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Arizona Corporation Commission
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Re: Docket No. U-0000-94-165

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Dear Sir or Madam:

Enclosed for filing are an original and ten copies of the direct testimony of James F. (Rick) Gilliam, Senior Technical Advisor, in the above referenced docket.

Sincerely,

Bruce Driver

Bruce Driver
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Land and Water Fund of the Rockies

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IN THE MATTER OF THE COMPETITION IN) DOCKET NO. U-0000-94-165
THE PROVISION OF ELECTRIC SERVICES)
THROUGHOUT THE STATE OF ARIZONA.)
)
_____)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the original and 10 copies of the testimony of James F. (Rick) Gilliam, Senior Technical Advisor, The Land and Water Fund of the Rockies were sent via Federal Express to Docket Control, Arizona Corporation Commission, 1200 West Washington Street, Phoenix, Arizona 85007 this 21th day of January, 1998 and a true and correct copy was sent by United States mail, first class, postage pre-paid, to the following persons:

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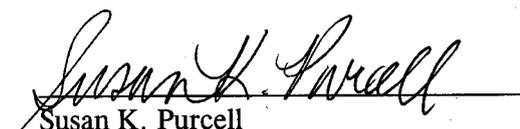
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By:


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BEFORE THE ARIZONA CORPORATION COMMISSION

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JAN 21 3 13 PM '98

JIM IRVIN
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DOCKET CONTROL

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

DOCKET NO. U-0000-94-165

TESTIMONY OF

JAMES F. (RICK) GILLIAM

ON BEHALF OF

THE LAND AND WATER FUND OF THE ROCKIES
AND THE GRAND CANYON TRUST

JANUARY 21, 1998

1 INTRODUCTION & SUMMARY

2 Q. Please state your name, your title, and whom you represent.

3 A. My name is James F. (Rick) Gilliam. I am employed by the Land and Water Fund of the
4 Rockies Energy Project (LAW Fund) as its Senior Technical Advisor. In this proceeding,
5 I am representing the LAW Fund and the Grand Canyon Trust.

6
7 Q. Please describe your responsibilities.

8 A. My responsibilities for the LAW Fund include review and analysis of existing, and the
9 development of new, statutes, regulations, policies, practices, and procedures which may
10 affect the development and promotion of electric resources less harmful to the environment
11 than traditional utility resources. In addition, I also participate in certain forums created to
12 address air quality issues, particularly in Colorado.

13
14 Q. Please summarize your background and experience in electric utility matters.

15 A. Prior to joining the LAW Fund in 1994, I was employed by Public Service Company of
16 Colorado (PSCo), an electric, gas, and thermal energy investor-owned utility, for nearly 12
17 years as its Director of Revenue Requirements. In that position, I was responsible for
18 preparing financial and regulatory studies for PSCo and its Colorado and Wyoming
19 subsidiaries. Among other things, these studies were used in formal rate proceedings, in
20 merger and acquisition decisions, and in determining project impacts. In addition, I was
21 responsible for preparing analyses depicting the separation of the electric utility into its
22 functional components.

23
24 Before joining PSCo I was employed by the Federal Energy Regulatory Commission in
25 Washington DC for six years as an engineer in its Electric Rate Investigations Division. I
26 hold a B.S. in electrical engineering from Rensselaer Polytechnic Institute in New York,
27 and am nearing completion of a Masters Degree in Environmental Policy and Management
28 from the University of Denver.

29
30 Q. Please describe the LAW Fund.

31 A. The LAW Fund is a regional non-profit environmental law center founded in 1990 to
32 provide legal and policy assistance to community groups throughout the Rocky Mountain
33 and Desert Southwest region. The LAW Fund's Energy Project was established in 1991

1 to advocate for sustainable energy policy and practices in a variety of state and national
2 forums.

3
4 Q. Please describe the Grand Canyon Trust.

5 A. The Grand Canyon Trust is a non-profit, regional conservation organization dedicated to
6 the conservation of the natural and cultural resources of the Colorado Plateau. The Trust
7 began its work in 1985, currently has 5,000 members, and is headquartered in Flagstaff,
8 Arizona, with offices in St. George and Moab, Utah. The Trust is committed to the
9 development of clean, renewable energy sources and the efficient use of our current energy
10 resources.

11
12 Q. What is the interest of the environmental groups in this proceeding?

13 A. On December 26, 1996, the Arizona Corporation Commission (ACC or the Commission)
14 issued Decision No. 59943 in this docket adopting proposed competitive electric rules as a
15 framework for the transition to a competitive environment. In that decision, the
16 Commission noted:

17 The parties were generally in agreement that competition will provide the
18 benefit of reduced costs, at least for some consumers. However, there
19 were concerns raised regarding the quality of service, as well as concerns
20 that not all customers, particularly residential customers, will receive the
21 benefits of competition as quickly as some large industrial customers.
22 And of course, the incumbent utilities were greatly concerned regarding
23 the recoverability of stranded costs.
24

25 The impact of accelerated recovery of uneconomic costs related to the production of
26 electricity in Arizona (stranded costs) is potentially so large as to overwhelm utility public
27 interest obligations and the benefits of a competitive energy market itself. We are
28 concerned that unless recovery of legitimate, unmitigated stranded costs is kept within
29 reasonable bounds, that the Commission's Restructuring Rule (the Rule) may result in a
30 rate increase, potentially squeezing out the funding for important public interest benefits.

31
32 Indeed, Tucson Electric Power (TEP) witness Gordon, in providing rationale to support
33 recovery of stranded costs (p. 7), indicates that "Unless special provision is made by
34 legislators and/or regulators, shareholders may not recover fully the funds they provided
35 the company in good faith while the old system was in effect." We respectfully point out

1 that public interest stakeholders accepted utility renewable resource goals in similar good
2 faith under the "old" systems. The utilities have fallen far short of meeting these goals.

3
4 Q. Please summarize your testimony.

5 A. My testimony addresses the calculation and rate recovery methods for stranded costs, and
6 their mitigation. These issues are critically important to public interest considerations and
7 to the success of a competitive electricity market.

8
9 With respect to the method of calculation of stranded costs, we believe full divestiture of
10 assets in the open market would provide the best result. Recognizing that the ACC may
11 not have the necessary authority to order divestiture, and that an administrative estimation
12 approach may be required, we recommend that the Commission take non-price factors into
13 consideration in determining the market value of assets potentially stranded in a
14 competitive market.

15
16 Second, a poorly designed recovery mechanism for stranded costs can have a detrimental
17 effect on the incentives for customers to use energy efficiently and consider on-site
18 distributed renewable generation. The design of the cost recovery mechanism should
19 mirror current cost-recovery practices, i.e. recover stranded costs on a demand or energy
20 basis. In addition, we recommend as the final step in the determination of stranded cost
21 recovery, that the Commission consider the amount of electricity generated by renewable
22 resources owned by the Affected Utility, consistent with R14-2-1607(I). Amounts
23 necessary to remedy any shortfalls in meeting renewable resource goals by the end of the
24 year 2000 should be funded through an increase in the System Benefits Charge and a
25 commensurate reduction in the stranded cost charge. This approach effectively eliminates
26 additional rate impacts for the Affected Utility to achieve its renewable resource targets.

27
28 Finally, several specific stranded cost mitigation methods are described which fall within
29 Rule Section R14-2-1607(A).

30
31 Q. Please describe how your testimony is organized.

32 A. Following a brief discussion of the potential magnitude of stranded costs and
33 corresponding rate impacts in Arizona, my testimony is organized consistent with the

1 issues outlined in the December 1, 1997 Procedural Order of the Chief Hearing Officer in
2 this proceeding. The following issues are addressed in order in this testimony:

- 3 3. What costs should be included as part of "stranded costs" and how should those
4 costs be calculated?
5 6. How and who should pay for "stranded costs" and who, if anyone, should be
6 excluded from paying for stranded costs?
7 9. What factors should be considered for "mitigation" of stranded costs?
8
9

10 STRANDED COSTS IN ARIZONA

11 Q. Are you aware of any estimates of stranded costs for Arizona utilities?

12 A. Yes. In August 1995, Moody's Investor Service issued a report entitled "Stranded Costs
13 Will Threaten Credit Quality of U.S. Electrics." In this report, Moody's estimated
14 stranded costs for Arizona Public Service (APS) and TEP to be about \$1.5 and \$1.2
15 billion, respectively.
16

17 Separately, the Goldwater Institute, in its recent report "The ABC's of Stranded Costs,"
18 noted three independent stranded cost estimates for APS and TEP that average \$1.29
19 billion for the former, and \$943 million for the latter. The exact figure is not critical at this
20 juncture to understand the potential impact of accelerated stranded cost recovery. Suffice
21 to say that the stranded cost estimates for the major Arizona utilities are quite large.
22

23 Q. Can you estimate the impact of stranded cost recovery on the prices charged to Arizona
24 ratepayers?

25 A. Yes. Assuming no change in the magnitude of costs being recovered, the rate impact will
26 amount to the difference in recovery methods between the current regulated system and the
27 future competitive system. The customers of the Affected Utilities are presently paying
28 through existing tariffs the costs which may be stranded in a competitive market. For
29 example, a cost, potentially stranded (i.e. uneconomic) in a competitive environment, may
30 have 30 years remaining in the current regulatory recovery system. If the recovery of this
31 cost is accelerated to a ten year time period as Staff suggests, one would expect the
32 incremental rate effect to be a threefold increase, all else being equal. The following chart
33 lays out a simplified sample calculation of the potential rate impact of accelerated stranded
34 cost recovery over periods of ten and five years.

1

		Present Rate Recovery	Stranded Cost Charge "A"	Stranded Cost Charge "B"
1	Uneconomic Cost	\$2.4 billion	\$2.4 billion	\$2.4 billion
2	Recovery period	30 Years	10 Years	5 Years
3	Annual Cost Recovery	\$80 million	\$240 million	\$480 million
4	Incremental Cost Recovery	---	\$160 million	\$400 million
5	MWh Sales	25,000,000	25,000,000	25,000,000
6	Cost/kWh	0.32¢	0.96¢	1.92¢
7	Incremental Rate Impact	---	0.64¢	1.60¢
8	Average Rate Impact - %*	---	8.5%	21.3%

2 * Assuming an average rate of 7.5¢.

3

4

5 Q.

What is the relevance of these rate impacts to the interests of the environmental community?

6

7 A.

The interests of the environmental community are generally addressed in other parts of the Rule. For example, the System Benefits Charge is a wires charge intended to recover the annual cost of demand-side management, renewable, low-income, environmental, and nuclear decommissioning programs. Estimates for the System Benefits Charge are in the range of one to two mills (excluding decommissioning), versus about 10 times that amount for the incremental increase related to the acceleration of recovery of costs potentially stranded in a competitive environment.

8

9

10

11

12

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19

20

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

21

22

23

Q. What are stranded costs?

24

A. The Rule defines stranded costs as "the verifiable net difference between:

25

- a. The value of all the prudent jurisdictional assets and obligations necessary to furnish electricity (such as generating plants, purchased power contracts, fuel

26

1 contracts, and regulatory assets), acquired or entered into prior to the adoption of
2 this Article, under traditional regulation of the Affected Utilities; and
3 b. The market value of those assets and obligations directly attributable to the
4 introduction of competition under this Article.”
5

6 Q. Do you agree with this definition?

7 A. Conceptually, yes. However, it may not be clear that the “value under traditional
8 regulation” refers to book value, and only to competitive services such as the production of
9 electricity. While necessary to furnish electricity, transmission and distribution facilities
10 will continue to be subject to traditional regulation and are not, in our view, part of the
11 stranded cost calculation. The Stranded Cost Working Group (WG) Report discusses part
12 (a) of this definition at some length, ultimately noting that the working group agreed to
13 leave the definition unchanged.
14

15 The market value (b), is obviously critical to the determination of stranded costs. It
16 received relatively little discussion in the WG Report, which focuses on the price
17 component of market value, possibly leaving the impression that market clearing price is
18 the only relevant factor necessary to determine market value. The pre-filed testimony of
19 the Affected Utilities also fails to address factors affecting market value other than price.
20 This lack of attention to other factors might lead one to believe that any cost of energy
21 supply above the marginal cost of energy (or spot price at Palo Verde) would be stranded
22 in a competitive world. This is simply not the case, as is discussed in more detail below.
23

24 Q. How can stranded costs be determined?

25 A. A subcommittee of the Working Group discussed this issue in detail, describing four
26 potential methods of calculation. Two of these are administrative, and two are market-
27 based. Without question, the best way to determine the market value of any asset is to sell
28 that asset in the marketplace. For example, the market value of a house can be estimated
29 through an appraisal (requiring consideration of many factors), or determined precisely
30 through its sale. In the electric supply industry, non-nuclear electric production assets sold
31 on the open market in New England commanded a 45% premium over book value, while
32 those of Pacific Gas and Electric in California yielded a 32% premium. Other recent
33 purchases of generation assets have generated much larger premiums.
34

1 Selling electric generation assets in the marketplace (the WG Report designates this
2 method as "auction and divestiture") not only provides an accurate measurement of the
3 actual market value, but also mitigates the market power of the incumbent utility. Such a
4 result has the potential to speed effective competition among Electric Service Providers
5 (ESPs) in Arizona.
6

7 Q. What position have the Affected Utilities taken in this proceeding?

8 A. Testimony of the Affected Utilities in this proceeding appear to favor the Net Revenues
9 Lost method of administratively estimating stranded costs, although Tucson Electric Power
10 agrees that divestiture of assets is also a feasible approach.
11

12 Q. What is the relevance of the method of stranded cost determination to the customers of the
13 incumbent utilities?

14 A. The potential impact of stranded cost recovery on Arizona ratepayers is enormous. The
15 choice of calculation method should not penalize customers. Customers should certainly
16 be no worse off, i.e. pay higher stranded cost amounts, than they would have been had a
17 full auction and divestiture taken place. In other words, ratepayers should not be required
18 to pay costs to the incumbent utility that a willing third party would pay in the market.
19 Indeed, the price that would be obtained by selling these assets on the open market should
20 effectively serve as a floor for market value.
21

22 To the extent that the incumbent utility might have sold certain assets to third parties for
23 an amount exceeding an administratively determined market value, customers effectively
24 subsidize those assets for the incumbent. Thus, the method selected for determination of
25 stranded costs must reflect the market value to the owner of those assets.
26

27 Q. This discussion focuses on the market value of generation assets to non-incumbent
28 competitive energy suppliers in the Arizona market. Is the market value the same for an
29 incumbent utility that retains ownership of these generation assets as a competitive energy
30 supplier itself?

31 A. Not necessarily. A non-incumbent competitive energy supplier will base its estimate of the
32 market value it is willing to pay for generation assets on a net present value of future cash
33 flows from the revenue related to sales of the generators output. Components of that

1 calculation include the market share (i.e. quantity or sales volume) it can achieve and the
2 price at which it can sell the output. Because incumbent utilities will likely be the default
3 providers, and can potentially charge higher prices, a similar cash flow calculation for the
4 incumbent will yield a greater value for the assets.

5
6 Q. Please explain.

7 A. A non-incumbent new entrant ESP, in estimating the amount it would be willing to pay for
8 generating assets, would probably use a market clearing price estimate as the minimum
9 rate it could charge for energy produced. It may add a premium if it believes it could
10 charge a slightly higher amount based upon its assumed effectiveness in its marketing
11 efforts, and so forth.

12
13 On the other hand, the value of those assets to an incumbent utility, based on net present
14 value of future cash flows, would also reflect the price it believes it could receive in the
15 competitive market. The incumbents however, have certain advantages that can affect the
16 market price it can command. Use of a market clearing price such as the Palo Verde Index
17 in isolation presumes that every customer would opt for the lowest price offered from any
18 energy supplier, and that in order to be competitive, incumbent utilities must recover
19 through a non-bypassable charge all costs in excess of that amount.

20
21 In all fairness, there may be a few customers, particularly large customers, that may opt
22 for the least expensive energy resource. Such large customers tend to be sophisticated
23 users of energy, having one or more employees responsible for energy management.
24 Conversely, the majority of customers, especially smaller customers, will take other factors
25 into consideration as well.

26
27 Q. What are some of these other factors?

28 A. There is a body of evidence that indicates that non-price characteristics such as reliability,
29 environmental impact, name recognition, customer awareness, degree of effort required,
30 and so forth affect customers' decisions regarding selection of an energy supplier. These
31 considerations may allow an incumbent utility to charge higher prices for the energy it
32 provides in a competitive market, thereby reducing the amount of stranded cost exposure.

1 Q. Can you explain how this may reduce stranded cost exposure?

2 A. Yes. Below are some sample assumptions and calculation of stranded cost for a
3 hypothetical utility. Recognize that the value of the sample attributes expected to be
4 considered by customers other than price are estimates for illustrative purposes only.

	(Cost or Rate per kWh)	Price Only	Other Factors
1	Incumbent Cost of Service	7.5¢	7.5¢
2	Transmission/Distribution Cost	2.0¢	2.0¢
3	Net Energy Supply Cost of Service	5.5¢	5.5¢
4	Market clearing price	3.5¢	3.5¢
5	Reliability value	---	0.2¢
6	Name recognition value	---	0.1¢
7	Customer awareness/confusion	---	0.1¢
8	Customer inertia	---	0.1¢
9	Total market value	3.5¢	4.0¢
10	Net stranded costs	2.0¢	1.5¢

5

6 This chart shows that consideration of market clearing price alone may yield a higher
7 stranded cost amount than will comprehensive consideration of other characteristics.

8 Costs are only stranded if they are not recoverable in a competitive market. To the extent
9 that an incumbent utility can command a higher price for energy sold in the competitive
10 market than the market clearing price, the market value of the related assets is also higher
11 and stranded costs are thus reduced.

12

13 Q. TEP witness Bayless proposes a much modified definition of stranded costs in this
14 proceeding. Would you care to comment on his proposal?

15 A. Yes. Mr. Bayless's definition codifies the very problem I address with respect to the
16 distinction between market value and market price. His definition, as I read it, would
17 effectively change market value to "prices based on marginal cost." Later in his testimony
18 however (at page 13), he describes the net revenues lost stranded cost calculation method
19 as using "the [revenue] amounts likely to be realized after the introduction of competition."
20 While this description implicitly recognizes the prices incumbent utilities may charge for
21 electricity in a competitive market, he goes on to equate these prices with the "market's
22 marginal costs." For all the reasons described above, this could overstate stranded costs
23 and lead to a potential windfall for incumbent utilities.

24

1 Q. Are there any other examples that might help to clarify the market value versus market
2 clearing price issue?

3 A. Yes. The telecommunications system was radically changed by the 1982 consent decree
4 requiring AT&T to divest its local operating companies. The seven regional Bell operating
5 companies were barred from providing long-distance service, but rather provided open
6 access to alternative providers of long-distance service. More than 13 years after
7 competition in the long-distance market was introduced, AT&T's share of the long-
8 distance market still exceeded 50% (second quarter of 1997), despite higher prices and
9 lack of stranded cost recovery. Clearly, a large number of customers consider factors
10 other than price in their choice (or non-choice) of an alternative carrier.

11

12 A number of these factors were identified in a 1987 survey of residents of Champaign and
13 Urbana, Illinois. Some of the characteristics relevant to these telecommunications
14 customers' choice of long-distance provider were voice transmission quality, convenience
15 of use, good customer service, low cost, stable company, range of services offered, and
16 past experience with the company. Interestingly, cost ranked fourth as a moderately or
17 very important factor to the respondents.

18

19 Q. What relevance does this have to the restructuring of the electric utility industry?

20 A. The WG Report discusses the risks of estimating market clearing price (p. 31), noting a
21 direct relationship between price and quantification of stranded costs, again implying that
22 market clearing price is equivalent to market value. It goes on to note supply-side factors
23 that can affect market price such as market structure, transmission capacity availability,
24 fuel mix, etc. It did not mention, however, factors affecting the consumer's perception of
25 value. We believe electric customers will consider non-price factors in their choice of
26 electric supplier. One would expect that a rational customer would select the lowest cost
27 provider, but for the values implicitly assigned to non-price factors. If such value exceeds
28 anticipated cost savings related to price, that customer is likely to remain a customer of the
29 incumbent. Put another way, the customer will select the "best-value" provider of energy
30 service.

31

32 Some evidence is provided by the restructuring of the California electric industry. As part
33 of the restructuring, all electric consumers receive a 10% price reduction, regardless of

1 supplier. Non-incumbent service providers may not be able to offer significant discounts
2 beyond the 10%. Thus, non-price factors may easily overwhelm price considerations. An
3 article published in the December 31, 1997 Wall Street Journal noted that only a tiny
4 percentage of California's electric consumers have opted to switch power suppliers.

5 "Barely 20,000 of the 9.9 million customers who buy their electricity from
6 the state's three big investor-owned utilities have decided to dump their
7 hometown supplier in favor of a competing company."
8

9 Q. What is your recommendation to the Commission with respect to consideration of these
10 non-price factors in this proceeding?

11 A. We recommend that the Commission consider non-price factors in its determination of
12 stranded costs for each Affected Utility, to the extent the Affected Utility seeks to use an
13 administrative approach in its stranded cost filing.
14
15

16 **6. How and who should pay for "stranded costs" and who, if anyone, should be**
17 **excluded from paying for stranded costs?**
18

19 Q. Do you have any comments with respect to the method of stranded cost recovery from
20 customers?

21 A. Yes. We believe it's important to apply the stranded cost charge, designed on a volumetric
22 basis (i.e. per kW and/or kWh), to the amount of demand and/or energy delivered by the
23 wires company to the retail energy consumer, net of any reductions related to energy
24 efficiency or on-site renewable energy resources. This encourages the customer to use the
25 energy it purchases wisely, and provides a stronger incentive for the installation of energy
26 efficiency technologies and distributed renewable energy supplies.
27

28 Q. Please explain.

29 A. When a customer is making a decision regarding replacement of existing electric devices
30 (lighting, appliances, heating, pumping, etc.), the higher cost of more efficient devices is
31 offset by the cost savings related to reduced electricity consumption. Similarly, when a
32 customer is making a decision regarding the installation of a rooftop PV panel, the cost
33 savings related to the reduction in electricity consumption offsets the cost of the panel.

34 Thus, the incentives inherent in current rate design should not be compromised.

1

2 Q. Are there other reasons to utilize a volumetric approach?

3 A. Yes. Section 1607(J) of the Restructuring Rule requires that "any reduction in electricity
4 purchases from an Affected Utility ... shall not be used to calculate or recover any
5 Stranded Cost from a consumer." The only administratively efficient way to properly
6 capture volumetric changes, i.e. demand and energy reductions, is with a volumetric
7 charge. Moreover, new technologies such as electric vehicles could place large new
8 demands for electricity on the ESPs in Arizona. A usage-based (kW and/or kWh) charge
9 that captures this new growth in use/customer will recover stranded costs at a more rapid
10 rate, potentially reducing the amortization period required, and accelerating effective
11 electricity competition.

12

13 Q. Does stranded cost recovery as a volumetric charge alone provide the incentive to
14 encourage the customer to install a solar electric resource, such as rooftop PV?

15 A. No. The Commission should assure that the energy generated by such systems does indeed
16 reduce the energy required by the customer of its ESP. This not only provides a cost
17 reduction incentive to the customer, but also obviates the need for separate metering of the
18 solar system, thereby reducing the transaction costs of installing the system.

19

20 Q. How do you suggest that the Commission assure that existing incentives are not
21 compromised?

22 A. We urge the Commission to maintain the current volumetric charge for potentially stranded
23 costs. Further, we recommend that the Commission establish a policy that solar electricity
24 generation on a customer's site be netted against that customer's energy usage, and not be
25 separately metered.

26

27 Q. Did you see anything in the testimony of the Affected Utilities that might lead you to
28 believe that anything other than a volumetric charge was contemplated?

29 A. No, I did not.

30

31 RENEWABLE GENERATING RESOURCES

32 Q. What is the relationship between stranded costs and renewable resources?

1 A. Section 1607(I) of the Restructuring Rule indicates that after hearing, the Commission, in
2 making its determination of mechanisms and charges shall consider:

3 "The amount of electricity generated by renewable generating resources
4 owned by the Affected Utility."
5

6 Thus, to the extent that an Affected Utility is progressive in its development of renewable
7 generating resources, the Commission should provide more assurance of stranded cost
8 recovery. Indeed, Affected Utilities that are perceived as "green" by electric consumers
9 are likely to have an advantage in their marketing and customer retention efforts.
10

11 Q. Is there a historical context for renewable resource development in Arizona?

12 A. Yes. In the 1993 Integrated Resource Planning Docket (No. 93-052), APS indicated that it
13 is willing to strive toward a "goal" of 12 MW for renewables by 2000 and TEP indicated
14 that it is willing to strive toward a goal of 5 MW for renewables by 2000. The
15 Commission responded in its opinion and order:

16 "We [the Commission] regard these statements as serious commitments
17 and will accept them as planning goals. However, if APS and TEP
18 appear to fall significantly short of meeting these goals, we shall
19 reconsider short-term set asides."
20

21 Q. Have the utilities fallen short of meeting these commitments?

22 A. In my opinion, they have. Moreover, TEP witness Fessler, in his testimony summary,
23 admonishes the Commission that "it is obligated to keep faith with past commitments."
24 We urge the Commission to hold utilities to the same standard.
25

26 Q. What do you recommend the Commission do in this proceeding?

27 A. We recommend that as the final step in the determination of stranded costs for these
28 utilities, the Commission project the portion of the renewable resource goals achievable by
29 the year 2000 for the Affected Utilities. To the extent that potential shortfalls of their
30 renewable resource goals are projected, the Commission can then increase the System
31 Benefits Charge to recover the amounts necessary for the Affected Utilities to achieve their
32 renewable resource goals, and reduce stranded cost recovery by an equal amount. In this
33 way, renewable resource goals can be attained without additional price burdens on
34 customers.
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9. What factors should be considered for “mitigation” of stranded costs?

Q. What does the Restructuring Rule indicate with respect to mitigation strategies which may reduce the rate impact?

A. The Restructuring Rule, in Section R14-2-1607 (A) requires the following:

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.

The WG Report categorizes mitigation strategies into two groups: cost reduction and containment, and revenue enhancement. It identifies a number of strategies noting the lack of consensus on these issues. Staff goes on to suggest that the Rules be modified to “permit each Affected Utility to independently demonstrate that their mitigation efforts were reasonable and cost-beneficial, based on all relevant facts and circumstances.”

Q. Mr. Hieronymus, witness for APS, indicated that making power markets competitive does not give utilities any material new means of mitigating or reducing costs that they didn’t have previously. Would you agree with his assessment?

A. No. Opening competitive markets, particularly at the retail level, provides huge new markets to which utilities may sell energy, thereby generating additional revenue to offset stranded costs. In addition, the potential impact of accelerated stranded cost recovery on customers demands a high level of utility diligence in seeking all means of reducing this impact.

The Rule goes beyond direct mitigation of stranded costs and suggests offsetting cost reductions as a possible mitigation strategy. Indeed, the Commission may want to investigate incentive mechanisms to promote such cost reductions, as suggested by TEP witnesses Fessler (p. 40) and Gordon (in his summary). I also reiterate that making power markets competitive provides certain advantages for the incumbent utilities as discussed above.

Q. Do you have any comments with respect to mitigation strategies?

1 A. Yes. In general I agree with Staff's recommendation, however I would like to suggest two
2 relatively painless cost reduction strategies: (1) Capturing growth benefits (a revenue
3 enhancing strategy), and (2) Extending amortization periods (a cost reduction strategy).
4 The former concept relates to the high growth in the Arizona electricity market, growth
5 that has exceeded cost growth for a number of years. Such growth provides an expanding
6 source of revenue which can help offset stranded costs.

7
8 The second method may seem counter-intuitive in some respects, but takes advantage of
9 extending amortization periods for costs already being recovered through rates. The WG
10 Report discusses a mitigation strategy of accelerated depreciation of generation assets or
11 accelerated amortization of regulatory assets. It goes on to acknowledge that cost recovery
12 must accompany the accounting change to keep investors whole. Our suggestion involves
13 a recognition of useful lives and recovery periods, and a commensurate deceleration of
14 costs.

15
16 Q. Please explain.

17 A. The useful lives of many power plants, particularly coal plants, in the West have been
18 extended with commensurate adjustment of depreciable lives. Coal-fired power plants
19 originally designed and built to last thirty years, are now continuing to operate for up to 50
20 years, and perhaps longer. Such changes in lives, when recognized in updated depreciation
21 studies, will result in substantially lower production depreciation expense, and consequent
22 reductions in stranded costs.

23
24 The suggestion for regulatory assets is conceptually similar, but easier to achieve. They
25 represent another balance sheet item with a specified amortization period. To the extent
26 that the Commission approves a longer amortization period, costs and required customer
27 revenue can be reduced. This strategy doesn't actually reduce stranded costs, but rather
28 offsets them with a separate cost reduction.

29
30 Q. Can you provide an example?

31 A. Yes. Mr. Davis indicated in his testimony that, for APS, all regulatory assets are being
32 amortized and collected through rates by 2004. He suggests that there is no need to
33 address them as stranded costs. I agree. However, with the start of competition there will

1 be five years of regulatory asset amortization remaining to be collected through tariffed
2 rates. By stretching this amortization period out to the period chosen for stranded cost
3 recovery (anything longer than five years), an annual cost reduction will occur. This
4 reduction can help offset the increase related to the acceleration of stranded cost recovery.
5 Adjustment of the amortization periods for other balance sheet items should be examined
6 as well.

7
8 Q. Do you have a recommendation?

9 A. Yes. I recommend that as an integral part of their stranded cost filings, Affected Utilities
10 be required to:

- 11 (1) estimate the potential mitigation benefits of customer and revenue growth, and
12 (2) provide an assessment of changes to amortization periods of balance sheet items
13 that may offset cost and price increases related to stranded cost recovery.

14
15 CONCLUSION/RECOMMENDATION

16 Q. Would you summarize your recommendations for language changes in the Rule?

17 A. Yes. We recommend that a new subsection (12) be added to R14-2-1607(I) which reads
18 as follows:

- 19 12. The value and effect of non-price factors on calculation of the market value
20 element of the stranded cost definition.
21

22 Q. Would you summarize your recommendations for clarifications in the Rule?

23 A. We recommend that the Commission clarify the definition of stranded cost as follows:

- 24 • the "value under traditional regulation" refers to book value, and
25 • stranded costs are derived only from costs related to the production of electricity.

26
27 We further recommend that as an integral part of their stranded cost filings, Affected
28 Utilities be required to

- 29 • include attributes other than price in any determination of market value,
30 • identify the amount of electricity (demand and energy) generated from company-
31 owned renewable resources,
32 • estimate the potential mitigation benefits of customer and revenue growth, and
33 • provide an assessment of changes to amortization periods of balance sheet items.

1

2

We also recommend that the stranded cost charge be based on demand or energy consumption, i.e. volumetric.

3

4

5

Finally, we recommend that stranded cost amounts be reduced by the dollar amounts necessary for Affected Utilities to achieve their renewable resource goals. These amounts can then be collected through the System Benefits Charge and the renewable resource goals achieved, with no incremental rate impact on customers.

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Q. Does that conclude your testimony?

11

A. Yes, it does.

12