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BEFORE THE ARIZONA CORPORATION COMMISSION

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3 WILLIAM A. MUNDELL
4 CHAIRMAN
5 JIM IRVIN
6 COMMISSIONER
7 MARC SPITZER
8 COMMISSIONER

Arizona Corporation Commission
DOCKETED
MAR 29 2002

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10 IN THE MATTER OF THE GENERIC) DOCKET NO. E-00000A-02-0051
11 PROCEEDINGS CONCERNING ELECTRIC)
12 RESTRUCTURING ISSUES

13
14 IN THE MATTER OF ARIZONA PUBLIC) DOCKET NO. E-01345A-01-0822
15 SERVICE COMPANY'S REQUEST FOR)
16 VARIANCE OF CERTAIN REQUIREMENTS)
17 OF A.A.C. R14-2-1606

18
19 IN THE MATTER OF THE GENERIC) DOCKET NO. E-00000A-01-0630
20 PROCEEDING CONCERNING THE)
21 ARIZONA INDEPENDENT SCHEDULING)
22 ADMINISTRATOR

23
24 IN THE MATTER OF TUCSON ELECTRIC) DOCKET NO. E-01933A-02-0069
25 POWER COMPANY'S APPLICATION FOR)
26 A VARIANCE OF CERTAIN ELECTRIC)
27 COMPETITION RULES COMPLIANCE)
28 DATES)

29
30 IN THE MATTER OF THE APPLICATION) DOCKET NO. E-01933A-98-0471
31 OF TUCSON ELECTRIC POWER COMPANY))
32 FOR APPROVAL OF ITS STRANDED COST)
33 RECOVERY)

34
35 **PRE-FILED DIRECT**
36 **TESTIMONY AND EXHIBITS**
37 **OF ARIZONANS FOR**
38 **ELECTRIC CHOICE**
39 **AND COMPETITION**
40

41
42 Arizonans for Electric Choice and Competition (AECC) hereby submits its Direct
43 Testimony and Exhibits concerning the APS matter in the above-captioned proceedings.
44

1 RESPECTFULLY SUBMITTED this 29th day of March, 2002.

2
3 

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13 Original and ten (10) copies of the foregoing
14 filed this 29th day of March, 2002, with:

15
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17 Arizona Corporation Commission
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19 Phoenix, Arizona 85007
20

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22 Copies of the foregoing were mailed/delivered this 29th day of March 2002 to the attached
23 service list.
24

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KCH-1..... Vitae
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1 A. Yes. I have testified in a number of proceedings, including the generic
2 proceeding on retail electric competition (1998)¹ and the hearings on the APS and
3 TEP settlement agreements (1999).²

4 **Q. Please describe your qualifications.**

5 A. My academic background is in economics, and I have completed all
6 course work and examinations toward the Ph.D. in Economics at the University of
7 Utah, and have served on the adjunct faculties of both the University of Utah and
8 Westminster College, teaching both undergraduate and graduate courses in
9 economics. I joined Energy Strategies in 1995, where I assist private and public
10 sector clients in the areas of energy-related economic and policy analysis,
11 including evaluation of electric and gas utility rate matters. In addition to my prior
12 testimony before the Arizona Corporation Commission, I have testified numerous
13 times on the subjects of electric utility cost-of-service, rate design, and industry
14 restructuring before state utility regulators in Utah, Nevada, Oregon, Washington,
15 Wyoming, Georgia, and New York.

16 Prior to joining Energy Strategies, I held policy positions in state and local
17 government. From 1983 to 1990, I was economist, then assistant director, for the
18 Utah Energy Office, where I testified regularly before the Utah Public Service
19 Commission on utility policy matters. From 1991 to 1994, I was chief of staff to
20 the chairman of the Salt Lake County Commission, one of the larger municipal
21 governments in the western U.S., where I was responsible for development and
22 implementation of a broad spectrum of public policy.

¹ Docket No. RE-00000C-94-0165.

1 A more detailed description of my qualifications is contained in Exhibit
2 KCH-1, attached to this testimony.

3 **Q. What is the purpose of your testimony in this proceeding?**

4 A. I have been asked to evaluate the two principal requests APS is making in
5 this proceeding: (1) APS's request to be granted a variance from the provision in
6 the Electric Competition Rules that requires investor-owned utility distribution
7 companies ("UDCs") to acquire at least 50 percent of the generation needed for
8 standard offer service from competitive bid; and (2) the Company's request for
9 approval of a Power Purchase Agreement ("PPA") with APS' affiliate Pinnacle
10 West Capital Corporation ("PWCC") to provide generation for standard offer
11 service (as a replacement for the competitive bid).

12 **Q. What do you conclude in your testimony?**

13 A. With respect to the requests being made by APS, I have concluded that:
14 (1) It is appropriate for the Commission to review whether the minimum bid
15 requirement is set at a level that best promotes the public interest. Upon the
16 Commission either (a) reconfirming that 50 percent is the appropriate minimum
17 level of competitive bidding requirement, or (b) determining that an alternative
18 level is more appropriate, APS should be required to comply fully with the
19 bidding provisions of the Competition Rules. My review of publicly-available
20 information concerning new power plants under construction in Arizona leads me
21 to conclude that APS' proposal to limit the bidding requirement to 270 MW in
22 2003, with an additional 270 MW each year thereafter, is, on its face, overly-

² Docket Nos. RE-00000C-94-0165, E-01345A-98-0473, E-01933A-97-0773, E-01345A-98-0471, and E-01933A-97-0772.

1 restrictive. I further recommend that Pinnacle West's new units – West Phoenix
2 and Red Hawk – not be given a competitive “free pass” (via inclusion in the PPA)
3 but should compete for APS's business. Removing these units from “Dedicated
4 Units” in the proposed PPA provides an opportunity for at least 1680 MW to be
5 competitively bid for delivery in 2004.

6 (2) To the extent that it is necessary for APS to procure generation resources to
7 serve standard offer load *beyond* the amount of the competitive bid, a power
8 purchase contract with an affiliate should be eligible for consideration; however,
9 the PPA proposed by APS would need to be significantly modified before it could
10 be construed to be a reasonable option for customers.

11 In addition, I have concluded that the APS request for a variance is
12 fundamentally concerned with the procurement of generation resources for
13 *standard offer* service. In contrast, the rights of retail customers to take *direct*
14 *access* service lie entirely outside the scope of the APS request. In hearing, and
15 potentially acting on, the APS request, the Commission should not take action that
16 would negatively impact the rights of customers to take direct access service.
17 Moreover, should the Commission approve any version of an APS power
18 purchase contract, it should be made clear that such contract does not give rise to
19 any new stranded cost claims, as all stranded cost claims have been permanently
20 resolved in the APS Settlement Agreement.³

³ The Electric Competition Rules state that “the Commission *shall limit* the application of [Stranded Cost] charges to a specified time period.” RE2-1607(E)(8). [Emphasis added] The specified time period applicable to APS is set forth in the APS Settlement Agreement, Art. III. I note that in its Request for Variance, APS correctly does *not* seek potential stranded cost treatment for its proposed PPA. Further, when asked whether the Company's position regarding stranded cost recovery would change if the PPA were approved, the Company's reply was limited to restating the stranded cost recovery provided in the APS Settlement Agreement. [APS Data Response to AECC, 1.4]

1 **Competitive bidding requirement**

2 **Q. What is your understanding of the provision in the Competition Rules that**
3 **requires competitive bidding?**

4 A. This provision was adopted in the Commission's Order issued September
5 29, 1999. It appears as R14-2-1606(B) of the Electric Competition Rules, which
6 states:

7 "After January 1, 2001, power purchased by an investor owned Utility
8 Distribution Company for Standard Offer Service shall be acquired from
9 the competitive market through prudent, arm's length transactions, and
10 with at least 50% through a competitive bid process."

11 In essence, the provision requires that *all* power for standard offer service
12 is to be procured from the competitive market, with the proviso that at least half
13 of this power must be acquired from some type of competitive bid process.

14 The effective date of this provision was delayed two years in the APS
15 Settlement Agreement, which was subsequently approved by the Commission.
16 Thus, the provision's effective date for APS is January 1, 2003.

17 **Q. What is your understanding of the purpose of this provision?**

18 A. At the time of its adoption, this provision was advanced as a means of
19 ensuring that, in the future, power procured for standard offer customers would
20 have the advantage of being competitively priced. The specific requirement that
21 50 percent must be procured from a competitive bid was something of a
22 compromise fashioned by the Commission during its September 21, 1999 Special

1 Open Meeting on the Electric Competition Rules.⁴ Some parties advocated that *all*
2 procurement for standard offer customers should be competitively bid; others
3 advocated language that required such procurement to be made from the
4 “competitive market,” but without a bid requirement per se. At that time, the
5 existing language in the Rules and the language in the Hearing Officer’s
6 recommended order required all purchases for standard offer service to be made
7 from the competitive market, but without a specific bid requirement.⁵

8 The general notion behind this provision – both with respect to the bidding
9 requirement as well as the overall requirement to purchase in the competitive
10 market – was that competitive wholesale market prices were more likely to be less
11 expensive than power purchased through a (non-arm’s-length) contract from an
12 affiliate of the UDC. Consequently, the Commission believed that requiring the
13 UDC to purchase from the competitive market would result in lower retail prices
14 for standard offer customers.

15 **Q. What is the basis for APS seeking to be largely exempt from this provision?**

16 A. In its request for variance, APS asserts that application of the bidding
17 provision would have the opposite effect of what was intended, namely that it
18 would result in higher prices to standard offer customers than would occur under
19 a long-term contract with APS’s affiliate.

20 **Q. What is your overall assessment of APS’s variance request?**

⁴ See Minutes of Special Open Meeting of the Arizona Corporation Commission, Sept. 21, 1999, pp. 19-20. I was in attendance during the special open meeting.

⁵ RE-00000C-94-0165, Recommended Order, August 26, 1999, Appendix A, p. 16, and Appendix B, pp. 27-28.

1 A. There are at least two discrete facets to the Company's request. The first is
2 whether any divergence from the current Rule is warranted. The second is, in the
3 event the requested variance from the current Rule were granted, whether the PPA
4 proposed by APS is just and reasonable and in the public interest. This latter issue
5 will be addressed in the next section of my testimony, but I will indicate here that
6 I believe the proposed PPA would require significant modification before it would
7 be a reasonable option for customers, and should only be implemented in
8 conjunction with an appropriate bidding requirement.

9 As to whether any divergence from the Rule is warranted, I believe that
10 APS has raised an issue that should be reviewed by the Commission, namely
11 whether 50 percent is the most appropriate level for the minimum bid
12 requirement. APS asserts that 50 percent is too high and will result in
13 unnecessarily high prices and diminished reliability for standard offer customers.
14 To make its case, APS cites the wholesale price volatility experienced in the
15 western U.S. during 2000-01 as evidence of the potential for price risk, and
16 asserts that there will not be enough merchant generation on line in time and in
17 the right locations to make a 50 percent bidding requirement cost-effective for
18 ratepayers.

19 As an alternative, APS proposes reducing the bidding requirement to 270
20 MW in 2003, to be increased by 270 MW each year until 2008, at which time it
21 would be expected to represent some 23 percent of the generation requirement to
22 meet APS's peak load.⁶

⁶ APS Request for a Partial Variance, pp. 9-10.

1 In my view, APS has raised a question that should be reviewed: whether
2 50 percent is an appropriate minimum bidding level for 2003 (and subsequent
3 years); however, the Company has not made a convincing case that cutting this
4 down initially by over 90 percent – to only 270 MW – is at all warranted.

5 **Q. What factors should be considered in determining whether retaining the 50**
6 **percent minimum bid requirement is in the public interest?**

7 A. The chief factor to be considered is whether a competitive bid of that
8 magnitude is likely to result in UDC power purchase prices that will be beneficial
9 to standard offer customers. The answer to this question will turn, in part, on the
10 likely availability of uncommitted generation and the ability of that generation to
11 be delivered to APS retail customers. According to APS, fulfillment of the 50
12 percent mandate would mean purchasing through competitive bid over 3000 MW
13 of generation in 2003.⁷ To achieve competitive prices, bidders should face a
14 palpable risk that “above-market” offers will not make the cut. Consequently, for
15 bidding to be viable, it would require that an amount of available and deliverable
16 generation sufficiently in excess of 3000 MW to give each bidder the incentive to
17 bid a competitive price.

18 **Q. Have you conducted a study of the uncommitted and deliverable generation?**

19 A. I have not conducted such a study, although I have reviewed publicly-
20 available information on the development of new generation resources in and
21 around Arizona. I do not have sufficient information either to confirm or refute
22 that a 50 percent bidding requirement is in the public interest, but I can reasonably

⁷ APS Request for a Partial Variance, p. 3.

1 conclude that reducing the competitive bid requirement to 270 MW in 2003 as
2 proposed by APS is overly restrictive.

3 **Q. Why do you conclude that 270 MW is overly restrictive?**

4 A. Publicly-available information indicates that 1830 MW of new generation
5 came on line in Arizona in 2001, and another 3130 MW is under construction and
6 scheduled to be on line in 2002 (excluding SRP). Further, an additional 2790 MW
7 is approved, under construction, and scheduled to come on line in 2003. (A
8 summary of plant development schedules is shown in Exhibit KCH-2.) These
9 plants are owned by a number of different parties, offering the prospect of
10 competitive diversity. Even if there is some attrition from this group, and even if
11 Mr. Davis is correct in his assertion that it is not possible to schedule all this
12 generation into APS load centers at the same time, it still appears that the
13 availability of generation to participate in a competitive bidding process will be
14 well beyond what APS has proposed – certainly with respect to 2004 and beyond.

15 Moreover, I disagree with at least part of the rationale offered by APS in
16 defending its proposal. In a data response, APS indicates that its witness Dr.
17 Landon relied upon 1998 testimony concerning the Phoenix load pocket in
18 coming to his conclusion that independent power producers would be unable to
19 provide power for APS standard offer service in amounts equal to 50 percent of
20 the load.⁸ I take exception to this rationale because the load pocket issue has
21 already been separated out and given special treatment in both the development of
22 the Arizona ISA protocols (which govern the treatment of the load pocket issue

⁸ APS Response to Arizona Competitive Power Alliance, No. 1.32

1 until an RTO is in place)⁹ and the proposed WestConnect RTO filing presently
2 before FERC.¹⁰ In both cases, there is a clear set of procedures for addressing the
3 Phoenix load pocket that can be very cleanly distinguished from the competitive
4 bid requirement. Moreover, because the Phoenix load pocket problem is present
5 for only several hundred hours per year, it is difficult to see how that could
6 present a problem in obtaining 50 percent of the *energy* required for standard
7 offer service over any appreciable period of time. Finally, to the extent that the
8 Phoenix load pocket was truly an issue at all in this matter, it would be far simpler
9 (and less controversial) to simply amend the Rule to exempt from the bidding
10 requirement any generation needed to meet load pocket requirements during
11 must-run conditions.

12 **Q. Why do you believe it is important for APS to comply with the competitive**
13 **bidding requirement to the maximum extent consistent with the public**
14 **interest?**

15 A. There are two reasons. The first is that I believe it is important for
16 standard offer customers to receive the benefit of competitive wholesale pricing –
17 and this can be achieved so long as the procurement model is structured and sized
18 properly. The second reason is that the Commission has already sent an important
19 signal to the generation development community when it established the 50
20 percent bidding requirement back in September 1999. While, in my view, the
21 interest of Arizona customers warrants the Commission’s review of the level of

⁹ See Arizona Independent Scheduling Administrator Protocols Manual, Sec. VIII, “Must-Run Generation.”

1 the bidding requirement, it is also important to recognize that a very significant
2 amount of generation has been and is being constructed in Arizona – at the
3 developers’ risk. While it is not possible for me to determine the extent to which
4 any of these developers have relied upon the Commission’s bidding requirement
5 in making their investment decisions, the fact remains that the requirement has
6 been on the books for over two years and the competitive generation development
7 that Arizona deliberately sought is indeed occurring. As a matter of public policy,
8 it is important to be mindful of the existing framework and the parameters the
9 Commission has set; any consideration the Commission gives to making changes
10 in the bidding requirement should give proper weight to the reasonable
11 expectations that have been established. Neighboring states whose energy policies
12 have been whipsawed about have suffered serious negative consequences. For
13 these reasons, I believe it is important, that once the Commission has reconfirmed
14 or re-determined the appropriate minimum bid level, standard offer providers be
15 obliged to fully comply with it.

16 **Q. What do you mean when you state that procurement model should be**
17 **“structured properly”?**

18 A. By “structured properly” I am referring to the design of the bidding
19 program. The Competition Rules offer no specificity as to design, from which I
20 infer that the standard offer provider would have the latitude to design the
21 program to maximize its value to standard offer customers.

¹⁰ See treatment of “Local Generation Resource Service” in FERC Docket Nos. RT02-1-000 and EL02-9-000, “Order No. 2000 Compliance Filing and Declaratory Order Petition,” filed by WestConnect RTO, LLC, Tariff Appendix D, *inter alia*.

1 **Q. What are some considerations in designing the bidding program to maximize**
2 **its value to standard offer customers?**

3 A. For example, for any sizable total amount to be bid, it would be unwise to
4 bid it out all at once for a single period of time (e.g., one year). Instead, one would
5 expect the standard offer provider to put together a portfolio of purchases for
6 differing amounts over differing time periods (e.g., one month to several years).
7 The bidding program should be designed to capture this needed flexibility on the
8 part of the standard offer provider.

9 Another area in which design is relevant is the benchmark by which
10 compliance with the Rule is measured. The language in the Rule provides that 50
11 percent of the “power” purchased by the UDC for standard offer service must be
12 acquired through competitive bid. It leaves open to interpretation whether this
13 means 50 percent of the “energy” (and if so, measured over what time period), 50
14 percent of the “capacity,” or 50 percent of the energy and capacity. APS indicates
15 that the Company already purchases some 1200 MW to meet summer demands.¹¹
16 It is not evident why this purchase could not be structured to conform to the
17 bidding requirement.

18 **Q. In the light of the issues you have discussed, what is your recommendation to**
19 **the Commission concerning the bidding requirement?**

20 A. The Commission should use the evidentiary record of this case, including
21 testimony from generators regarding the availability and deliverability of their
22 output, as well as their interests in the bidding program, to determine whether

¹¹ APS Data Response to Staff, 1.

1 there will be sufficient available and deliverable generation to meet the 50 percent
2 bidding requirement in a manner likely to benefit standard offer customers. If the
3 answer is affirmative, then APS should be required to comply with the bidding
4 requirement in the Rule. If the Commission determines that another minimum
5 bidding level is more appropriate, then APS should be required to comply with
6 the revised level. While I do not have sufficient information to recommend a
7 specific minimum bidding level to the Commission, publicly-available
8 information concerning new generation development in the region indicates that
9 the minimum bid amount should be well above the 270 MW proposed by APS.
10 Finally, if as I recommend below, Pinnacle West's new units – West Phoenix and
11 Red Hawk – are required to compete for APS's business, it would provide an
12 opportunity for at least 1680 MW to be competitively bid for delivery in 2004.

13 **Power Purchase Agreement**

14 **Q. Have you reviewed the PPA proposed by APS?**

15 A. Yes, I have.

16 **Q. Do you recommend its approval by the Commission?**

17 A. No, I do not.

18 **Q. Why do you oppose its approval?**

19 A. I believe the scope of the PPA is overly broad, the term for the PPA as
20 proposed is too long, and a number of the pricing features do not reasonably
21 balance the best interests of retail customers with those of Pinnacle West.

22 **Q. Are you opposed to any type of long-term affiliate contract to provide
23 generation to serve standard offer customers?**

1 A. No, I am not. I believe it may be possible to craft a long-term contract that
2 benefits both customers and the utility, but this proposal does not accomplish that.

3 **Q. What aspect of the proposed PPA is “overly-broad”?**

4 A. The proposal crowds out the ability of new generation to compete with
5 Pinnacle West to supply generation to serve APS’s standard offer load. As I
6 discussed in the previous section, APS’s proposal to severely limit the amount of
7 generation procured by competitive bid is, on its face, overly restrictive. The large
8 amount of Pinnacle West generation covered by the PPA is the flip side of that
9 restriction. Indeed, it goes beyond displacing the competitive bid requirement – it
10 covers/displaces the *remaining* 50 percent of generation that is supposed to be
11 procured from the competitive market through prudent, arm’s length transactions
12 (but not necessarily from competitive bid).

13 Another sense in which the proposed PPA is overly-broad is its inclusion
14 of Pinnacle West’s newest units, West Phoenix and Redhawk, which together
15 total around 1680 MW. I do not see why these new units should be given a
16 competitive “free pass.” Under the ground rules adopted by the Commission,
17 these units should have to compete with other suppliers to provide the resources
18 needed for the UDC’s standard offer load. The one limited exception is that some
19 of West Phoenix’s output may be covered by the Arizona ISA’s and
20 WestConnect’s “must-run” protocols (activated during load pocket conditions).
21 But this exception should be addressed on its own merit and not blended into a
22 much larger PPA.

23 **Q. What are your concerns about the term of the proposed agreement?**

1 A. The initial term is 15 years, renewable at either party's option in three
2 additional 5-year increments. This is an extremely long term, and if approved,
3 stakeholders would have to live with the deal for a generation (no pun intended).
4 Of course, the proposed term is not unlike what occurs under traditional
5 regulation when plants are added to rate base, but traditional regulation provides
6 for a much greater degree of periodic cost oversight and approval on the part of
7 the Commission. My concern about the proposed term is related, in part, to the
8 concern I have just registered about the proposed scope: it is an extremely large
9 amount of generation being purchased for an extremely long time. My concern
10 about the term would be lessened if APS were proposing a significantly-smaller,
11 cost-based PPA that was part of a portfolio that included a wider use of
12 competitive purchases as contemplated in the Rule. In addition, I believe that any
13 term renewals should require Commission approval.

14 **Q. Please identify the pricing features to which you object.**

15 A. One feature that is problematic is the straight fuel cost pass-through from
16 PWCC to APS. While I recognize the need to adjust for fuel cost changes in a
17 long-term contract, I am concerned that a 100 percent pass-through of actual fuel
18 costs would diminish the incentive of Pinnacle West to operate at least cost. If a
19 long-term agreement is adopted, an alternative approach to this problem, such as a
20 fuel cost adjustment outside a dead band, should be considered.

21 Another objection I have is the structure of the off-system sales credit.
22 Under the proposed PPA, APS (and its ratepayers) are obligated to pay the full
23 (and considerable) fixed costs of the Dedicated Assets, which are dedicated to

1 meet load that is projected to have a 51 percent load factor. When these assets are
2 not needed to meet APS's load, Pinnacle West is free to use them – clear of fixed
3 cost responsibility – for sales to third parties. In exchange, Pinnacle West returns
4 to APS just 25 percent of the margin on these transactions.

5 If APS customers are carrying the full fixed cost burden, then they are
6 entitled to the lion's share of the margin on third-party sales, on the order of 75 to
7 90 percent. The remainder could then flow to Pinnacle West to provide some
8 economic incentive to make these sales. An alternative approach would be to
9 reduce the allocation of fixed costs to APS standard offer customers in proportion
10 to the projected level of Pinnacle West's third-party sales; this allocation would
11 be adjusted every three years to coincide with the fixed-cost adjustment schedule
12 proposed in the PPA.

13 Finally, I have not verified whether the methodology and calculations used
14 by APS to derive the fixed cost charges in the proposed PPA are reasonable. APS
15 considers the plant-by-plant cost components to be confidential, and it has not
16 been made available to me for review. Consequently I cannot support the fixed
17 cost charge approach proposed by APS unless and until I have had the
18 opportunity to conduct such a review. In any case, at a minimum, costs associated
19 with the new West Phoenix and Red Hawk units should be removed from the
20 fixed and variable costs in the proposed PPA.

21 **Q. Is there an approach to a power purchase agreement that you would view as**
22 **providing a reasonable basis for consideration?**

1 A. Yes. APS has raised a number of concerns regarding the prudence of
2 complying with Rule 1606(B), and has made a case that the public interest would
3 best be served by entering into a long-term, cost-based contract with for
4 generation resources that utilize a variety of fuels. In my view, once the bidding
5 requirement is either reconfirmed or reset by the Commission (at a level
6 significantly higher than proposed by APS), it may be prudent to entertain a long-
7 term, cost-based power purchase agreement to supply a portion of the remaining
8 standard offer generation needs using resources currently in the APS rate base.
9 Such an approach would balance the price volatility concerns raised by APS with
10 the need to ensure that an appropriate share of the generation needed for standard
11 offer service is acquired through competitive bid.

12 **Direct access issues**

13 **Q. Does the APS request for a variance attempt to change any aspect of direct**
14 **access service?**

15 A. No, it does not. The APS request for a variance is fundamentally
16 concerned with the procurement of generation resources for *standard offer*
17 service. In contrast, the rights of retail customers to take *direct access* service lie
18 entirely outside the scope of the APS request.

19 **Q. Should any changes to the Competition Rules or settlement agreements**
20 **pertaining to direct access service be contemplated as part of the**
21 **Commission's consideration of APS's variances request?**

22 A. No. In hearing, and potentially acting on, the APS request, I strongly
23 recommend that the Commission *not* take any action that would negatively impact

1 the rights of customers to take direct access service. Moreover, should the
2 Commission approve any version of an APS power purchase contract, it should be
3 made clear that such contract does not give rise to any new stranded cost claims,
4 as all stranded cost claims have been permanently resolved in the APS Settlement
5 Agreement.

6 **Q. Does this conclude your direct testimony?**

7 A. Yes, it does.

KEVIN C. HIGGINS
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Vitae

PROFESSIONAL EXPERIENCE

Principal, Energy Strategies, L.L.C., Salt Lake City, Utah, January 2000 to present. Responsible for energy-related economic and policy analysis, regulatory intervention, and strategic negotiation on behalf of industrial, commercial, and public sector interests. Previously Senior Associate, February 1995 to December 1999.

Adjunct Instructor in Economics, Westminster College, Salt Lake City, Utah, September 1981 to May 1982; September 1987 to May 1995. Taught in the economics and M.B.A. programs. Awarded Adjunct Professor of the Year, Gore School of Business, 1990-91.

Chief of Staff to the Chairman, Salt Lake County Board of Commissioners, Salt Lake City, Utah, January 1991 to January 1995. Senior executive responsibility for all matters of county government, including formulation and execution of public policy, delivery of approximately 140 government services, budget adoption and fiscal management (over \$300 million), strategic planning, coordination with elected officials, and communication with consultants and media.

Assistant Director, Utah Energy Office, Utah Department of Natural Resources, Salt Lake City, Utah, August 1985 to January 1991. Directed the agency's resource development section, which provided energy policy analysis to the Governor, implemented state energy development policy, coordinated state energy data collection and dissemination, and managed energy technology demonstration programs. Position responsibilities included policy formulation and implementation, design and administration of energy technology demonstration programs, strategic management of the agency's interventions before the Utah Public Service Commission, budget preparation, and staff development. Supervised a staff of economists, engineers, and policy analysts, and served as lead economist on selected projects.

Utility Economist, Utah Energy Office, January 1985 to August 1985. Provided policy and economic analysis pertaining to energy conservation and resource development, with an emphasis on utility issues. Testified before the state Public Service Commission as an expert witness in cases related to the above.

Acting Assistant Director, Utah Energy Office, June 1984 to January 1985. Same responsibilities as Assistant Director identified above.

Research Economist, Utah Energy Office, October 1983 to June 1984. Provided economic analysis pertaining to renewable energy resource development and utility issues. Experience includes preparation of testimony, development of strategy, and appearance as an expert witness for the Energy Office before the Utah PSC.

Operations Research Assistant, Corporate Modeling and Operations Research Department, Utah Power and Light Company, Salt Lake City, Utah, May 1983 to September 1983. Primary area of responsibility: designing and conducting energy load forecasts.

Instructor in Economics, University of Utah, Salt Lake City, Utah, January 1982 to April 1983. Taught intermediate microeconomics, principles of macroeconomics, and economics as a social science.

Teacher, Vernon-Verona-Sherrill School District, Verona, New York, September 1976 to June 1978.

EDUCATION

Ph.D. Candidate, Economics, University of Utah (coursework and exams completed, 1981).

Fields of Specialization: Public Finance, Urban and Regional Economics, Economic Development, International Economics, History of Economic Doctrines.

Bachelor of Science, Education, State University of New York at Plattsburgh, 1976 (cum laude).

Danish International Studies Program, University of Copenhagen, 1975.

SCHOLARSHIPS AND FELLOWSHIPS

University Research Fellow, University of Utah, Salt Lake City, Utah 1982 to 1983.

Research Fellow, Institute of Human Resources Management, University of Utah, 1980 to 1982.

Teaching Fellow, Economics Department, University of Utah, 1978 to 1980.

New York State Regents Scholar, 1972 to 1976.

EXPERT TESTIMONY

“In the Matter of Savannah Electric & Power Company’s 2001 Rate Case,” Georgia Public Service Commission, Docket No. 14618-U. Direct testimony submitted March 15, 2002.

“Nevada Power Company’s 2001 Deferred Energy Case,” Public Utilities Commission of Nevada, PUCN 01-11029. Direct testimony submitted February 7, 2002. Cross examined February 21, 2002.

“2001 Puget Sound Energy Interim Rate Case,” Washington Utilities and Transportation Commission, Docket Nos. UE-011570 and UE-011571. Direct testimony submitted January 30, 2002. Cross examined February 20, 2002.

“In the Matter of Georgia Power Company’s 2001 Rate Case,” Georgia Public Service Commission, Docket No. 1400-U. Direct testimony submitted October 12, 2001. Cross examined October 24, 2001.

“In the Matter of the Application of PacifiCorp for Approval of Its Proposed Electric Rate Schedules and Electric Service Regulations,” Utah Public Service Commission, Docket No. 01-35-01. Direct testimony submitted June 15, 2001. Rebuttal testimony submitted August 31, 2001.

“In the Matter of Portland General Electric Company’s Revised Tariff Schedules for Electric Service in Oregon, Advice 00-14,” Public Utility Commission of Oregon, Docket No. UE-115. Direct testimony submitted February 20, 2001. Rebuttal testimony submitted May 4, 2001. Joint testimony regarding stipulation submitted July 27, 2001.

“In the Matter of the Application of APS Energy Services, Inc. for Declaratory Order or Waiver of the Electric Competition Rules,” Arizona Corporation Commission, Docket No. E-01933A-00-0486. Direct testimony submitted July 24, 2000.

“In the Matter of the Application of Questar Gas Company for an Increase in Rates and Charges,” Utah Public Service Commission, Docket No. 99-057-20. Direct testimony submitted April 19, 2000. Rebuttal testimony submitted May 24, 2000. Surrebuttal testimony submitted May 31, 2000. Cross examined June 6 & 8, 2000.

“In the Matter of the Application of Columbus Southern Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues,” Public Utility Commission of Ohio, Case No. 99-1729-EL-ETP; “In the Matter of the Application of Ohio Power Company for Approval of Electric Transition Plan and Application for Receipt of

Transition Revenues,” Public Utility Commission of Ohio, Case No. 99-1730-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected May 2, 2000.

“In the Matter of the Application of FirstEnergy Corp. on Behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company for Approval of Their Transition Plans and for Authorization to Collect Transition Revenues,” Public Utility Commission of Ohio, Case No. 99-1212-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected April 11, 2000.

“2000 Pricing Process,” Salt River Project Board of Directors, oral comments provided March 6, 2000 and April 10, 2000.

“Tucson Electric Power Company vs. Cyprus Sierrita Corporation,” Arizona Corporation Commission, Docket No. E-000001-99-0243. Direct testimony submitted October 25, 1999. Cross examined November 4, 1999.

“Application of Hildale City and Intermountain Municipal Gas Association for an Order Granting Access for Transportation of Interstate Natural Gas over the Pipelines of Questar Gas Company for Hildale, Utah,” Utah Public Service Commission, Docket No. 98-057-01. Rebuttal testimony submitted August 30, 1999.

“In the Matter of the Application by Arizona Electric Power Cooperative, Inc. for Approval of Its Filing as to Regulatory Assets and Transition Revenues,” Arizona Corporation Commission, Docket No. E-01773A-98-0470. Direct testimony submitted July 30, 1999. Cross examined February 28, 2000.

“In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery,” Arizona Corporation Commission, Docket No. E-01933A-98-0471; “In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01933A-97-0772; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted June 30, 1999. Rebuttal testimony submitted August 6, 1999. Cross examined August 11-13, 1999.

“In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery,” Arizona Corporation Commission, Docket No. E-01345A-98-0473; “In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01345A-97-0773; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted June 4, 1999. Rebuttal testimony submitted July 12, 1999. Cross examined July 14, 1999.

“In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery,” Arizona Corporation Commission, Docket No. E-01933A-98-0471; “In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01933A-97-0772; “In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery,” Docket No. E-01345A-98-0473; “In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01345A-97-0773; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted November 30, 1998.

“Hearings on Pricing,” Salt River Project Board of Directors, written and oral comments provided November 9, 1998.

“Hearings on Customer Choice,” Salt River Project Board of Directors, written and oral comments provided June 22, 1998; June 29, 1998; July 9, 1998; August 7, 1998; and August 14, 1998.

“In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Arizona Corporation Commission, Docket No. U-0000-94-165. Direct and rebuttal testimony filed January 21, 1998. Second rebuttal testimony filed February 4, 1998. Cross examined February 25, 1998.

“In the Matter of Consolidated Edison Company of New York, Inc.’s Plans for (1) Electric Rate/Restructuring Pursuant to Opinion No. 96-12; and (2) the Formation of a Holding Company Pursuant to PSL, Sections 70, 108, and 110, and Certain Related Transactions,” New York Public Service Commission, Case 96-E-0897. Direct testimony filed April 9, 1997. Cross examined May 5, 1997.

“In the Matter of the Petition of Sunnyside Cogeneration Associates for Enforcement of Contract Provisions,” Utah Public Service Commission, Docket No. 96-2018-01. Direct testimony submitted July 8, 1996.

“Questar Pipeline Company,” Federal Energy Regulatory Commission, Docket No. RP95-407. Direct testimony prepared, but withheld subject to settlement. Settlement approved July 1, 1996.

“In the Matter of Arizona Public Service Company’s Rate Reduction Agreement,” Arizona Corporation Commission, Docket No. U-1345-95-491. Direct testimony prepared, but withheld consequent to issue resolution. Agreement approved April 18, 1996.

“In the Matter of the Application of PacifiCorp, dba Pacific Power & Light Company, for Approval of Revised Tariff Schedules and an Alternative Form of Regulation Plan,” Wyoming Public Service Commission, Docket No. 2000-ER-95-99. Direct testimony submitted April 8, 1996.

“In the Matter of the Application of Mountain Fuel Supply Company for an Increase in Rates and Charges,” Utah Public Service Commission, Case No. 95-057-02. Direct testimony submitted June 19, 1995. Rebuttal testimony submitted July 25, 1995. Surrebuttal testimony submitted August 1995.

“In the Matter of the Investigation of the Reasonableness of the Rates and Tariffs of Mountain Fuel Supply Company,” Utah Public Service Commission, Case No. 89-057-15. Direct testimony submitted July 1990. Surrebuttal testimony submitted August 1990.

“In the Matter of the Review of the Rates of Utah Power and Light Company pursuant to The Order in Case No. 87-035-27,” Utah Public Service Commission, Case No. 89-035-10. Rebuttal testimony submitted November 15, 1989. Cross examined December 1, 1989 (rate schedule changes for state facilities).

“In the Matter of the Application of Utah Power & Light Company and PC/UP&L Merging Corp. (to be renamed PacifiCorp) for an Order Authorizing the Merger of Utah Power & Light Company and PacifiCorp into PC/UP&L Merging Corp. and Authorizing the Issuance of Securities, Adoption of Tariffs, and Transfer of Certificates of Public Convenience and Necessity and Authorities in Connection Therewith,” Utah Public Service Commission, Case No. 87-035-27; Direct testimony submitted April 11, 1988. Cross examined May 12, 1988 (economic impact of UP&L merger with PacifiCorp).

“In the Matter of the Application of Mountain Fuel Supply Company for Approval of Interruptible Industrial Transportation Rates,” Utah Public Service Commission, Case No. 86-057-07. Direct testimony submitted January 15, 1988. Cross examined March 30, 1988.

“In the Matter of the Application of Utah Power and Light Company for an Order Approving a Power Purchase Agreement,” Utah Public Service Commission, Case No. 87-035-18. Oral testimony delivered July 8, 1987.

“Cogeneration: Small Power Production,” Federal Energy Regulatory Commission, Docket No. RM87-12-000. Statement delivered March 27, 1987, on behalf of State of Utah, in San Francisco.

“In the Matter of the Investigation of Rates for Backup, Maintenance, Supplementary, and Standby Power for Utah Power and Light Company,” Utah Public Service Commission, Case No.

86-035-13. Direct testimony submitted January 5, 1987. Case settled by stipulation approved August 1987.

“In the Matter of the Application of Sunnyside Cogeneration Associates for Approval of the Cogeneration Power Purchase Agreement,” Utah Public Service Commission, Case No. 86-2018-01. Rebuttal testimony submitted July 16, 1986. Cross examined July 17, 1986.

“In the Matter of the Investigation of Demand-Side Alternatives to Capacity Expansion for Electric Utilities,” Utah Public Service Commission, Case No. 84-999-20. Direct testimony submitted June 17, 1985. Rebuttal testimony submitted July 29, 1985. Cross examined August 19, 1985.

“In the Matter of the Implementation of Rules Governing Cogeneration and Small Power Production in Utah,” Utah Public Service Commission, Case No. 80-999-06, pp. 1293-1318. Direct testimony submitted January 13, 1984 (avoided costs), May 9, 1986 (security for leveled contracts) and November 17, 1986 (avoided costs); cross-examined February 29, 1984 (avoided costs), April 11, 1985 (standard form contracts), May 22-23, 1986 (security for leveled contracts) and December 16-17, 1986 (avoided costs).

OTHER RELATED ACTIVITY

Board of Directors, ex-officio, Desert STAR RTO, September 1999 to February 2002.

Advisory Committee, Desert STAR RTO, September 1999 to February 2002. Acting Chairman, October 2000 to February 2002.

Board of Directors, Arizona Independent Scheduling Administrator Association, October 1998 to present.

Acting Chairman, Operating Committee, Arizona Independent Scheduling Administrator Association, October 1998 to June 1999.

Member, Desert Star ISO Investigation Working Groups: Operations, Pricing, and Governance, April 1997 to present. Legal & Negotiating Committee, April 1999 to December 1999.

Participant, Independent System Operator and Spot Market Working Group, Arizona Corporation Commission, April 1997 to September 1997.

Participant, Unbundled Services and Standard Offer Working Group, Arizona Corporation Commission, April 1997 to October 1997.

Participant, Customer Selection Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Stranded Cost Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Electric System Reliability & Safety Working Group, Arizona Corporation Commission, November 1996 to present.

Consultant to business customers, "In the Matter of Competition in the Provision of Electric Services Throughout the State of Arizona," Arizona Corporation Commission, Docket No. U-0000-94-165. Preparation of comments and participation in staff workshops. Rule on retail electric competition adopted December 23, 1996.

Chairman, Salt Palace Renovation and Expansion Committee, Salt Lake County/State of Utah/Salt Lake City, multi-government entity responsible for implementation of planning, design, finance, and construction of an \$85 million renovation of the Salt Palace Convention Center, Salt Lake City, Utah, May 1991 to December 1994.

State of Utah Representative, Committee on Regional Electric Power Cooperation, a joint effort of the Western Interstate Energy Board and the Western Conference of Public Service Commissioners, January 1987 to December 1990.

Member, Utah Governor's Economic Coordinating Committee, January 1987 to December 1990.

Chairman, Standard Contract Task Force, established by Utah Public Service Commission to address contractual problems relating to qualifying facility sales under PURPA, March 1986 to December 1990.

Chairman, Load Management and Energy Conservation Task Force, Utah Public Service Commission, August 1985 to December 1990.

Alternate delegate for Utah, Western Interstate Energy Board, Denver, Colorado, August 1985 to December 1990.

Articles Editor, Economic Forum, September 1980 to August 1981.

PROPOSED GENERATION IN ARIZONA

Status	0	0	0	1	1	1	1	1	1	1	1	6
Operation Date	Online	Online	Online	Jun-02	Jun-02	Jun-02	Jun-02	Jun-02	Jun-02	Jun-02	Jun-02	Aug-02
Developer /Owner	Reliant	Duke	Online	PinWest	Panda	PPL	SRP	Pinnacle West	Pinnacle West	Panda	Duke	Calhoun
Plant Name	Desert Basin	South Point	Griffith Energy	W. Phoenix Phase 1	Gila River #1	Sundance Energy, #1	Kyrene	Redhawk #1	Redhawk #2	Gila River #2	Arlington Valley #1	Big Sandy Phase 1
Plant Type	CC	CC	CC	CC	CC	CT	CC	CC	CC	CC	CC	CC
MW	520	540	650	120	520	450	250	530	530	520	580	500

Category of Project Status	Total													
	2001	2002	2003	2004	2005	2006	2007	2001	2002	2003	2004	2005	2006	2007
0 Commercial Operation	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830
1 Under Construction	-	3,380	6,170	6,170	6,170	6,170	6,170	6,170	6,170	6,170	6,170	6,170	6,170	6,170
2 Regulatory Approval Received	-	-	1,640	3,745	5,070	5,070	5,070	5,070	5,070	5,070	5,070	5,070	5,070	5,070
3 Application Under Review	-	-	520	1,060	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
4 Application Filed	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5 Announced	-	-	520	520	520	520	520	520	520	520	520	520	520	520
6 Suspended or Denied Approval	-	500	1,920	2,500	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,320
Subtotal	1,830	5,710	12,600	15,825	18,290	18,910	18,910	18,910	18,910	18,910	18,910	18,910	18,910	22,160

Less Suspended/Denied	-	(500)	(1,920)	(2,500)	(3,100)	(3,100)	(3,100)	(3,100)	(3,100)	(3,100)	(3,100)	(3,100)	(3,100)	(3,320)
TOTALS	1,830	5,210	10,680	13,325	15,190	15,810	15,810	15,810	15,810	15,810	15,810	15,810	15,810	18,840

Aggregated Categories	Total													
	2001	2002	2003	2004	2005	2006	2007	2001	2002	2003	2004	2005	2006	2007
Commercial Operation	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830
Under Construction	8,000	5,210	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Regulatory Approval Received	14,220	5,210	9,640	11,745	13,070	13,070	13,070	13,070	13,070	13,070	13,070	13,070	13,070	14,220
Application Under Review	15,820	5,210	10,160	12,805	14,670	15,290	15,290	15,290	15,290	15,290	15,290	15,290	15,290	15,820
Application Filed	15,820	5,210	10,160	12,805	14,670	15,290	15,290	15,290	15,290	15,290	15,290	15,290	15,290	15,820
Announced	18,840	5,210	10,680	13,325	15,190	15,810	15,810	15,810	15,810	15,810	15,810	15,810	15,810	18,840
Suspended or Denied Approval	22,160	5,710	12,600	15,825	18,290	18,910	18,910	18,910	18,910	18,910	18,910	18,910	18,910	22,160

Primary Sources: Arizona Corporation Commission, California Energy Commission

Month	Year	Project Name	Capacity (MW)	Technology	Company	Month	Year	Project Name	Capacity (MW)	Technology	Company	Month	Year	Project Name	Capacity (MW)	Technology	Company
Jan-03		Panda	520	CC	Gila River #4	Jan-03		Panda	520	CC	Gila River #4	Jan-03		Panda	520	CC	Gila River #4
Jan-03		Gila River #3	520	CC		Jan-03		Gila River #3	520	CC		Jan-03		Gila River #3	520	CC	
Mar-03		Mesquite Power Plant	1250	CC		Mar-03		Mesquite Power Plant	1250	CC		Mar-03		Mesquite Power Plant	1250	CC	
Jun-03		PinWest	500	CC	W. Phoenix Phase 2	Jun-03		PinWest	500	CC	W. Phoenix Phase 2	Jun-03		PinWest	500	CC	W. Phoenix Phase 2
Jun-03		Duke	600	CC	Arlington Valley #2	Jun-03		Duke	600	CC	Arlington Valley #2	Jun-03		Duke	600	CC	Arlington Valley #2
Jun-03		Littlefield AZ	520	CC	Beaver Dam	Jun-03		Littlefield AZ	520	CC	Beaver Dam	Jun-03		Littlefield AZ	520	CC	Beaver Dam
Jul-03		Wellton-Mohawk District	520	CC	Wellton-Mohawk	Jul-03		Wellton-Mohawk District	520	CC	Wellton-Mohawk	Jul-03		Wellton-Mohawk District	520	CC	Wellton-Mohawk
Jun-03		Harquahata Generating Company LLC	1040	CC	Harquahata	Jun-03		Harquahata Generating Company LLC	1040	CC	Harquahata	Jun-03		Harquahata Generating Company LLC	1040	CC	Harquahata
Sep-03		Southwestern Power Group II	1200	CC	Tollac Phase 1	Sep-03		Southwestern Power Group II	1200	CC	Tollac Phase 1	Sep-03		Southwestern Power Group II	1200	CC	Tollac Phase 1
Dec-03		Southwestern Power Group II	220	CC	Big Sandy Phase 2	Dec-03		Southwestern Power Group II	220	CC	Big Sandy Phase 2	Dec-03		Southwestern Power Group II	220	CC	Big Sandy Phase 2
Jan-04		Southwestern Power Group II	500	CC	Bowie #1	Jan-04		Southwestern Power Group II	500	CC	Bowie #1	Jan-04		Southwestern Power Group II	500	CC	Bowie #1
Jun-04		Gila Bend Power Partners, LLC	845	CC	Gila Bend	Jun-04		Gila Bend Power Partners, LLC	845	CC	Gila Bend	Jun-04		Gila Bend Power Partners, LLC	845	CC	Gila Bend
Jun-04		Springerville #3	380	Fossil	Springerville #3	Jun-04		Springerville #3	380	Fossil	Springerville #3	Jun-04		Springerville #3	380	Fossil	Springerville #3
Jun-04		Springerville #4	380	Fossil	Springerville #4	Jun-04		Springerville #4	380	Fossil	Springerville #4	Jun-04		Springerville #4	380	Fossil	Springerville #4
Jun-04		Reliant	560	CC	Desert Basin #2	Jun-04		Reliant	560	CC	Desert Basin #2	Jun-04		Reliant	560	CC	Desert Basin #2

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