

**BEFORE THE ARIZONA CORPORATION COMMISSION**

WILLIAM A. MUNDELL

Chairman

JIM IRVIN

Commissioner

MARC SPITZER

Commissioner

IN THE MATTER OF THE APPLICATION OF ) DOCKET NO. E-01345A-02-0707  
ARIZONA PUBLIC SERVICE COMPANY FOR )  
AN ORDER OR ORDERS AUTHORIZING IT TO )  
ISSUE, INCUR, OR ASSUME EVIDENCES OF )  
LONG-TERM INDEBTEDNESS; TO ACQUIRE A )  
FINANCIAL INTEREST OR INTERESTS IN AN )  
AFFILIATE OR AFFILIATES; AND TO )  
GUARANTEE THE OBLIGATIONS OF AN )  
AFFILIATE OR AFFILIATES )

DIRECT

TESTIMONY

OF

JOHN S. THORNTON, JR.

CHIEF, FINANCIAL & REGULATORY ANALYSIS SECTION

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

DECEMBER 13, 2002

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**EXECUTIVE SUMMARY**  
**ARIZONA PUBLIC SERVICE COMPANY**  
**DOCKET NO. E-01345A-02-0707**

On September 11, 2002, Arizona Public Service Co. (“APS”) filed an application pursuant to Arizona Revised Statutes (“ARS”) §§ 40-285, 40-301, *et seq.* and Arizona Administrative Code (“AAC”) R-14-2-804 for authority to borrow \$500,000,000 of debt and lend it to Pinnacle West Capital Corp. (“PWCC”) or Pinnacle West Energy Corp (“PWEC”). The application also requests authority to guarantee PWCC or PWEC obligations in the same amount, or a combination of loans and guarantees. On October 11, 2002, APS filed testimony by Mr. Arthur H. Tildesley and Ms. Barbara M. Gomez in support of the application.

The primary goal of the loan or guarantee is to refinance or facilitate the refinancing of Bridge Debt incurred by PWCC to construction finance PWEC assets. That Bridge Debt must be largely refinanced in 2003. APS asserts that neither PWCC nor PWEC is in a position to issue public debt to refinance the maturing Bridge Debt without an APS guarantee, or otherwise by simply borrowing from APS who would issue debt publicly.

APS asserts that the application was filed to address the “serious and unique financial harm faced by APS, PWEC, and Pinnacle West as a result of the Commission’s ‘reversal of course’ on the issue of APS generation and divestiture.” Staff does not view the Commission’s actions as the cause of PWEC’s near-term capital requirements and this application. PWEC faces problems endemic in the merchant energy sector.

Staff finds that APS should be authorized to issue and sell \$500,000,000 of debt and to loan the proceeds to PWEC pursuant to seven conditions. Staff does not recommend that APS be authorized to loan proceeds to PWCC. Nor does staff recommend a guarantee of either PWEC or PWCC debt.

## **SERVICE LIST**

***(THE SERVICE LIST FOR TESTIMONY IS GENERALLY HANDLED BY THE LEGAL DIVISION.)***

1 **INTRODUCTION**

2 **Q. Please state your name, occupation, and business address.**

3 A. My name is John S. Thornton, Jr. I am the Chief of the Financial and Regulatory Analysis  
4 Section of the Utilities Division (“Staff”), Arizona Corporation Commission (“ACC” or  
5 “Commission”). My business address is 1200 West Washington Street, Phoenix, Arizona  
6 85007.

7  
8 **Q. Please describe your educational background and professional experience.**

9 A. See my Witness Qualifications Statement, attached as Exhibit JST-1 to JST-2.

10  
11 **Q. What is the purpose of your testimony?**

12 A. The purpose of my testimony is to respond to Arizona Public Service Company’s (“APS”)  
13 application, filed on September 11, 2002, for approval to issue debt for the purpose of  
14 lending the proceeds to Pinnacle West Capital Corporation (“PWCC”) or Pinnacle West  
15 Energy Corporation (“PWEC”); or to guarantee PWCC/PWEC’s debt, or both. I also  
16 address APS’ testimonies filed by Mr. Arthur H. Tildesley and Ms. Barbara M. Gomez,  
17 filed on October 11, 2002.

18  
19 **SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS**

20 **Q. Briefly summarize your conclusions and recommendations.**

21 A. I conclude that the Commission should only authorize APS to issue debt in order to loan  
22 the proceeds to PWEC. APS has significant needs for capital for regulated utility  
23 operations over the coming years and issuing debt to loan to PWEC or PWCC will  
24 diminish APS’ ability (bonding capacity) to obtain APS’ own required debt capital.  
25 Therefore, conditions are necessary to mitigate any harm.  
26

1 **ANALYSIS**

2 **Q. Please generally describe the transactions for which APS seeks authority.**

3 A. APS seeks authority to engage in one or a combination of the following activities:

4 (1) Financing proposal: APS issues \$500,000,000 of secured or unsecured debt  
5 and loans the proceeds to PWEC or PWCC.

6 (2) Guarantee proposal: APS guarantees \$500,000,000 of PWEC or PWCC debt  
7 that those entities would issue independently.

8  
9 **Financial Markets' Reaction and Regulatory Insulation**

10 **Q. How would the financial markets generally view the effect on APS' stand-alone**  
11 **credit quality of a \$500,000,000 loan to PWEC/PWCC, or a guarantee of**  
12 **PWCC/PWEC debt in the same amount.**

13 A. The financial markets, notably the rating agencies, generally would favor a regulated  
14 public utility being increasingly insulated from the non-regulated activities of a parent or  
15 its affiliates, and this insulation translates into better credit ratings for the regulated public  
16 utility. APS' proposal would increasingly mix APS' regulated activities with PWCC's  
17 nonregulated activities. Below is a quote from Standard & Poor's:

18  
19 Talk of isolating a utility from the parent company's unregulated activities could  
20 be signaling a trend that greater regulation of utilities is back in vogue, which is  
21 quite the opposite of one of the reasons — less regulation — why electric  
22 restructuring was instituted. Standard & Poor's Ratings Services has long-held a  
23 view of a lack of regulatory insulation from nonregulated operations and  
24 diminishing regulatory support for utility credit quality, which has caused many  
25 ratings downgrades over the past few years. **Therefore, any action that state**  
26 **regulators take that provides support (whether legal, regulatory, financial, or**  
27 **operational) to the utility and/or isolates the utility (most importantly**  
28 **financial obligations) from its parent company will be positive for**  
29 **credit....Thus, credit ratings of regulated utility companies are affected by the**  
30 **parent company's nonregulated businesses. Only when sufficient regulatory**  
31 **insulation exists will the corporate credit rating (risk of default) of an**  
32 **operating company be separated from that of the holding company.**  
33

(emphasis added)

1  
2  
3 APS' request to borrow money to loan PWEC/PWCC runs counter to the goal of insulating  
4 APS from its holding company's nonregulated activities. I attach the full Standard & Poor's  
5 report as Exhibit JST-3 to JST-4. The Commission should pursue the goal of regulatory  
6 insulation in this docket.

7  
8 **Comment on ACC Actions and the Application**

9 **Q. Is the situation PWEC faces unique to it or actions taken by the ACC?**

10 A. No, this situation is not unique to PWEC and the ACC. A S&P report, included as exhibit  
11 JST-5 to JST-8, indicates that the United States has faced an unprecedented level of power  
12 plant construction that was financed with short-term construction or "mini-perm"  
13 financings. S&P estimates that about \$30,000,000,000 to \$50,000,000,000 of construction  
14 or mini-perm financings will mature and have to be successfully refinanced in the 2003-  
15 2007 period. S&P reports that according to one source, about 80 gigawatts of electric  
16 capacity were completed or [were] in some form of construction over the past three years.  
17 PWEC chose to finance its construction with near-term debt, and it faces problems  
18 endemic in the merchant energy sector.

19  
20 **Financing Proposal**

21 **Q. What are the standards by which the Commission evaluates a financing application?**

22 A. The standards are found in Arizona Revised Statute 40-301(C):

23  
24 The commission shall not make any order or supplemental order granting any  
25 application as provided by this article unless it finds that such issue is for lawful  
26 purposes which are within the corporate powers of the applicant, are compatible  
27 with the public interest, with sound financial practices, and with the proper  
28 performance by the applicant of service as a public service corporation and will not  
29 impair its ability to perform that service.

1 **Q. Please address Staff's analysis of the standards and the facts of this case. Is the**  
2 **financing proposal for lawful purposes?**

3 A. I am not a lawyer, but I do not understand the purposes to be unlawful. However, from a  
4 regulator's point of view, borrowing capital to lend to an affiliate is not obviously  
5 consistent with the provision of utility service. Below, I discuss how the transaction could  
6 be considered consistent with provision of utility service because the transaction  
7 eventually supports APS' credit rating by providing support to its affiliates.

8  
9 **Q. Is the financing proposal compatible with the public interest?**

10 A. I do not perceive the financing proposal as obviously compatible with the public interest  
11 without Commission conditions because APS would be incurring a large liability when it  
12 needs to seek and obtain debt capital for its own utility-related capital expenditures. I  
13 discuss APS' capital investment requirements below. However, PWCC has indicated that  
14 if PWCC/PWEC do not secure a loan or guarantee from APS then PWCC's credit ratings  
15 will fall. That decline would drag down APS' ratings as well. The requested  
16 authorization would, therefore, be consistent with the public interest if it ultimately helped  
17 to prevent a decline in APS' credit ratings.

18  
19 The public interest standard is also cited in Arizona Administrative Code R-14-2-806, the  
20 rule that governs waiving Arizona Administrative Code R-14-2-804 under which the  
21 application was filed.

22  
23 **Q. Is the financing proposal compatible with sound financial principles?**

24 A. The proposed financing is not obviously consistent with sound financial principles  
25 because APS would be taking on \$500,000,000 of debt without any corresponding utility  
26 assets. It will receive a note from PWEC or PWCC and payments that should cover the  
27 note's interest and principal. However, it is not necessarily a sound financial practice for

1 APS to use its bonding capacity (the extent to which APS can issue secured debt) for the  
2 purpose of purely investing in an affiliate without any business purpose consistent with  
3 APS' primary mission. The financing can be more likely expected to impair APS' ability  
4 to perform its service than to improve it. The impairment comes about because APS has a  
5 limited bonding capacity or ceiling within which it can issue debt. Bonding capacity is  
6 explicitly dictated by debt covenants and implicitly by the capital markets. APS' issuance  
7 of \$500,000,000 in addition to its existing \$2,200,754,000<sup>1</sup> represents an approximate 22  
8 percent increase in debt without any corresponding increase in revenue-producing utility  
9 assets.

10  
11 **Q. Is the financing proposal compatible with the proper performance by the applicant**  
12 **of service as a public service corporation and will the financing not impair APS'**  
13 **ability to perform that service?**

14 A. The financing is not obviously compatible with APS' proper performance as a *public*  
15 *service company* without conditions because APS is not primarily in the banking business,  
16 which is essentially the activity it requests in this docket through the financing request.  
17 However, as I discussed above in addressing the public interest, the transaction could be  
18 considered consistent with provision of utility service because the transaction eventually  
19 supports APS' credit rating by providing support to its affiliates. In this light, the  
20 transaction could be considered compatible with APS' public service obligation.

21  
22 **Q. Does APS have capital expenditure requirements of its own for which it needs its**  
23 **bonding capacity?**

24 A. Yes. APS has significant expected capital expenditures on "delivery" (transmission,  
25 distribution, etc.) in order to serve native load. I do not recommend that the Commission  
26 encourage APS to impair the utility's ability to properly finance its capital expenditures

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<sup>1</sup> Source: APS' form 10-Q filed on November 14, 2002, with the SEC for the period ending September 30, 2002.

1 into the future by issuing debt on behalf of PWEC or PWCC without significant  
2 conditions.

3  
4 **Q. Are PWCC and PWEC already implicitly subsidized by APS?**

5 A. Yes. PWCC and PWEC are already provided a certain amount of credit support from  
6 APS through the holding company structure. Practically speaking, the markets are aware  
7 that PWCC has access to APS' cash flows and the markets rate PWCC accordingly.  
8 PWEC benefits as well by being owned by PWCC and can draw on APS through PWCC.  
9 Contractually locking in that implicit cross subsidization with an explicit loan agreement  
10 would be a step backward for public policy without mitigating conditions.

11  
12 **Q. What would be an outcome if PWCC or PWEC defaulted on their debts to APS?**

13 A. APS would have to continue to make the interest and principle payments on the  
14 \$500,000,000 of debt it issued to the market and APS would have a \$500,000,000 non-  
15 performing asset on its books. The application is vague on whether the loan from APS to  
16 PWCC or PWEC will be secured by PWEC's assets or not. Moreover, PWEC is expected  
17 to pay a \$500,000,000 dividend to PWCC and will not, therefore, have cash on hand to  
18 repay the debt. PWEC could default on its loan to APS and yet PWEC could retain the  
19 assets. The debt and the assets should normally be held by the same enterprise to be  
20 consistent with sound financial principles.

21  
22 **Q. Should APS theoretically lend money to PWEC at APS' borrowing rate or at a rate  
23 consistent with PWEC's competitive-market cost of debt?**

24 A. APS should earn a return on any investment commensurate with that investment's risk. If  
25 PWEC's debt rating is below investment grade then APS should theoretically lend money  
26 to PWEC at PWEC's competitive-market below-investment-grade cost of debt. The  
27 spread between APS' lower cost of borrowed funds and PWEC's higher cost of borrowed

1 funds is simply compensation for risk to make APS whole on an expected basis. The  
2 PWEC market-based interest rate should be applied on the note even if APS lends to  
3 PWCC so that the appropriate risk is isolated and priced accordingly. Staff does not  
4 recommend a loan to PWCC, however. I proposal a condition to address my concern that  
5 specifies a specific interest rate spread above APS' cost of debt. The 264 basis-point  
6 spread<sup>2</sup> that I propose incorporates an implicit BB- rating for PWEC. The BB- (S&P)  
7 rating is at the low end of the BB series and is below investment grade, resulting in a  
8 significantly higher coupon on the APS loan to PWEC than on the APS debt to the public.  
9

#### 10 **Guarantee Proposal**

11 **Q. What are the standards by which the Commission can approve the guarantee?**

12 A. The guarantee operates much like an evidence of indebtedness, so its standards would be  
13 the same as found in Arizona Revised Statute § 40-301(C) that I discussed above. In  
14 addition, the guarantee might encumber utility assets.  
15

16 **Q. What exact terms does APS propose for the guarantee and what do you recommend  
17 regarding its authorization?**

18 A. The guarantee is undefined and unpriced in the application. By unpriced I mean that the  
19 nature of compensation for the guarantee is unaddressed. This lack of definition makes  
20 the guarantee proposal untenable at this time. Staff prefers an explicit loan at a stated  
21 interest rate that appropriately prices the risk to which APS is exposed.  
22

#### 23 **COMMENT ON THE TESTIMONY OF ARTHUR H. TILDESLEY**

24 **Q. What is the purpose of Mr. Tildesley's testimony?**

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<sup>2</sup> I calculated the 264 basis -point spread from Bloomberg data on the difference in spreads above Treasury between BB-rated securities (PWEC's implied rating at a 383-point spread) and BBB2-rated securities (APS' rating at a 119-point spread). The data are likely for unsecured spreads which would increase for strictly BB- but decrease for a security interest. Therefore, Staff takes the resulting calculation to be a not unrepresentative proxy for a BB- secured spread. Staff could amend this calculation if it obtains more recent or better data closer to hearing.

1 A. The purpose of Mr. Tildesley's testimony is to answer four questions regarding the impact  
2 of the loan or guarantee on APS. He concludes that PWEC is unable to raise significant  
3 debt financing on a stand-alone or non-recourse basis and that APS has sufficient (indeed  
4 "excess") credit capacity to provide a \$500 million loan or guarantee to PWEC without  
5 impairing the fundamental utility credit quality. (See testimony of Arthur Tildesley, pages  
6 5 and 9.)

7

8 **Q. Do you agree with Mr. Tildesley's conclusions?**

9 A. No, I do not agree with Mr. Tildesley's conclusions. I find that the potential reduction in  
10 APS' financial ratios is significant and would negatively impact the Company.

11

12 **Q. On page 5 of his testimony, Mr. Tildesley states, "Under current market conditions,  
13 PWEC would be unable to raise significant debt financing on a standalone or non-  
14 recourse basis." Did you inquire into the basis of his statement?**

15 A. Yes, I did. I found that his statement was not supported by any documentation of PWEC  
16 efforts to raise significant debt financing. Rather, Mr. Tildesley relied on Solomon Smith  
17 Barney's existing and accumulated knowledge. (See Exhibit JST-9.)

18

19 **Q. Has Solomon Smith Barney published any credit reports on APS, PWEC, or PWCC?**

20 A. No, Solomon Smith Barney has not published any credit reports for the companies over  
21 the past three years. This lack of established research and publication calls into question  
22 Solomon Smith Barney's qualification to make a current credit finding before the  
23 Commission. (See Exhibit JST-10.)

24

25 **Q. What evidence does Mr. Tildesley offer to support his claim that "Our analysis  
26 indicates that APS business fundamentals and credit statistics are strong, and  
27 we believe that APS has sufficient credit capacity to provide an intercompany**

1           **loan or guarantee to PWEC in the amount of \$500 million without impairing**  
 2           **fundamental utility credit quality.” (See Testimony of Arthur Tildesley, page**  
 3           **9.)**

4           A. He presents certain credit statistics for APS compared to S&P benchmarks, reproduced  
 5           below:

6           **Figure 2. Credit Statistics for APS**

Credit Ratio	Actual Credit Ratio	Credit Ratio Pro Forma for \$500 Million Intercompany Debt	Credit Ratio Pro Forma for \$500 Million Guarantee	S&P Benchmark for BBB Rating, Business Profile 3
FFO Interest Coverage	4.0x	3.6x	3.5x	2.1x - 3.1x
FFO / Total Debt	17.2%	14.9%	14.2%	14% -20%
Total Debt / Total Capitalizator	56.6%	60.6%	60.6%	53% - 61%
EBIT / Interest	4.5x	3.2x	3.2x	1.8x -2.8x

7  
 8           Source: APS public filings and Standard & Poor’s.

9           Based on APS balance sheet data as of 6/30/2002 and the FFO and Interest for the 12 months  
 10          ended 6/30/2002.

11  
 12          I find that a *decline* in credit quality is demonstrated in Mr. Tildesley’s credit indicator  
 13          calculations. The mere fact that the resulting credit statistics remain above the S&P  
 14          benchmarks does not mean that credit quality has not been harmed; rather, it simply means  
 15          that APS would likely not face an immediate rating downgrade. I view the potential  
 16          decline in EBIT/Interest ratio from 4.5x to 3.2x to be particularly significant and  
 17          meaningful.

18  
 19          **Q. On page 11 of his direct testimony, Mr. Tildesley states, “Our analysis confirms**  
 20          **that APS has excess debt capacity sufficient to allow it to borrow**  
 21          **approximately \$500 million without significant impact on the current credit**  
 22          **quality of APS.” What analysis did he do to support his conclusion, and how**  
 23          **much excess debt capacity does APS have?**

1 A. Mr. Tildesley's analysis appears limited to the table of statistics above. He cannot  
2 quantify how much excess debt capacity APS currently has. (See exhibit JST-11 to JST-  
3 13.)

4

5 **Q. Mr. Tildesley also concludes on page 11 of his testimony that the credit quality of**  
6 **PWCC will suffer if PWEC is not able to obtain new financing on a non-recourse**  
7 **basis. He also states that PWEC does not have access to third-party debt financing**  
8 **on a non-recourse basis in any meaningful amount. How do you respond?**

9 A. His statements, as I have discussed, are speculative and unsupported by documentation.

10

11 **COMMENT ON THE TESTIMONY OF BARBARA M. GOMEZ**

12 **Q. What is the purpose of Ms. Gomez' testimony?**

13 A. The purpose of Ms. Gomez' testimony is to show that PWEC required transfer of APS'  
14 assets in order to sustain an investment-grade debt rating and that APS has significant  
15 unutilized financing capability to borrow from the markets and lend to PWCC or PWEC.  
16 (See testimony of Barbara Gomez, page 2 at 16 and page 4 at 1.)

17

18 **Q. Do you necessarily agree that the Commission's decision to prevent the transfer of**  
19 **assets from APS to PWEC caused PWEC/PWCC's need to request the authority to**  
20 **borrow from APS?**

21 A. No, I do not. PWEC might have transferred the assets to APS and received payment from  
22 APS, subsequently using the payment to pay off the Bridge Debt. PWCC freely chose the  
23 terms and maturity of the Bridge Debt and agreed to them when that debt was first issued.  
24 PWEC's choice of maturity has caused the sizeable refunding obligation to occur in 2003,  
25 rather than any particular ACC action.

26

1 **Q. What evidence does Ms. Gomez present to demonstrate that the proposed financing**  
2 **will not impair APS' ability to issue debt for its own purposes?**

3 A. Ms. Gomez presents a financial analysis in her exhibit BMG-3 that shows no effect on  
4 APS if it issued \$500,000,000 of debt and lend it to PWEC/PWCC.

5  
6 **Q. Do you agree with her analysis?**

7 A. No, I do not. Her analysis shows that borrowing \$500,000,000 from the market and  
8 lending it to PWEC/PWCC is a "wash" transaction having no effect on APS' financial  
9 ratios. Under this analysis, APS could borrow and relend infinite amounts of debt as long  
10 as the lending rate was equal to the borrowing rate. I do not agree that the market would  
11 allow APS to enter into such transactions without an eventual decrease in its bond rating  
12 and, finally, an impairment of its access to capital.

13  
14 **CONDITIONS OF APPROVAL**

15 **Q. What conditions do you propose the Commission adopt in authorizing APS to**  
16 **borrow up to \$500,000,000 and lend it to PWEC?**

17 A. I propose the following conditions:

18 (1) APS should be authorized to issue and sell no more than \$500,000,000 of debt in  
19 addition to its current authorizations.

20 (2) The debt to be lent to PWEC should be no more than \$500,000,000 of secured callable  
21 notes from PWEC. The security interest shall be on the same terms as the security  
22 interest APS already has pursuant to the \$125,000,000 loan authorization from  
23 Decision No. 65434.

24 (3) The PWEC secured note coupon shall be 264 basis points above the coupon on APS  
25 debt issued and sold on equivalent terms (including but not limited to maturity and  
26 security).

- 1           (4) The difference in interest income and interest expense should be capitalized as a  
2                     deferred credit and used to offset rates in the future. The deferred credit balance shall  
3                     bear an interest rate of 6 percent.
- 4           (5) The PWEC debt's maturity shall not to exceed 4 years, unless otherwise ordered by  
5                     the Commission.
- 6           (6) Any demonstrable increase in APS' cost of capital as a result of the transaction (such  
7                     as from a decline in bond rating) will be extracted from future rate cases.
- 8           (7) APS shall maintain a minimum common equity ratio of 40 percent and shall not be  
9                     allowed to pay dividends if such payment would reduce its common equity ratio  
10                    below this threshold, unless otherwise waived by the Commission. The Commission  
11                    will process the waiver within sixty days, and for this sixty-day period this condition  
12                    shall be suspended. However, this condition shall not be permanently waived without  
13                    an order of the Commission.

14

15   **Q.     What is Staff's recommendation regarding the guarantee?**

16   A.     The guarantee was not well defined in the application and remains unclear as to APS'  
17            actual liability and how such liability would be priced or enforced. Staff recommends that  
18            the guarantee option be denied. The loan option is clear, defined, and explicitly  
19            compensates APS for its risk exposure through a market-based mechanism (a rate of  
20            return on its investment in PWEC consistent with PWEC's presumed bond rating and  
21            market rates). Staff might consider recommending a guarantee if it were more clearly  
22            defined and priced. However, Staff does not believe that the guarantee is APS' preferred  
23            option, so such authorization might be moot.

24

25   **Regulatory Insulation**

26   **Q.     What are conditions six and seven intended to accomplish?**

1 A. Conditions six and seven are intended to establish some regulatory insulation between  
2 APS and PWCC. In Order No. 65434, Docket No. E-01345A-02-0840, the Commission  
3 indicated that it would examine regulatory insulation measures in this docket.  
4

5 **Q. Do you recommend that conditions six and seven continue until further order of the**  
6 **Commission?**

7 A. Yes, I do. Conditions six and seven should continue indefinitely in order to rectify the  
8 regulatory insulation problem that aggravated the current circumstances.  
9

10 **Q. What is APS' current capital structure?**

11 A. APS had approximately 50 percent debt, 50 percent equity as of September 30, 2002,  
12 according to its "10-Q" filing with the Securities and Exchange Commission. The 40  
13 percent minimum equity threshold allows for a significant margin from APS' current  
14 position but is a meaningful threshold to provide some regulatory insulation.  
15

16 **Q. What would APS' capital structure be if it were to issue and sell an additional**  
17 **\$500,000,000 of debt?**

18 A. APS' capital structure would be approximately 55 percent debt and 45 percent equity.  
19

20 **Q. Do you consider a 55 percent debt/45 percent equity capital structure appropriate**  
21 **for a regulated electric utility?**

22 A. Yes, I view the resulting capital structure as appropriate.  
23

24 **Q. Have you had an opportunity to discuss the application with APS?**

25 A. Yes, I have had several occasions to discuss the application with APS to understand,  
26 analyze, clarify, and narrow the issues in this case.  
27

1 **CONCLUSIONS AND RECOMMENDATION**

2 **Q. What do you conclude from your review of the Company's application and testimony**  
3 **and your own independent analysis?**

4 A. I conclude that APS should be granted authority to issue and sell no more than  
5 \$500,000,000 of debt and to lend the proceeds to PWEC subject to the conditions I discuss  
6 above.

7

8 **Q. What is the appropriate long-term outcome for the financing and refinancing PWEC**  
9 **assets if they are to remain independent of APS?**

10 A. PWCC should issue debt or equity and infuse PWEC with capital if it wants to capitalize  
11 this non-regulated unit as a going concern. The capitalization of PWEC should not, in the  
12 long run, directly involve APS if PWEC is to remain independent.

13

14 **Q. Does this conclude your prepared direct testimony?**

15 A. Yes, it does.

## Witness Qualifications Statement

NAME: JOHN S. THORNTON, JR.

ADDRESS: 1200 West Washington St. Phoenix, AZ 85007

EDUCATION: Master of Science Degree from the University of London, having completed the graduate program in economics at The London School of Economics and Political Science (1986)

Graduate Diploma in Economics from The London School of Economics (1985).

Bachelor of Arts degree, major in economics, from Willamette University (1984).

Certified Rate of Return Analyst, member of the Society of Utility and Regulatory Financial Analysts.

1998 passed level I of the CFA  
1995 PaineWebber Seminar on Corporate Finance for the Utility Industry.  
1990 MIT/Harvard Public Disputes Resolution Program seminar.  
1990 National Association of Regulatory Utility Commissioners (NARUC) Advanced Regulatory Studies Program.  
1988 NARUC Annual Regulatory Studies Program.

EXPERIENCE: Chief, Accounting & Rates, Arizona Corporation Commission, 2001 to present.

Senior Analyst with the Public Utility Commission of Oregon, 1988-2001.

Testified or provided rate of return analyses in the following dockets:  
UE 102—PGE disaggregation/general rate case (chief rate of return witness).  
UE 94—PacifiCorp general rate case (chief rate of return witness).  
UE 93 (UM 592, UM 694)—Portland General Electric Co. excess power cost/Coyote/BPA filing.  
UE 92—Idaho Power general rate case.  
UE 88—Portland General Electric Co. general rate case (chief rate of return witness).  
UE 85/UM 529—Portland General Electric Co. Earnings test for Trojan Shutdown Cost Adjustment Account.  
UE 84—Idaho Power Co. deferred account earnings benchmark.  
UE 82/UM 445—Trojan Outage Cost Adjustment Account earnings test benchmark.  
UE79—Portland General Electric Co. general rate case (chief rate of return witness).  
UG 104/UG 105/UG 106—LDC deferred account earnings test benchmarks.

**Witness Qualifications Statement (continued)**

UG88—Cascade Natural Gas Co. general rate case (chief rate of return witness).

UG81—Northwest Natural Gas Co. general rate case (chief rate of return witness).

UT 125—US WEST Communications, Inc general rate case (chief rate of return witness).

UT 113—GTE Northwest general rate case (chief rate of return witness).

UT101—United Telephone Co. of the Northwest general rate case (chief rate of return witness).

UT85—US WEST general rate case (capital structure and debt cost witness).

RP95-409—Northwest Pipeline general rate case (FERC).

RP93-5—Northwest Pipeline general rate case (FERC).

Responsibilities have also included the following:

Analyses and recommendations in over fifty financing dockets.

UM 903— Northwest Natural, cost of capital analysis for purchased gas adjustment mechanism

UM 21—Cost of capital analysis for avoided cost calculations.

UM 351—Cost of capital analysis for long-run incremental-cost studies.

UM 573—Analysis of purchased power on the utility's cost of capital.

UM 773—Cost of capital analysis for long-run incremental-cost studies.

UM 814—Enron's application to acquire Portland General Electric Co..

UM 918—Scottish Power plc's application to acquire PacifiCorp.

UM 967—Sierra Pacific Resource's application to acquire Portland General Electric Co.

Speaker—US Agency for International Development's Conference on Private Sector Participation in the Colombian Power Sector.

Presented beta adjustment and distribution risk discount testimony on behalf of the Division of Ratepayer Advocates of the California Public Utility Commission, Application Nos. 98-05-019, 021, & 024.

Rate of return witness for Mirage Resorts, Inc., Park Place Entertainment Corp., and the Mandalay Group, Sierra Pacific Power Co. compliance filing docket no. 99-4001 and Nevada Power Co. compliance filing no. 99-4005.

Corporate finance witness for the Industrial Customers of Northwest Utilities, docket no. UE 010395, Avista Utilities.

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## Is State Utility Regulation Coming Back Into Vogue?

Credit Analyst: William Ferrara, New York (1) 212-438-7667

Recent inquiries by regulators suggest U.S. state utility commissions are starting to pay more attention to the relationship between a utility holding company's regulated and nonregulated businesses, likely because of problems experienced by certain diversified energy companies. Coupled with vociferous opposition from western and southern states over FERC transmission initiatives, it appears that utility regulation may be moving to the forefront, which could be beneficial for credit quality at the operating company level.

Talk of isolating a utility from the parent company's unregulated activities could be signaling a trend that greater regulation of utilities is back in vogue, which is quite the opposite of one of the reasons--less regulation--why electric restructuring was instituted. Standard & Poor's Ratings Services has long-held a view of a lack of regulatory insulation from nonregulated operations and diminishing regulatory support for utility credit quality, which has caused many ratings downgrades over the past few years. Therefore, any action that state regulators take that provides support (whether legal, regulatory, financial, or operational) to the utility and/or isolates the utility (most importantly financial obligations) from its parent company will be positive for credit.

Although not all regulated utilities have been affected by the troubles at their affiliate companies, in view of the harsh consequences inflicted on utilities in certain cases, Standard & Poor's believes it is quite likely that state regulators will be placing even greater emphasis on "protecting" the utilities they regulate. For instance, in the ongoing probe of Westar Energy Inc, members of the Kansas Corporation Commission are considering some form of break-up of the company's unregulated and utility operations to protect ratepayers. In Minnesota, during hearings to examine the possible spillover of NRG Energy Inc.'s financial problems onto utility ratepayers, state regulators said they are considering drafting measures at establishing a stronger financial barrier between parent company Xcel Energy Inc.'s regulated and unregulated businesses. Both cases represent a desire by state regulators to protect ratepayers by ensuring the utility is run prudently.

Standard & Poor's view of what constitutes sufficient regulatory insulation has evolved given the ongoing business mix shift by utility holding companies toward nonregulated investments throughout the 1990s. Importantly, ratings are based on the qualitative and quantitative fundamentals of the consolidated entity, not just any one individual subsidiary. Thus, credit ratings of regulated utility companies are affected by the parent company's nonregulated businesses. Only when sufficient regulatory insulations exists will the corporate credit rating (risk of default) of an operating company be separated from that of the holding company.

In Standard & Poor's view, insulation brought about by legislative statutes is a great deal more certain than state utility commission rulemaking and will ultimately provide for greater ratings separation. Notably, most state regulators maintain their state or

commission has explicit laws or regulations in place that provide sufficient authority to prevent the financial condition of the utility from being adversely affected by the activities of nonregulated affiliates. However, from a credit perspective, Standard & Poor's believes most of these laws and regulations to be reactive measures; they do not prevent the diversified businesses from weakening the regulated business. These rules typically enable state regulators to take action only after the damage has occurred. Examples of active regulation include measures that meaningfully and timely restrict the flow of the utility's cash to its parent company, such as overhead allocation, loan and dividend restrictions, and stringent equity-maintenance requirements.

Exhibit 10  
10/16/07

State utility commissions are also drawing battle lines against the FERC's effort for some standard market design for the nation's transmission infrastructure. In a Standard & Poor's survey, most state regulators, as expected, feel that the states have the proper jurisdiction over retail transmission, and not the FERC, claiming state oversight provides the best way to oversee transmission issues, including transmission siting. The most important issues confronting state regulation of utilities revolve around transmission--reliability and adequacy, siting, and general regulatory issues. The reliability and transmission adequacy problems experienced by California, Massachusetts, and Illinois, all of which were at the forefront of electric deregulation, have made not just regulators, but also politicians and ratepayers, highly sensitized on how to assure electric reliability in a restructured industry.

Although Standard & Poor's views the future rating trend of the electric industry to be decidedly negative, with insufficient regulated authorized returns and expanding nonregulated investments providing the most downward pressure, the credit quality of electric utilities on a stand-alone basis could show signs of stabilization if they are increasingly sheltered by state regulators. Elevated scrutiny of the general well being of a utility company, specifically its exposure within an energy holding company, indicates a gradual return to stronger utility regulation and could calm the deterioration in credit quality experienced in the industry. This attitude from state regulators, which is quite different from their earlier thinking that a parent's nonregulated activities had little or no impact on the utility company, is absolutely more reasonable. Today, the average power industry credit rating is approximately 'BBB+' versus 'A'/'A-' five years ago, with slightly less than one-half of the industry now carrying a 'BBB' category rating.

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*Setting The Standard.*

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## Refinancing Risk in the U.S. Power Sector--The Preponderance of "Mini-Perm" Debt

Credit Analyst: Arleen Spangler, New York (1) 212-438-2098

### Construction Boom Financed With Short-Term Debt

### Were the Original Valuation Assumptions Flawed?

### Who's At Risk?

Liquidity has always been important in credit analysis, and has increasingly become a critical component in evaluating the credit quality of the U.S. energy merchant sector. The rapid erosion of many energy merchants' credit quality has been spurred by a lack of adequate liquidity in the face of deteriorating industry fundamentals (in particular, low wholesale energy prices, oversupply of capacity, low demand growth, and low equity valuations).

These weakening fundamentals have resulted in the need for enhanced liquidity to manage through the downward price cycle. Because the energy merchant sector is a relatively new industry paradigm with little historical data, it has yet to be determined just how deep and how long a downward power price cycle may last.

Exacerbating the increased business risk in this sector is the unprecedented level of power plant construction that was financed with short-term construction, or, "mini-perm," financings. The traditional use of long-term project financing for unregulated generation has evolved into short-term mini-perm bank loans of up to five years with expected bond takeouts. The use of this financing technique is driven by the sponsors' desire for the cheapest source of capital and the banks' desire for the shortest loan tenor.

Given the increased business risk, how will the sector successfully refinance about \$30 billion to \$50 billion of construction or mini-perm financings maturing from 2003 to 2006? Standard & Poor's Ratings Services views the refinancing of mini-perm debt as one of the largest risks facing many of the energy merchants. If weak market conditions continue, the ability to refinance these loans may prove challenging. The mini-perm structure typically protects the banks by incorporating a 100% cash sweep and/or increased pricing to encourage refinancing. Although these structural features may protect lenders, they hamper the sponsor's credit quality by not allowing them access to much needed cash flow from these investments or forcing a refinancing at adverse times.

### **Construction Boom Financed With Short-Term Debt**

According to RDI Consulting, about 80 gigawatts of electric capacity were completed or in some form of construction or development in the past three years. This unprecedented level of power plant construction led to overbuilding in most regions of the U.S. The overcapacity will eventually be worked down through demand growth or retirement of older, less-efficient

generating units. However, in the short term, neither of the risks is likely to occur to the extent necessary to encourage investors to lend eagerly to this sector. With the backdrop of overcapacity, slow demand growth, and about 65% of the generating capacity still in the hands of regulated utilities, the energy merchant sector may experience many years of low wholesale prices. Some industry consultants do not expect a recovery in wholesale prices for several years—perhaps even as far as 2007 or 2008.

Mini-perm financings are typically used as a tool for income-producing projects that need to establish an operating history prior to obtaining long-term permanent financing. The concept is sound in that the banks, which are better able to handle construction risk, finance the construction and early years of a project's operations. Once the project establishes a solid track record, it can typically secure permanent financing. Mini-perms typically have very little principal repayment during their term, but have a large balloon payment at the end of the term.

In the energy merchant sector, many of the mini-perm loans were made at a time when projections for power prices were robust; this led most lenders to assume that refinancing would be easy. The assumption was that after a few years, the project would have an adequate operating history and the ability to secure permanent financing in the capital markets would be straightforward. Furthermore, if refinancing was not successful, the mini-perm structure allowed the banks a 100% cash sweep, higher pricing (higher interest rates), and a security interest in the asset. Assuming the plant was successfully built, the banks argued that refinancing risk was manageable.

There are two problems with this logic. First, the banks assumed that valuations for power plants would remain stable at high enough levels to secure refinancing, and second, that the capital markets would remain open for these types of investments. The valuations used to originally finance these projects may be significantly less with the weakened outlook for power prices. In addition, it has yet to be determined if the capital markets will swallow the long-term risk of merchant power plants. Although there are some fully merchant transactions that were financed in the bond market (e.g., AES Eastern Energy L.P. and Edison Mission Energy (Homer City)), industry fundamentals have changed significantly since those transactions were completed.

Furthermore, as noted, the sheer magnitude of the amounts that require refinancing in the next few years, coupled with current questions about market receptivity, raises serious concerns.

Although the mini-perm structure encourages refinancing with 100% cash sweep mechanisms and increased pricing after a certain date, the estimates for generating cash flow may be revised given a less rosy picture of long-term wholesale power prices. Faced with this bleak outlook, banks may have no choice but to extend maturities to prevent defaults. Standard & Poor's notes that once banks begin to exert control over these assets, sponsors may be faced with weakening financial profiles as many have relied on cash flow from these projects to service corporate debt. If poor market conditions persist or worsen, sponsors may not see a return on these investments for many years to come—or at least until an adequate level of debt is repaid.

**Were the Original Valuation Assumptions Flawed?**

During the past 10 years, energy merchants have had unprecedented access to capital. In 2001 alone, there was about \$40 billion worth of power financings. These financings were completed based on valuations of power plants that assumed they would contribute positive cash flow after servicing a heavy debt burden. The loans were made when power prices were high and the outlook for the economy was robust. Consultants hired to forecast expected power prices came up with a host of assumptions that appeared reasonable at the time, including rational behavior from market participants, retirements of old, inefficient generating units, and an efficient, fully deregulated power market. Independent power producers, utilities, and regulators throughout the U.S. do not want a repeat of the California power crisis. Thus, they have increased reserve margin requirements, dissuading firms from retiring older, less-efficient plants. They also have postponed or severely delayed any movement toward deregulation. The main assumption used to make many of these loans was a price curve that had increasing power prices, at levels in excess of inflation for the next 20 years. Under this scenario, the projects, even if not able to refinance due to a lack of capital-market access, would be able to repay these loans with cash-sweep mechanisms in six or seven years after the original maturity.

The assumptions used to make many of the mini-perms have been challenged by the recent poor market fundamentals in the power sector. What was once viewed as almost unlimited access to capital has all but dried up for this sector. Many of the banks may not see their loans repaid in the six or seven years, as originally forecast with a cash sweep, but may have to wait many years more for some of these assets to work off the debt load. Furthermore, sponsors will suffer in that they will lose access to the cash flow from these assets. Sponsors may not be able to refinance these assets because of the need for additional equity capital. Equity capital is difficult to come by during times of market distress. This again emphasizes the need for adequate liquidity to be successful in this sector. Some sponsors may be able to draft a reasonably priced long-term contract with a creditworthy counterparty, but it may prove difficult to negotiate a reasonable return during a low price period. Reasonable take-out assumptions based on the current market conditions will drive successful refinancings.

**Who's At Risk?**

Most energy merchants that financed construction projects in the recent past will be subject to some refinancing risk (a point already factored into Standard & Poor's ratings of these firms). Whether under the guise of a construction loan or a mini-perm financing, the sector will be challenged in the next several years to find a home for its merchant risk. The bank lenders may be left holding the bag. Standard & Poor's is most concerned with companies that secured many of the "jumbo financings," which are in the billions of dollars for each company. These include GenHoldings I LLC, Teco-Panda, ANP Funding I LLC, NRG Construction Revolver, and Calpine Construction Finance Co.

While financings in the sector have moved away from a piecemeal approach of financing individual assets to diversified portfolio financings--thus mitigating some risk by diversifying across an array of diverse assets--most

energy merchants have not built a true national presence. Exhibit JSF-8  
be uncorrelated. The sector is plagued with financial risks such as  
inadequate liquidity, severe undercapitalization, and a lack of access to  
capital, now viewed as a scarce resource, at a time when the ability to  
refinance may be key to the viability of many of the energy merchants.

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October 17, 2002

TO ARIZONA PUBLIC SERVICE COMPANY

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR AN ORDER OR ORDERS AUTHORIZING IT TO ISSUE, INCUR, OR ASSUME EVIDENCES OF LONG-TERM INDEBTEDNESS; TO ACQUIRE A FINANCIAL INTEREST OR INTERESTS IN AN AFFILIATE OR AFFILIATES; TO LEND MONEY TO AN AFFILIATE OR AFFILIATES; AND TO GUARANTEE THE OBLIGATIONS OF AN AFFILIATE OR AFFILIATES

Staff 3-3 (JST)

Page 5: Please provide any studies, correspondence, or other support for the claim that "...PWEC would be unable to raise significant debt financing on a standalone or non-recourse basis."

RESPONSE:

This statement from Mr. Tildesley's testimony is based on Salomon Smith Barney's existing and accumulated knowledge of capital market conditions for merchant generation companies. The testimony is based upon the dearth of financing transactions by non-regulated electric generating companies since the fourth quarter of 2001 due to the lack of investor interest in such companies.

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Staff 3-4 (JST)

Provide all SSB/Citigroup documents concerning APS or its affiliates' debt ratings or equity analyses.

RESPONSE:

Mr. Tildesley's testimony contains qualitative and quantitative analysis supporting the key conclusions of the testimony.

During the past three years, Salomon Smith Barney has not published any credit or equity research reports on Arizona Public Service Company or any of its affiliates.

October 17, 2002

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Staff 3-6 (JST)

Page 11: Provide the analysis referred to in the statement "Our analysis confirms that APS has excess debt capacity sufficient to allow it to borrow approximately \$500 million without significant impact on the current credit quality of APS." Please indicate how much excess debt capacity APS currently has.

RESPONSE:

Salomon Smith Barney cannot precisely quantify how much excess debt capacity APS currently has (i.e., maximum amount of incremental debt that would allow APS to maintain its current credit rating).

However, Salomon Smith Barney's analysis indicates, as presented in Figure 2 on p. 9 of Mr. Tildesley's testimony, that an incremental borrowing by APS of \$500 million would not have a significant impact on its current credit quality. Salomon Smith Barney has not undertaken any analysis of a lesser or greater amount.

October 17, 2002

TO ARIZONA PUBLIC SERVICE COMPANY

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR AN ORDER OR ORDERS AUTHORIZING IT TO ISSUE, INCUR, OR ASSUME EVIDENCES OF LONG-TERM INDEBTEDNESS; TO ACQUIRE A FINANCIAL INTEREST OR INTERESTS IN AN AFFILIATE OR AFFILIATES; TO LEND MONEY TO AN AFFILIATE OR AFFILIATES; AND TO GUARANTEE THE OBLIGATIONS OF AN AFFILIATE OR AFFILIATES

Staff 3-5 (JST)

Page 9: Provide the analysis and working papers that support the conclusion that "...APS has sufficient credit capacity to provide an intercompany loan or guarantee to PWEC in the amount of \$500 million without impairing fundamental utility credit quality."

RESPONSE:

The key elements of Salomon Smith Barney's quantitative analysis are presented in Figure 2 on p. 9 of Mr. Tildesley's testimony. Figure 2 contains comparison of APS 2001 credit ratios, actual and pro forma for the proposed \$500 million debt issuance or guarantee to PWEC, to S&P's guideline credit ratio ranges.

Attached is DR000174, a worksheet for the computation of the credit ratios for APS, based on the data in the APS annual report for 2001.

Attachment  
Worksheet for Computation of Credit Ratios

## Impact on APS

\$ in millions	LTM (a)	\$500mm Intercompany Debt		\$500mm Guarantee	
		Adjustments (b)	Pro Forma	Adjustments (c)	Pro Forma
EBIT, as reported	\$528		\$528		\$528
Add back: Implicit interest expense, Palo Verde lease (d)	26		26		26
EBIT, adjusted for lease	554		554		554
Interest expense, as reported, excluding capitalized interest	\$118	\$27	\$145	\$27	\$145
Add: Implicit interest expense, Palo Verde lease (d)	25		26		26
Interest expense excl. capitalized interest, adjusted for lease	144		171		171
Gross interest expense, as reported, including capitalized interest	\$133	\$27	\$160	\$27	\$160
Add: Implicit interest expense, Palo Verde lease (d)	26		26		26
Gross interest expense incl. capitalized interest, adjusted for lease	160		186		186
Funds flow from operations (FFO), as reported	\$494	\$7	\$501	(\$16)	\$477
Total debt, as reported	\$2,398	\$500	\$2,398	\$500	\$2,398
Add: Net present value of Palo Verde lease payments (e)	464		464		464
Total debt, adjusted for lease	\$2,862		3,362		3,362
Common equity	2,190		2,190		2,190
Total capitalization, as reported	4,589		5,089		5,089
Total capitalization, adjusted for lease	5,053		5,553		5,553
<b>Credit Ratios:</b>					
FFO Interest Coverage (f)	4.0x		3.6x		3.5x
FFO / Debt (g)	17.2%		14.9%		14.2%
Debt / Book Capitalization (h)	56.6		60.6		60.6
EBIT / Interest (i)	3.5x		3.0x		3.0x

**Notes:**

Assumes tax rate of 39.0% and interest rate of 5.32% (calculated based on 10 Year Treasury, as of 10/ 7/ 02 plus assumed 1.70 spread) for APS debt and guarantee, and 7.75% interest rate for intercompany debt

(a) LTM, as of June 30, 2002, from public Company filings

(b) Assumes that money is borrowed by APS at 5.32% interest rate, and lent on to PWEC at 7.75% interest rate

(c) Assumes that money is borrowed by PWEC at 5.32% interest rate, and that APS interest expense, FFO, EBIT and debt is adjusted

(d) Implicit interest expense of Palo Verde lease, using 5.70% interest rate, and calculated based on net present value of future Palo Verde lease payments

(e) NPV of Palo Verde operating lease payments, using 5.70% interest rate

(f) = (FFO - Adjusted interest expense excl. capitalized interest) / Adjusted gross interest expense incl. capitalized interest

(g) = FFO / Adjusted total debt

(h) = Adjusted total debt / Adjusted total capitalization

(i) = Adjusted EBIT / Adjusted gross interest expense incl. capitalized interest