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MEMORANDUM



2005 OCT 25 P 3:33

AZ CORP COMMISSION  
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TO: THE COMMISSION

FROM: Utilities Division

DATE: October 25, 2005

RE: IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR AUTHORIZATION TO ACQUIRE OUT-OF-STATE RENEWABLE RESOURCES. (DOCKET NO. E-01345A-05-0675)

On September 22, 2005, Arizona Public Service Company ("APS") filed an application for authorization to acquire out-of-state renewable resources. Decision No. 67744 ordered APS to issue a Request for Proposals ("RFP") seeking at least 100 MWs and at least 250,000 MWH per year of renewable energy resources for delivery beginning in 2006 (the "Renewables RFP"). The renewable energy resources targeted were solar, biomass/biogas, wind, small hydro (under 10 MWs), hydrogen (other than from natural gas) and geothermal. The Renewables RFP, and subsequent evaluation and negotiations, resulted in the selection of two projects within Arizona with a total of 6 MWs, and the selection of three out-of-state projects with a total of 144 MWs. This filing seeks approval from the Commission to acquire the out-of-state projects.

Renewables RFP

Under Commission Decision No. 67744, APS was required to issue a Renewables RFP seeking at least 100 MWs and at least 250,000 MWh per year of renewable energy resources for delivery beginning in 2006. On May 11, 2005, APS issued the Renewables RFP. APS sent E-mail notifications regarding the release of the RFP to more than 70 individuals or entities that it believed would be interested in the solicitation. In addition, APS issued a press release, which was picked up by trade journals and electronic newsletters. APS also maintained a Renewable RFP website.

Consistent with the requirements in Decision No. 67744, APS sought proposals from solar, biomass/biogas, small hydro, hydrogen, and geothermal projects. The Renewable RFP bid responses were required to provide at least 20,000 MWh of renewable energy annually. The cost of the resources could not exceed 125 percent of the cost of conventional resource alternatives. In addition, the resources were required to be deliverable to the APS system either directly or through displacement, and any purchased power agreements had to be for a minimum of 5 years and a maximum of no more than 30 years. Respondents were also required to offer resources either with fixed prices or relatively stable prices that did not vary with the price of natural gas or electricity. No affiliate of APS was allowed to participate in the Renewables RFP.

### Response to Renewables RFP

Twenty-four (24) proposals were received from twelve (12) different respondents. The proposals consisted of twenty two (22) Purchased Power Agreements ("PPAs") and two (2) proposed asset sales. Five (5) of the six (6) renewable technologies were represented; wind, geothermal, solar, biogas/biomass and small hydro. Fourteen (14) of the proposals were for in-state projects and ten (10) of the proposals were for out-of-state projects. A total of 787 MWs were proposed in response to the Renewables RFP.

### Proposal Evaluation

The proposals were evaluated in phases. The initial phase evaluation determined how each proposal compared to the economic threshold specified in Decision No. 67744. The economic threshold was established to be equal to or lower than 125 percent of market price (APS Total Avoided Cost), which included APS' Avoided Capacity Cost plus APS' Avoided Energy Cost. Respondent costs were derived using the project bid price plus any required APS Integration Costs such as transmission wheeling and other ancillary costs. As a result of the initial phase, APS eliminated from further consideration projects with prices that exceeded 150 percent of the APS Total Avoided Cost. Six (6) proposals from four (4) entities were eliminated from further consideration.

The second phase of the evaluation was conducted with APS entering into discussions with all remaining bidders to get clarification on proposals and refine the offer prices. Discussions included firming up in-service dates, technology risk, transmission availability and cost, and performance requirements. As a result of clarifications with bidders the in-service dates and project ultimate cost were modified by APS; bidders were not allowed to submit new prices. In arriving at its final listing, APS eliminated bids with in-service dates after December 31, 2007. Based on the negotiations held with the bidders, and changes to pricing and in-service dates, the bids were ranked in accordance to percent of avoided cost from lowest to highest. As a result of this ranking, APS selected the five (5) proposals that could have in-service dates by December 31, 2007, and had pricing at or below 125 percent of the APS Total Avoided Cost. At this point negotiations were entered into with Cambrian Energy Development LLC ("Cambrian"), Ameresco Skunk Creek LLC ("Ameresco"), Cal Energy Company Inc. ("Cal Energy"), and Superior Renewable Energy LLC ("Superior") to resolve any remaining issues. APS successfully entered into memoranda of understanding ("MOU") with each company, and is requesting Commission approval to acquire the out-of-state renewable resources from Cal Energy and Superior.

### Staff Analysis

Staff analysis of the bidding, evaluation and negotiation processes found no irregularities. The bid process was open and answers to bidder questions were addressed on a timely basis. All bids were ranked according to bidder supplied cost data. The transfer of the cost data from the bid documents to the evaluation documents was accurate and verified by Staff. At this point bids

that exceeded 150 percent of the APS Total Avoided Cost were eliminated. Staff verified the cost calculations. It should be noted that APS utilized its standard processes, and software, for calculation of its Avoided Capacity Cost, and Avoided Energy Costs, which make up its Total Avoided Costs. By using a simple cycle combustion turbine, as the conventional resource alternative, for determining Avoided Capacity Cost, and using the latest forward price curves available at the time of evaluation for determining Avoided Energy Costs, APS set the Total Avoided Cost benchmark as high as possible. This provided the bidders the maximum opportunity to compete with the most expensive conventional resource available to APS.

Subsequent to the initial ranking, and elimination of the bids exceeding 150 percent, APS entered into detailed discussions with the remaining bidders to address development schedule and risk, firm-up in-service dates, evaluate technology risk, determine availability and cost of transmission, identify performance requirements and finalize pricing. At this point, a better picture of costs and in-service dates were established and the bids were re-ranked based on this information. Bids that had in-service dates beyond December 31, 2007, and exceeded 125 percent of the APS Total Avoided Cost were eliminated. No bids were eliminated due to firm/non-firm classification of power, in-state versus out-of-state, Environmental Portfolio Standard eligibility, or credit issues.

In summary, the documentation reviewed in support of the preceding Staff analysis was adequate. It is Staff's opinion that APS selected, through a fair competitive bid process, projects based on the criteria outlined in Decision No. 67744.

#### Impact of Recent Increases in the Price of Natural Gas

Subsequent to the close of negotiations and the completion of the selection process, APS recalculated its Avoided Energy Costs utilizing recent forward price curve information for natural gas and provided the information to Staff. This was done to determine if the recent run-up in energy costs affected the selection of successful projects. The effect was to increase the Total Avoided Cost but had negligible impact on the relative ranking of the bids. The rank order remained the same.

#### Experience in other states

Staff contacted Xcel Energy Services (Xcel) in Denver, Colorado, and the Nevada Public Utility Commission Staff in Carson City, Nevada, to discuss the results of recent Renewable RFPs conducted in Colorado and Nevada. Direct comparison to the APS RFP is difficult because different approaches have been taken in Arizona, Nevada and Colorado. However, there are some issues that appear common and relevant to this and future Renewable RFPs by Arizona utilities.

Xcel issued a Renewables RFP in August 2004. The RFP was seeking up to 500 MWs of wind that did not have to be generated in Colorado but had to be deliverable to the utility system. To qualify, the wind project had to reduce system cost. They received bids totaling 4,000 MWs.

When the evaluation and negotiation process was completed, a contract was signed for a total of 60 MWs. What happened? Most bids were by project developers. Many of the developers did not have wind turbines and based their bids on anticipated costs and delivery schedules. The price of wind turbines was under estimated and their availability was over estimated. In most cases it meant the bid price had to increase to cover increased costs of wind turbines and delays in construction. Many bids simply fell out of the money, and other bidders withdrew due to inability to obtain wind turbines. Xcel has seen an increase in wind turbine prices of 20 to 30 percent in each of the last two years. They attribute the price increases to global demand. Apparently, there are not enough producers to meet the global demand for wind turbines.

The Nevada approach requires the purchase of indigenous resources, is driven by state statute, and has no cap on the cost of the resource. Contract approval is required from the Nevada Commission on all renewable projects regardless of size. The indigenous resources include biomass, geothermal, wind, solar, small hydro and fuel cells. Sierra Pacific Resources issued the RFP. Eight (8) projects were selected and approved. At this point, four (4) of the projects have withdrawn, and the remaining four (4) are in place, or proceeding with development. If the four (4) remaining projects reach completion, approximately 170 MWs will be available. Sierra Pacific Resources issued another Renewables RFP in May 2005. The bids are presently being evaluated, and consideration is being given to utility ownership or equity partnership in the renewable projects.

The Arizona approach is inclined to be more successful than the Colorado and Nevada approaches because it contains fewer restrictions. The Arizona approach does not limit resources to in-state, only requires approval for out-of-state resources, and seeks to develop a portfolio of resources rather than be limited to one (1) resource. However, it is subject to the same market issues that impacted the Colorado and Nevada bids. Successful bidders must be able to obtain the wind turbines and/or solar equipment to actually complete projects, have the financial ability to build projects that offer economies of scale, and pay the engineering and development staffs required to site, construct and operate their projects. States are in competition with each other for renewable resources as well as competing with world demand for the equipment needed to construct projects.

#### Summary of Recommendations

Staff recommends that the Commission approve the APS acquisition of the out-of-state renewable resources from Cal Energy (two (2) geothermal projects: CE Turbo, and Binary Augmented Generation), and from Superior (one (1) wind project, Aragonne Wind).

Staff further recommends that the Commission specify in its Order that approval of the APS acquisition of the out-of-state renewable resources at this time does not guarantee any future ratemaking treatment of the acquisition.



Ernest G. Johnson  
Director  
Utilities Division

EGJ:WPG:rdp/KL

ORIGINATOR: William Gehlen

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**BEFORE THE ARIZONA CORPORATION COMMISSION**

- JEFF HATCH-MILLER  
Chairman
- WILLIAM A. MUNDELL  
Commissioner
- MARC SPITZER  
Commissioner
- MIKE GLEASON  
Commissioner
- KRISTIN K. MAYES  
Commissioner

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR AUTHORIZATION TO ACQUIRE OUT-OF-STATE RENEWABLE RESOURCES	} } } }	DOCKET NO. E-01345A-05-0675 DECISION NO. _____ <u>ORDER</u>
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Open Meeting  
November 8 and 9, 2005  
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. Arizona Public Service Company ("APS") is certificated to provide electric service as a public service corporation in the State of Arizona.
2. On September 22, 2005, APS filed an application seeking authorization to acquire 144 MWs of out-of-state renewable resources.

Background

3. Under Commission Decision No. 67744, APS was required to issue a Renewables Request for Proposals ("RFP") seeking at least 100 MWs, and at least 250,000 MWH, per year of renewable energy resources for delivery beginning in 2006. On May 11, 2005, APS issued the Renewables RFP. APS sought proposals from solar, biomass/biogas, small hydro, hydrogen, and geothermal projects. The Renewable RFP bid responses were required to provide at least 20,000 MWH of renewable energy annually. The resources selected could not exceed 125 percent of APS conventional resource alternatives and be deliverable to the APS system either directly or through displacement, and purchased power agreements had to be for a minimum of (5) years and a

1 maximum of no more than 30 years. Respondents were also required to offer renewable resources  
2 either with fixed prices or relatively stable prices that did not vary with the price of natural gas or  
3 electricity. No affiliate of APS was allowed to participate in the Renewables RFP.

4 Response to Renewables RFP

5 4. Twenty-four (24) proposals were received from twelve (12) different respondents.  
6 The proposals consisted of twenty two (22) Purchased Power Agreements ("PPAs") and two (2)  
7 proposed asset sales. Five (5) of the six (6) renewable technologies were represented; wind,  
8 geothermal, solar, biogas/biomass and small hydro. Fourteen (14) of the proposals were for in-  
9 state projects and ten (10) of the proposals were for out-of-state projects. A total of 787 MWs  
10 were proposed in response to the Renewables RFP.

11 Proposal Evaluation

12 5. The proposals were evaluated in phases. The initial phase evaluation determined  
13 how each proposal compared to the economic threshold specified in Decision No. 67744. The  
14 economic threshold was established to be equal to or lower than 125 percent of market price (APS  
15 Total Avoided Cost), which included APS' Avoided Capacity Cost plus APS' Avoided Energy  
16 Cost. Respondent costs were derived using the project bid price plus any required APS Integration  
17 Costs such as transmission wheeling and other ancillary costs. As a result of the initial phase, APS  
18 eliminated from further consideration projects with prices that exceeded 150 percent of the APS  
19 Total Avoided Cost.

20 6. The second phase of the evaluation was conducted with APS entering into  
21 discussions with all remaining bidders to get clarification on proposals and refine the offer prices.  
22 Discussions included firming up in-service dates, technology risk, transmission availability, and  
23 performance requirements. In most cases, the in-service dates and pricing were adjusted by APS  
24 during negotiations to reflect final cost of project completion; bidders were not allowed to submit  
25 new prices. In arriving at its final listing, APS eliminated bids with in-service dates after  
26 December 31, 2007. Based on the negotiations held with the bidders, and changes to pricing and  
27 in-service dates, the bids were ranked in accordance to percent of avoided cost from lowest to  
28 highest. As a result of this ranking, APS selected the five (5) proposals that could have in-service

1 dates by December 31, 2007, and had pricing at or below 125 percent of the APS Total Avoided  
2 Cost. At this point, negotiations were entered into with in-state bidders Cambrian Energy  
3 Development LLC ("Cambrian"), and Ameresco Skunk Creek LLC ("Ameresco"); and out-of-  
4 state bidders Cal Energy Company Inc. ("Cal Energy"), and Superior Renewable Energy LLC  
5 ("Superior") to resolve any remaining issues. APS successfully entered into memoranda of  
6 understanding ("MOU") with each company, and is requesting Commission approval to acquire  
7 the out-of-state renewable resources from Cal Energy and Superior.

#### 8 Staff Analysis

9       7. Staff analysis of the bidding, evaluation and negotiation processes found no  
10 irregularities. The bid process was open and answers to bidder questions were addressed on a  
11 timely basis. All bids were ranked according to bidder supplied cost data. The transfer of the cost  
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18 available at the time of evaluation for determining Avoided Energy Costs, APS set the Total  
19 Avoided Cost benchmark as high as possible. This provided the bidders the maximum opportunity  
20 to compete with the most expensive conventional resource available to APS.

21       8. Subsequent to the initial ranking, and elimination of the bids exceeding 150 percent,  
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ORDER

IT IS THEREFORE ORDERED that APS is authorized to acquire the out-of-state renewable resources from Cal Energy and Superior.

IT IS FURTHER ORDERED that the Commission specify in its Order that approval of the APS acquisition of the out-of-state renewable resources at this time does not guarantee any future ratemaking treatment of the acquisition.

IT IS FURTHER ORDERED that this decision should become effective immediately.

**BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

CHAIRMAN

COMMISSIONER

COMMISSIONER

COMMISSIONER

COMMISSIONER

IN WITNESS WHEREOF, I BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this \_\_\_\_\_ day of \_\_\_\_\_, 2005.

\_\_\_\_\_  
BRIAN C. McNEIL  
Executive Director

DISSENT: \_\_\_\_\_

DISSENT: \_\_\_\_\_

EGJ:WPG:rdp/KL

1 SERVICE LIST FOR: ARIZONA PUBLIC SERVICE COMPANY  
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