸

12 On the issue of regulators attempting to correct or prevent the loss from static inefficiency,
13 he notes that it would "entrench the existing efficiency-distorting regulatory mechanism and deflect
14 the corrective forces of competition."⁹ Moreover, to suggest that the regulator "is suddenly going
15 to come up with a costing methodology that solves the uneconomic bypass problem in the litigious
16 atmosphere of a regulatory environment is naive."¹⁰ These practical problems of "entrenchment"
17 of inefficient regulatory costs and the measurement of the inefficiency are serious limitations that
18 cast significant doubt on the practicality of attempting to prevent uneconomic bypass.

21 ⁵ Uneconomic bypass will likely only occur in a limited range and the loss in
22 efficiency relatively small. The potential loss from "insufficient" bypass, on the other hand,
could occur over a much wider range and be much larger.

23 ⁶ John T. Wenders, *The Economics of Telecommunications: Theory and Policy*
24 (Cambridge, MA: Ballinger Publishing Company, 1987), 259.

25 ⁷ Ibid., 260.

26 ⁸ Ibid., 261.

27 ⁹ Ibid.

28 ¹⁰ Ibid., 262.

1 financial integrity of the utility. This would not necessarily maintain the same level of profitability
2 as under regulation. In this case, the Commission estimates the market revenue and any additional
3 revenues required to maintain the financial integrity of the company for each year in the transition
4 period. This would require detailed analysis of the utility's books and records by the Commission.
5 The utility would only be allowed these revenues during the transition period.

6 As is discussed in response to question 7, if this "transition revenue" amount is less than the
7 estimated uneconomic cost, then the Commission may consider determining an amount up front and
8 not adjusting it throughout the transition period. The amount can be reduced each year during the
9 transition period and be zero after the transition period.

10 If it is decided by the Commission to allow recovery, the Staff prefers a transition revenues
11 approach.

12 Q. Has any other state adopted or proposed such an approach?

13 A. Yes. There is a proposal under discussion by Ohio state legislators. No state, however, has
14 adopted such an approach.

15 Q. Please summarize your understanding of how economic efficiency is harmed by
16 recovery of uneconomic costs?

17 A. Recovery of uneconomic costs distorts the development of a competitive generation market
18 and reduces overall long-term economic efficiency. This occurs by making it more difficult for
19 alternative suppliers to compete with the incumbent utility, discourages mitigation of uneconomic
20 costs by utilities, and provides an unfair advantage to incumbent utilities. Of far more long-term
21 importance to the state than avoiding uneconomic bypass is the development of a truly competitive
22 market. This is best done by not favoring or hobbling one supplier over another.

23 Question 2

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

26 A. Sixty days from when the Commission issues an Order from this Proceeding.

27

28

1 considered). For these reasons the Staff believes that, while not ideal, the top-down approach is a
2 satisfactory alternative.

3 The Staff believes that this approach is only appropriate for estimating the size and direction
4 of uneconomic costs of affected utilities in Arizona. The result of the analysis should not be used
5 to determine an amount of uneconomic cost that should be recovered from customers. The
6 Commission should decide the amount of transition revenues, if any, that are needed to meet the
7 predetermined criteria discussed previously.

8 Q. What is the recommended calculation methodology and assumptions made including
9 any determination of the market clearing price?

10 A. As noted, the Staff believes that there are many important assumptions that will have
11 considerable impact on the estimate of uneconomic costs. The impact of the assumptions should be
12 explicitly analyzed and discussed when the results are presented to the Commission.

13 Specifically, the Staff recommends that when the top-down approach is used to estimate
14 affected utilities uneconomic costs, several assumptions should be discussed in detail and a
15 sensitivity analysis conducted on their impact on the outcome. The projection of the market price
16 for power in the region has a particularly significant impact on the estimate of uneconomic costs.
17 For example, a relatively small increase in the forecasted price, fractions of a cent per kilowatthour,
18 can significantly lower or even eliminate the estimated amount of uneconomic cost. The Staff,
19 therefore, recommends that a range of prices be analyzed, using at least two price scenarios. Also,
20 these price scenarios must reflect the projection of a *retail* price that end-use customers will likely
21 see. It should not be based on a projection of wholesale prices that wholesale and other large
22 customers face in the spot market.

23 Other important assumptions that should be discussed include:

- 24 • Retail demand— assumptions on the future demand for electricity in the area should
25 also be described. Specifically, whether it is believed that there will be an increase,
decrease or that demand will remain constant over the period.
- 26 • Discount rate — when calculating the net present value of the difference between the
27 regulatory and competitive revenue streams, the affected utility should use several
28 different discount rates to demonstrate the effect. Also, the logic behind the number
or numbers used that are believed to be the most appropriate should be discussed.

1 written off the asset for financial reporting purposes. It is only consistent with our suggested general
2 treatment of post-in service AFUDC that revenues from any production assets would be receivable
3 as production revenues or through mitigation efforts.

4 In addition, regulatory assets pursuant to FAS 109 should be classified as production costs
5 as well. These regulatory assets are customer receivables for future income taxes. FAS 109 assets
6 are deferred tax liabilities where customer receivables for future income taxes are expected.
7 Although the booking of deferred tax liabilities as a regulatory asset reflects general accepted
8 accounting principles, the balance sheets of electric utilities also reflect FAS-109 related "credits"
9 associated with plant. As plant is depreciated over time these asset and credit balances disappear.
10 Further, FAS 109 regulatory assets are bound up in the future productivity and future profitability
11 of the utility as a whole.

12 Regulatory assets that should be considered are those, not otherwise dealt with above, which
13 were explicitly created and booked as a direct result of an entry or order of the Arizona Corporation
14 Commission. Any other regulatory asset should be viewed as production costs or in connection with
15 mitigation efforts of the electric utility.

16 Question 4

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

19 A. The time frame over which uneconomic costs are estimated is another important assumption.
20 The maximum is clearly the expected life of the generation assets. Generation assets will likely be
21 retired at different intervals. Thus, when the estimate is made of the regulatory revenues, retiring
22 assets should be removed from the revenue stream. This is usually the point where the original
23 investment is depreciated. As noted, new capital additions should not be factored into the analysis.

24 Question 5

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

26 A. Since the recovery of uneconomic costs distorts the development of a competitive market as
27 discussed, the time frame should be as short as possible. The Staff recommends that, if recovery is
28 allowed, that the recovery time frame, or transition

1 the amount collected so that reconciliation can occur. This will likely be a lengthy and drawn out
2 process.

3 An additional consideration is incentives. Determining the amount of recovery up front and
4 allowing an affected utility to retain the proceeds, may provide more incentive to mitigate
5 uneconomic costs. If the utility believes that the difference between the actual and amount recovered
6 will simply be returned to the customer, they will likely have a diminished incentive to mitigate.

7 The tradeoff between accuracy and ease of implementation, and the diminished incentives
8 are strong argument against having a true-up mechanism. Also, the Staff believes that there is no
9 need for a true-up mechanism if the Commission decides to allow transition revenues that is less than
10 the amount of estimated uneconomic costs.

11 Question 8

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

14 A. The Commission may consider a price cap as a safeguard against the possibility of the
15 components of the unbundled rate totaling more than the old tariff. That is, the sum of the
16 generation price, the transition revenues allowed, transmission and distribution charge, and charges
17 for other services does not exceed the customer's former tariff. A price cap or freeze, if used, should
18 only exist for the transition period while the transition revenues are being collected from customers.

19 Question 9

20 Q. What factors should be considered for "mitigation" of stranded costs?

21 A. To be consistent with dynamic efficiency and less costly administratively, the best way to
22 encourage mitigation would be to simply not allow, and certainly not to guarantee up-front, full
23 recovery of uneconomic costs. This provides a much more robust incentive to reduce uneconomic
24 costs than any accounting or auditing means. This would also be more consistent with the treatment
25 of uneconomic costs in other deregulated industries.

26 The Federal Energy Regulatory Commission (FERC) was one of the first to ask this question.
27 They asked "how should the Commission ensure that the utility takes all reasonable steps to mitigate
28 its own costs so as to minimize what the customer would have paid? How should the Commission

1 through a collection mechanism, such as a "transition charge" or other "non-bypassable" obligation
2 placed on ratepayers. The property right can be transferred by the utility to a designated trustee. If
3 this option is exercised by the utility, the trustee then issues a security or bond and pays the utility
4 the cash proceeds from the sale of the security in the financial market less transaction costs in
5 exchange for the property right. The cash proceeds the utility receives should equal the discounted
6 present value of the customer charge revenue stream. The utility or distribution company collects
7 the customer charge from the customers and transfers the funds to the trustee that then transfers it
8 to the security holders. The benefits of securitization come primarily from the replacement or
9 refinancing of the utility's existing capital structure of debt and equity with lower-cost debt. Any
10 savings realized from securitization are often required to be given back to retail customers.

11 The securities are essentially backed by a pledge that the securities will be paid in full,
12 including principal, interest, and financing costs. These securities have a value because of the
13 promise to create and sustain the revenue stream from the customer charge until the debt is paid.
14 California, Pennsylvania, Montana, Illinois, Massachusetts, and Rhode Island have adopted
15 legislation that allows utilities to use this option and other states are considering it.

16 While securitization can potentially lower the capital carrying cost, there are at least two
17 significant drawbacks for customers. First, to obtain a higher bond rating than current utility debt
18 and realize the lower debt cost, any securities issued would have to be irrevocable and provide
19 assurances that recovery is guaranteed for the life of the bond. Securitization provisions usually
20 contain a true-up mechanism that raises or lowers the customer charge to adjust for changes in the
21 number of customers or demand level. However, the amount initially set as the principal of the bond
22 cannot be changed. This may be a problem if the actual amount of competitive loss is less than the
23 amount forecasted when the principal was authorized. As noted, these estimates are based on dozens
24 of explicit and implicit assumptions used in the analysis, any number of which may turn out to be
25 incorrect. This represents a significant risk for customers who would have no recourse if the loss
26 does not materialize as expected.

27 A second limitation is that securitization results in a large infusion of cash into the utility.
28 The Commission may be able to direct that the cash be used to buy back equity and reduce debt.

ATTACHMENT 1

R14-2-1607.B should be modified to read:

"The Commission ~~shall~~ MAY allow recovery of unmitigated Stranded Cost by Affected Utilities. IN ORDER TO BE ELIGIBLE TO RECOVER STRANDED COST, AN AFFECTED UTILITY MUST DEMONSTRATE THAT IT HAS SUCCESSFULLY UNDERTAKEN EFFORTS TO ~~INCREASE ITS EFFICIENCY.~~"

*MINIMIZE & REDUCE ITS
UNECONOMIC COSTS."*

R14-2-1607.I should be modified to read:

The Commission shall, after hearing and consideration of analyses and recommendations presented by the Affected Utilities, staff, and intervenors, determine for each Affected Utility the magnitude of Stranded Cost, IF ANY; WHETHER RECOVERY IS APPROPRIATE AND, IF SO, THE AMOUNT OF RECOVERY; and appropriate Stranded Cost recovery mechanisms and charges IF RECOVERY IS ALLOWED. In making its determinationS of ~~mechanisms and charges~~, the Commission shall consider at least the following factors:

1. The impact of Stranded Cost recovery on the effectiveness of competition; AND WAYS TO MINIMIZE THAT IMPACT;
2. The impact of Stranded Cost recovery on customers of the Affected Utility who do not participate in the competitive market;
3. The impact, if any, on the Affected Utility's ability to meet debt obligations;
4. The impact of Stranded Cost recovery on prices paid by consumers who participate in the competitive market;
5. The degree to which the Affected Utility has mitigated or offset Stranded Cost;
6. The degree to which some assets have values in excess of their book values;
7. Appropriate treatment of negative Stranded Cost;
8. The time period over which such Stranded Cost charges may be recovered. The Commission shall limit the application of such charges to a specified time period;
9. The ease of determining the amount of Stranded Cost; -
10. The applicability of Stranded Cost to interruptible customers;
11. The amount of electricity generated by renewable generating resources owned by the Affected Utility.

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SUMMARY OF REBUTTAL TESTIMONY OF
DR. KENNETH ROSE

There are four issues addressed in this rebuttal testimony. First, Staff reiterates its position that while it favors a top-down approach to estimate uneconomic costs, this estimate should only be used to indicate the size and direction of the competitive gain or loss in Arizona. If the Commission decides to allow recovery of production uneconomic costs it should be through a "transition revenue" mechanism discussed in the direct testimony that is based on a specific criteria set by the Commission.

Second, Staff does not believe that the Commission should determine up front a percentage of the predicted uneconomic costs that will be allowed for recovery. There is little economic basis for determining the "correct" percentage. Consequently, it will be difficult to determine and likely result in a protracted process to determine it. Third, some witnesses testified that customers who do not choose an alternative supplier should not have to pay for uneconomic costs. The reason for the concern is that customers that leave the utility will not be required to pay or that a broadly defined transition charge will be added to the current rate. Staff believes that its transition revenue and price cap approach will avoid both these possibilities. This is because all distribution customers will pay the transition charge independent of the supplier and the price cap will ensure that no retail customer pays more than their current rate.

Finally, Staff challenges the view that a sale or auction is the best means to value utility assets for purposes of determining uneconomic costs. An unintended consequence of a sale or auction is that the market price may be higher than without the sale or auction. As a result, the apparent "savings" will be paid back by customers over time in the form of higher market prices. Therefore, this option cannot be justified based on only an argument that it will reduce uneconomic costs. If recovery of uneconomic cost is limited, then the utility will have an incentive to decide voluntarily whether to sell its assets based on the company trying to minimize its uneconomic costs. There may be other reasons to require divestiture of generation assets, but reducing uneconomic costs should not be considered one of them.

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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. RE-00000C-94-165

REBUTTAL TESTIMONY OF
DR. KENNETH ROSE
ON BEHALF OF THE
ARIZONA CORPORATION COMMISSION

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I. Top-down Approach for Estimating Uneconomic Costs Is Appropriate. 1

II. Transition Revenues Approach Should Be Used for Dealing with Uneconomic Costs. 3

III. Divestiture of Assets Should Not Be Used for Purposes of Estimating Uneconomic Costs. 4

1 I. TOP-DOWN APPROACH FOR ESTIMATING UNECONOMIC COSTS IS
2 APPROPRIATE.

3 Q. You suggest the use of a top-down approach for estimation of uneconomic costs. Are
4 there other witnesses and parties that prefer the use of a top-down approach?

5 A. The top-down approach, sometimes referred to as the lost revenues approach is endorsed by
6 a majority of the witnesses that addressed the issue, including Robert Malko, witness for Arizonans
7 for Electric Choice & Competition et al.; Richard Rosen, witness for Residential Utility Consumer
8 Office; Sean Breen, witness for Citizens Utilities; Walter Meek, witness for Arizona Utility Investors
9 Association; Charles Bayless, witness for Tucson Electric Power Company; Dirk Minson, witness
10 for Arizona Electric Coop; Jack Davis and William Hieronymus, witnesses for Arizona Public
11 Service Co.; Alan Propper, witness for Navopache Electric Coop; Ralph C. Smith, witness for the
12 Navy, Department of Defense, and Federal Executive Agencies; Carl Dabelstein, CPA; and
13 Elizabeth Firkins, witness for the International Brotherhood of Electrical Workers.

14 Q. Does this mean that Staff and these parties are in agreement on this issue?

15 A. Not necessarily. Staff's position is that the top-down approach is an acceptable approach to
16 *estimate* uneconomic cost, but not for determining the amount for recovery. There are several
17 advantages to the top-down approach. First, while it involves making a considerable number of
18 assumptions and forecasts, it is relatively straightforward and requires less data than asset-by-asset
19 or bottom-up approaches. Second, the top-down approach considers the affected utility's system as
20 a whole and implicitly nets out the uneconomic assets (where the book value is greater than
21 estimated market value) with those assets that are economic (where the book value is less than the
22 estimated market value). This is an appropriate method of estimating the fair value of the generation
23 assets in a competitive market. While this means that there is no asset-by-asset comparison, this
24 level of detail is not necessary for the approach to dealing with uneconomic costs that is
25 recommended by Staff. Another important consideration is that the top-down approach, which
26 usually results in a wide range of predictions, yields results that are not substantially different from
27 the bottom-up approach. Staff does not expect pinpoint accuracy and, more importantly, the
28 proposed method of dealing with potential uneconomic costs does not require it.

1 Where Staff differs substantially from the testimony of others, regardless of their
2 preferred estimation method, is the use of the results of the analysis. Staff believes that the estimate
3 of uneconomic costs should only be used to provide an approximation of the size and direction of
4 each utility's potential uneconomic cost or competitive gain. This is to gather information on the
5 competitiveness of Arizona's affected utilities, not to determine compensation for uneconomic costs.

6 Under Staff's recommendations, the Commission would determine, if recovery of
7 uneconomic cost is allowed, an amount of "transition revenues" based on a specific set of criteria,
8 such as financial integrity of the utility in light of the fair value of its generation assets in a
9 competitive market. This would not require an exact determination of the amount of potential
10 competitive loss. Rather, the Commission would determine an estimate of the market revenue and
11 determine any additional revenues needed to meet the predetermined criteria. After the transition
12 period (Staff recommends five years or less), the utility would no longer receive any transition
13 revenues for production uneconomic costs.

14 Alternatively, in another approach to determining transition revenues, the
15 Commission could base it on a performance standard, such as the long-run average cost of
16 generation of power in the region. The transition revenue would be determined on a declining
17 percentage of the difference between the company's average cost and the region's average cost
18 through the transition period. This is not intended to be full compensation for potential competitive
19 losses, any shortfall would be the responsibility of the company to either try to reduce by lowering
20 operating costs or through reduced earnings.

21 Under either approach, once the transition revenue amount and the length of the
22 transition period are determined, no true-up is necessary if less than the full amount of estimated
23 uneconomic costs is permitted to be recovered. This may provide a stronger incentive to minimize
24 uneconomic costs than would a true-up mechanism that periodically adjusts the amount of transition
25 revenue. Staff recognizes that determining the specific criteria and the transition revenue amount
26 for each affected utility will require additional effort, but this should be determined in the next step
27 in these proceedings. To date, Staff has not developed or attempted to develop a set of specific
28 criteria (financial or performance) or estimated the transition revenues for the affected utilities.

1 II. TRANSITION REVENUES APPROACH SHOULD BE USED FOR DEALING WITH
2 UNECONOMIC COSTS.

3 Q. Several witnesses testified that the Commission should determine the amount of
4 "stranded costs" and then allow recovery of some percentage of that amount.¹⁷ Do you
5 think that is an appropriate approach?

6 A. No. At best it would be very difficult to determine an exact percentage of uneconomic costs
7 to allow; at worst, it would be arbitrary and cause a protracted proceeding to determine the "correct"
8 percentage. There is simply no economic principle that suggests a particular percentage, except, as
9 noted in my direct testimony, the less that is allowed, the better it is in terms of economic efficiency.
10 This suggests that zero percent is the best percentage to use in terms of just economic efficiency.

11 Moreover, since this requires taking a percentage of an estimate of the amount of
12 uneconomic costs, the percentage itself would not be based on a solid foundation. As also noted in
13 my direct testimony, any estimate of uneconomic costs is extremely sensitive to relatively small
14 changes in the assumptions. Very small changes in the forecasted market price, for example, will
15 change the estimate substantially. The likelihood of being wrong in guessing the future market price
16 is very high since there is no history of a retail market on which to base the forecast. In addition,
17 there are many other assumptions used to make the estimate that are also very speculative including
18 future demand for power, variable cost, plant capacity factors, capital additions and their cost, and
19 many others.

20 Again, Staff prefers the approach suggested in my direct testimony and described in
21 the answer to the previous question; that is, the Commission allows an amount of "transition
22 revenues" based on a specific set of criteria, such as financial integrity of the utility or performance
23 standard. This would require no determination of an agreed on amount of competitive loss or a fixed
24 percentage, and would fairly value the affected utilities' generation in the competitive market for

25 ...

27 ¹⁷ Richard A. Rosen for The Residential Utility Consumer Office, Enrique A.
28 Lopezlira for Office of the Attorney General, and J. Robert Malko and Kevin C. Higgins
both for Arizonans for Electric Choice and Competition.

1 both the utilities and their customers. Staff believes this is in the public interest because it balances
2 the needs of consumers and utilities in the transition to a competitive market.

3 Q. Several parties have indicated that customers that do not choose another supplier
4 should not pay for uneconomic costs.^{2/} Will Staff's proposal to only allow recovery
5 through transition revenues result in these customers paying for uneconomic costs or
6 paying higher prices than their current rates?

7 A. No. There are two basic concerns; one is that when customers leave the utility and purchase
8 power elsewhere, the cost that is "stranded" will be shifted to the remaining customers. The second
9 concern is that a broadly applied transition charge will be added on top of the current rate or standard
10 offer. This first problem has been solved in other states by making the transition component
11 "nonbypassable," that is, the departing customer will pay the transition charge irrespective of where
12 the power originated. Neither concern is a problem under Staff's proposal because current rates will
13 be unbundled into their component parts. For example, all retail customers' bills may have the
14 following breakdown: a generation charge, a transition charge (if any), and a transmission and
15 distribution charge.^{3/} For the utility the generation charge may be a "standard offer" that represents
16 its generation price. All distribution customers, whether they choose an alternative supplier or not,
17 will pay the transition charge. Also, the price cap discussed in the direct testimony will ensure that
18 the total price paid by retail customers will not exceed their current rate.

19 **III. DIVESTITURE OF ASSETS SHOULD NOT BE USED FOR PURPOSES OF**
20 **ESTIMATING UNECONOMIC COSTS.**

21 Q. Several witnesses testified that they believed that an appropriate way to determine the
22 value of utility assets is to sell or auction off the generation plants.^{4/} This would, they

24 ^{2/} Betty K. Pruitt for Arizona Community Action Association, Sean Breen for
Citizens Utilities, and Albert Sterman for Arizona Consumers Council.

25 ^{3/} A similar point is made by Kevin C. Higgins for Arizonans for Electric
26 Choice and Competition (pages 34 and 35).

27 ^{4/} Douglas C. Nelson for Electric Competition Coalition, Mona Petrochko for
28 Enron Energy Services, Inc., and Douglas A. Oglesby for PG&E Energy Services
Corporation. Others noted that it could be used to mitigate uneconomic costs, including

1 **argue, provide a more precise means to determine generation asset value and estimate**
2 **uneconomic cost. Do you agree?**

3 A. No. Proponents of this approach argue that if a higher and more accurate value is obtained
4 for the utility's assets, then the amount of uneconomic cost, and presumably the amount customers
5 will have to pay, is reduced. While it may be true that using a sale or auction would provide a better
6 means than an administrative approach to determine asset value and may well result in a higher value
7 for the assets than an administrative method, there is a major limitation to using this approach to
8 determine value for *purposes of estimating uneconomic cost*— the reduction in uneconomic costs
9 from a sale or auction of the utility's assets is only illusory because of the effect that the sale will
10 likely have on the retail market price for power in the state.

11 **Q. Can you construct a simple example to explain this point?**

12 A. Yes. Suppose that a utility has just three plants with a net book value of \$50 million, \$75
13 million, and \$100 million respectively, with a total book value of \$225 million. For this simple
14 example, it is assumed that these three plants are all of the utility's generation assets. By an
15 administrative means, such as the "lost revenues" method, it is found that each plant's estimated
16 value is \$75 million, \$85 million, and \$15 million respectively, with a total value is \$175 million.
17 Assume also, for illustration purposes, that the utility will be allowed to recoup one hundred percent
18 of their uneconomic costs. In this case, the uneconomic cost is \$50 million (book value minus the
19 estimate value or $\$225 - \175), and is the amount customers will be required to pay.

20 If the utility's generating assets were required to be sold or auctioned off, it is likely
21 that it would result in a higher value for some plants than estimated through administrative means.
22 Again for illustration purposes, assume that the plants are sold and results in a market value of \$100
23 million, \$100 million, and \$10 million, respectively for a total value of \$210 million. In this case
24 the uneconomic value is reduced to \$15 million, precisely the point being made by supporters of a
25 sale or auction of generation assets.

26 ...

27 _____
28 Sean Breen for Citizens Utilities, Charles Bayless for Tucson Electric, and Carl Dabelstein,
CPA.

1 **Example 1**

2 **Significant Uneconomic Cost in Plant 3**

3

4 <u>Value Method</u>	<u>Plant 1</u>	<u>Plant 2</u>	<u>Plant 3</u>	<u>Total</u>
5 Book Value (net)	50	75	100	225
6 Administrative Value	75	85	15	175
7 Market Value	100	100	10	210

8 However, there is an important factor that is being overlooked by supporters of this
9 method. Note that the new owners of the plants after the sale will want to recover their capital
10 investment (\$210 million), which is now higher than under the administrative method (\$175
11 million). These new owners will want to recover this capital cost through the price they charge
12 customers. Therefore, the "savings" from lowering the amount of uneconomic costs that resulted
13 from the sale or auction is simply returned to the new owners through a higher market price. The
14 apparent "savings" to the customer is only an illusion. The same result occurs when there is a split
15 between the customers and the utility of the uneconomic cost recovered, except, of course, the utility
16 is not paying the higher market price for power, customers are. Therefore, a sale or auction will
17 reduce any share the utility is required to shoulder of potential uneconomic costs, but provides little
18 or no benefit to customers.

19 It should be noted that the aim of administrative estimation methods is to estimate
20 the market value relative to the current book value of the generation assets. This is accomplished
21 by estimating the net present value of the expected revenue stream that an asset will produce over
22 its estimated life. This is similar to the way a potential purchaser of the plants may try to estimate
23 the plants' value. They would take into account their expectations of future market conditions and
24 desired profit. For a utility that currently owns the plants, if the net book value is greater than the
25 market estimate, the difference is the estimate of uneconomic cost or competitive loss. If the market
26 value is greater than the book cost, then there is a net competitive gain. The reason that
27 administrative valuation methods may undervalue the assets may be due to the value potential
28 purchasers may place on intangibles such as siting certification, location proximity to loads, and
access to transmission and distribution lines. Purchasers may also place a high value on being

1 among the early suppliers to be established in the area. The value of these intangibles will not be
2 reflected on the utility's accounting books but will be reflected in the price paid for an asset.

3 **Q. What if the net result is no uneconomic costs, but a net gain from the sale or auction?**

4 **A.** In a second example, the same result can occur even when the auction is much more
5 successful and results in no net uneconomic cost. Example 2 has the same values for each plant for
6 both the net book and administrative values. In this case assume the sale or auction is very
7 successful and results in a much higher amount paid for plants 1 and 2 than the first example. In this
8 case the sale or auction results in \$125 million, \$125 million, and \$10 million or \$260 million in
9 total value. The result is that there is a net *gain* of \$35 million. If the rule is full recovery of
10 uneconomic costs, then it is appropriate to assume that customers would be given a full *refund* if
11 there was a net gain. Thus, customers get a refund, but the new owners of the plants must now
12 recover a capital cost of \$260 million in the market price.

13 **Example 2**

14 **Higher Values Obtained from Sale Results in Net Gain**

15

<u>Value Method</u>	<u>Plant 1</u>	<u>Plant 2</u>	<u>Plant 3</u>	<u>Total</u>
16 Book Value (net)	50	75	100	225
17 Administrative Value	75	85	15	175
18 Market Value	125	125	10	260

19 This illustrates the point that no matter how successful the sale or auction is, the
20 apparent "savings" in uneconomic cost to customers is *illusory*. This also demonstrates what
21 would be the worst condition for customers, an administrative valuation method with one hundred
22 percent recovery of uneconomic costs and the utility later sells the assets for a higher value but none
23 of the difference is given back to the customers. What Staff proposed in the direct testimony would
24 prevent this from occurring by limiting the amount of uneconomic costs and by not basing recovery
25 of uneconomic cost on an administratively estimated amount.

26 **Q. Are there any mitigating factors that may offset this market price affect?**

27 **A.** A mitigating factor may be that the new owners of the plants may be able to reduce variable
28 operating costs more than the utility. However, it should be expected that in a dynamic competitive

1 market, the pressure to reduce costs will be present irrespective of who owns the asset. Also.
2 potential purchasers will factor in their expectations of future operating costs and this will also be
3 reflected in their offer price for the asset. For example, if they expect that they can reduce operating
4 costs of the plant, they will be willing to pay relatively more for the asset.

5 Another mitigating factor may be that the retail market price in the region will be
6 affected by power supplied from outside Arizona so that there is not necessarily a one-to-one
7 relationship between the sale price of the generation assets in Arizona and the state's retail price.
8 However, a requirement to sell all investor-owned plants in the state will mean that a substantial
9 portion of the state's and the region's generation resources will be revalued at the market price. This
10 will undoubtedly, with all other factors being equal, result in a higher market price for the state's
11 retail customers. Also, this will affect the price in the state for many years in the future.

12 **Q. Are there any other problems with using the sale or an auction to value utility assets?**

13 **A.** Yes. The Commission should consider that it may be difficult, with divestiture, to return the
14 net benefit to customers. The Commission would have to create a mechanism to return any
15 competitive gain to customers. Also, auctions do not automatically "get it right." Michael
16 Rothkopf^{5/} points out that the auction design would have considerable impact on the outcome. An
17 improperly designed auction could undervalue or overvalue the generation assets. The Commission
18 would need to carefully consider the sale or auction design options.^{6/} Depending on the relative
19 amount of economic and uneconomic costs and future market prices, customers may be made worse
20 off.

21 **Q. Please clarify Staff's position with respect to divestiture and the sale or auction of assets**
22 **to value uneconomic costs.**

24 ^{5/} Michael H. Rothkopf, "On Misusing Auctions to Value Stranded Assets," *The*
25 *Electricity Journal*, December 1997.

26 ^{6/} Design questions include (among many others): Should there be sealed or
27 open bidding, first or second price bidding, should the utility be allowed to bid for its own
28 assets, and what kind of Commission oversight of the process should there be? A discussion
of the advantages and disadvantages of the different sale and auction design options is
beyond the scope of this generic proceeding.

1 A. Staff is not arguing that there should or should not be divestiture of utility generating assets.
2 Rather, Staff believes that the Commission should not base its decision on whether there should or
3 should not be divestiture of utility assets based solely on valuing utility assets for purposes of
4 determining uneconomic costs. There may be valid reasons to require divestiture, but these should
5 be explored in a separate proceeding on, for example, market power.

6 If divestiture is left as being only voluntary, the utility will decide when the sale of
7 its assets makes economic sense to reduce its uneconomic costs. The utility will consider its options
8 by comparing a sale or auction (where it would choose a sale method to maximize the sale price) to
9 continuing to own the plants itself. If it decides to remain the owner, the utility has the option to
10 either have someone else operate the plants or continue to operate the plants itself, depending on
11 what it determines to be the best (that is, lowest cost) option.

12 This corresponds with Staff's position in the direct testimony on the recovery of
13 uneconomic costs, that is, the best way to mitigate uneconomic costs and the likeliest way to have
14 a truly competitive generation market⁷¹ develop is to limit recovery. In both cases, the utility is given
15 the correct economic signal to minimize uneconomic cost. Allowing full recovery of potential
16 uneconomic costs only impedes this process. If recovery of potential uneconomic cost is limited,
17 then the effect on the market price from a sale or auction described above will be less of a concern.
18 Ideally, what should occur is that what the company decides is in its own best interest, is also in the
19 customers' when it comes to the treatment of uneconomic cost.

20 **Q. Does this conclude your testimony?**

21 **A. Yes.**

22
23
24
25
26
27 ⁷¹ What is meant by "truly competitive generation market" is one where the
28 market price is determined by the interaction of suppliers and customers and is not
influenced or distorted by a single producer or group of producers seeking to raise the price
above a competitive equilibrium level.

RESPONSES OF STEVEN S. DICKERSON

Q. When did you meet with Commissioner Irvin and Jennings?

I have met with both Commissioner-Chair Irvin and Commissioner Jennings, separately, on several occasions during my tenure at the ACC. In regards to the May 19th draft of the Staff Statement of Position, I have met with Commissioner Irvin twice.

Q. Were you directed by Mr. Rose to have those meetings?

Mr. Rose directed me to meet with Commissioner-Chair Irvin to discuss the contents of the Staff Statement of Position, excluding issues related to stranded cost. On both occasions, Mr. Rose was a participant in the discussions. At the second discussion, Mr. Bullis and Mr. Ahearn were also in attendance.

What was the nature of those discussions?

Outside of the most recent meetings with Commissioner-Chair Irvin, the discussions were over general issues of retail electric competition. The most recent meetings with Commissioner-Chair Irvin focused on the contents of the Staff Position with the exception of issues related to Stranded Cost.

Q. Was divestiture discussed?

Outside of a March 11 memo addressing market structure in a competitive regime, and resulting discussions, divestiture has not been discussed. In this memo addressed to Commissioner-Chair Irvin, Commissioner Jennings, and Commissioner Kunasek and dated March 11, I also provided technical assistance by describing the fundamentals of three stranded cost calculation methods: replacement value, net revenue lost, and divestiture. In addition, I met with Commissioner-Chair Irvin and Commissioner Jennings individually, and offered to meet with Commissioner Kunasek, regarding this memo.

Q. Are you the author of the May 19th Staff Proposal?

I was just one member of large Staff group involved in the drafting of the Staff Statement of Position.

Q. Did you ever discuss the conversations you had with the Commissioners with other members of Staff?

The specifics of the conversations that I had with Commissioner-Chair Irvin and Commissioner Jennings were not shared with other Staff members.

Response From William Post from Arizona Public Service Company

RESPONSE TO COMMISSIONER KUNASEK

- Q. Have you met with with Mr. Rose on his new divestiture proposal?
- A. Yes.
- Q. Did Mr. Rose tell you that he spoke with the Commissioners and had their support his divestiture proposal?
- A. No, however Mr. Rose indicated that he had two votes for parts of his proposal excluding the stranded cost portion.
- Q. Were there other Utilities Division Staff members present?
- A. The members of the Utilities Division legal Division Staff present were Paul Bullis, Ray Williamson, Cheryl Hubbard, John Wallace, Janice Allwood, Stephen Ahern and Steve Dickerson.
- Q. Were other people there?
- A. The people who attended the meetings varied, but included Charlie Bayless, Jim Pignatelli, Steve Glaser, Jack Davis, Dick Snell and Don Robinson.
- Q. Please describe the outcome of the meeting.
- A. Staff presented their proposal and we expressed our comments and concerns.