0000158488

Thomas L. Mumaw, AZ Bar No. 009223
Melissa M. Krueger, AZ Bar No. 021176
Pinnacle West Capital Corporation
400 North 5th Street, MS 8695
Phoenix, Arizona 85004
Tel: (602) 250-2052
Fax: (602) 250-3393
E-Mail: Thomas.Mumaw@pinnaclewest.com
Melissa.Krueger@pinnaclewest.com
Attorneys for Arizona Public Service Company

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BEFORE THE ARIZONA CORPORATION COMMISSION

Arizona Corporation Commission
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BOB STUMP, Chairman
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SUSAN BITTER SMITH

IN THE MATTER OF RESOURCE PLANNING AND PROCUREMENT.

DOCKET NO. E-00000V-13-0070

COMMENTS TO STAFF'S ASSESSMENT OF 2014 INTEGRATED RESOURCE PLAN

APS submits the following comments and exceptions to the November 3, 2014 Assessment of the 2014 Integrated Resource Plans of the Arizona Electric Utilities ("Assessment") and provides recommendations for potential next steps in advancing the Integrated Resource Planning ("IRP") process.

APS is appreciative of the efforts undertaken by the Consultants and Staff and concurs with the majority of the Assessment. Specifically, APS concurs with the Assessment's recommendation that the Commission approve under A.A.C. R14-2-704(E) the retirement of Cholla Unit 2, as well as the conclusions reached by the Consultants that APS's natural gas and carbon cost forecasts and assumed inflation rate were reasonable. APS requests, however, that certain statements made within the Assessment be clarified and/or corrected, so that the Commission will have an accurate

and more thorough record from which to issue its Acknowledgement order. APS's comments and concerns are discussed below. In addition, as requested at the November 7, 2014 workshop, APS offers recommendations for improvements in the IRP process.

I. RECOMMENDATIONS FOR IRP PROCESS IMPROVEMENTS

Based upon discussions with RUCO and other stakeholders, APS makes the following recommendations for potential next steps in advancing and improving the IRP process in future planning cycles.

Step 1 – Conduct Utility-Specific Requests for Information

The initial step in the development of an IRP would be to hire an independent monitor ("IM"). Once the IM has been selected, individual utilities would conduct a Request for Information ("RFI") that would gather current pricing and performance information for various resource technologies. The RFI solicitation would be made available for stakeholder comment prior to issuance in order to gather additional information as to what is being requested from respondents. The information requested in the RFI would not be location or project specific, but rather would request technology specific information about the relative costs and operational characteristics that utilities could then use in developing utility-specific scenario analyses, resource portfolios and action plans. The RFI process would be reviewed by the IM, consistent with the current procurement rules, A.A.C. R14-2-705 *et seq.* The results of the RFI and IM review would be made available to the ACC Staff and its independent consultant, and would provide the Commission additional context for resource cost, market-readiness, and performance characteristics of the various resource technologies.

Step 2 – Collaborative Process for Utility Planning Assumptions and Needs

In the initial IRP development process, utilities gather information about system operational needs and expected load growth through internal and external data sources and analyses. This information is ultimately used to develop future planning requirements as well as scenarios and resource portfolios to be evaluated as alternatives in the IRP. APS recommends that after this information is gathered and evaluated by

individual utilities, a workshop be convened at Commission direction. The workshop would allow interested parties to provide comments to utilities regarding the underlying information used to develop each utility's IRP. APS proposes that the independent consultant hired by ACC Staff be retained prior to this workshop, so the consultant may participate and have an opportunity to provide comments and their independent review of each utility's needs and resource alternatives. The combination of utility-developed scenarios and any additional recommendations of the various parties would then be considered by the individual utilities as part of their process.

Step 3 – Additional Enhancements to the IRP Process

In advancing the IRP process, APS recommends the Commission do more than acknowledge individual utility resource plans. Rather, APS recommends the Commission approve utility resource plans. With an IRP approval process, the Commission will have a better opportunity to provide policy direction and guidance to utilities regarding their future plans. In turn, an approval process would provide utilities with an increased level of certainty prior to proceeding with future plans.

APS is also supportive of further enhancing the IRP process to include concepts such as:

- Integration with transmission and distribution planning through consideration of utility 10-Year Transmission Plans and available long-range distribution and smart grid deployment plans as examples.
- Utilizing the IRP process to better determine the level, types, and timing of energy efficiency and other demand side management resources needed on the system, such as load control programs and rate plans that influence customer behavior.

Step 4 – Post Commission Approval and Procurement

As new resources are needed and consistent with the procurement rules, A.A.C. R14-2-705 through 706, each utility would develop a competitive bidding process whereby resource needs would be solicited for specific projects through Requests for

Proposals ("RFP"). These projects would include more specific project details as appropriate including the size, type of technology, potential locations, and expected in-service date. The process would be overseen by an IM consistent with A.A.C. R14-2-706. Information resulting from such solicitations would be shared, under protective agreement with ACC Staff and their consultant as needed. Generation projects requiring a Certificate of Environmental Compatibility ("CEC") prior to construction would continue to advance through this process as currently defined by statute; however, APS would be supportive of expanding the eligible technologies subject to CEC to include all thermal and non-thermal generation sources greater than 100 MW, as well as storage resources of 100 MWh or greater in size.

II. SECTION V: CONCLUSIONS AND RECOMMENDATIONS

A. The Economics of the Ocotillo Modernization Project

APS disagrees with the statement on page 103 of the Assessment that says the APS proposed Ocotillo Modernization Project ("OMP") "may not be the most economic choice, and that the construction of additional capacity at Ocotillo should not be initiated without the issuance of an RFP to satisfy the additional 290 megawatt addition that APS plans at Ocotillo." APS has conducted extensive analyses regarding the economics of the OMP. APS compared the costs as well as the benefits of continuing to repair the aging steam units verses retiring them and building new generation on site. APS also conducted a cost and benefit analysis of the OMP as compared to building at other sites—both brown field and green field sites. These analyses combined with an assessment of the other benefits of the OMP, clearly demonstrate that the OMP is economical for APS customers and provides substantial reliability benefits for the Metro Phoenix load pocket, among other benefits. APS provided the results of these analyses in response to Staff Data Requests 1.4 and 3.1 in the IRP Docket. In addition, in response to Staff 3.1, APS provided additional analysis regarding the potential economic impacts to customers if the OMP were not to be undertaken. APS's response to Staff 3.1 demonstrates a positive net present value of approximately $86 million in customer

economic benefits compared with not pursuing the OMP. APS has also conducted an analysis regarding the potential increased costs to customers of delaying the construction of three of the five proposed GT's for 18 months and for 36 months, and provided this in response to Staff 1.4. That analysis concluded that delaying the OMP by 18 months would increase customer costs by $64 million and a 36 month delay would increase customer costs by $199 million.

In addition to the economic analyses discussed above, APS considered a variety of other economic and non-economic benefits of the OMP including the following:

- Existing transmission infrastructure
- Existing land, buildings and personnel
- Minimal site upgrades
- Existing natural gas pipeline to site
- System reliability benefits
- Community support
- Visual improvements related to retiring steam units
- Available site emission credits from retiring steam units
- Existing water supplies
- Resource diversity within the natural gas fleet
- Renewable integration benefits

APS presented evidence on each of these factors in the three day hearing before the Line Siting Committee on September 16-18, 2014. On November 13, 2014, the Commission issued Decision No. 74812 affirming the decision of the Line Siting Committee and approving the CEC for the OMP.

B. Prior References to the OMP

Questions regarding whether APS mentioned its plans for Ocotillo in its 2012 IRP were raised at the Commission's second IRP workshop. In its 2012 IRP, APS disclosed that it was conducting a site analysis of Ocotillo and other power plants, stating that "[some or all of the generating units, as well as site infrastructure, at Ocotillo

(and other plant sites) are anticipated in the near future to need some level of updating, repair, or replacement as these sites are critical in maintaining system reliability]." *See* 2012 IRP at p. 78. APS also stated that "At the time of this resource plan filing, the full extent of this effort is not known as site analysis is currently being evaluated." *Id.* In addition, on page 154 of the 2012 IRP, APS further discussed the potential need for gas-fired generation at new or existing sites and noted that it was working on developing solutions to meet the need for combined cycle and combustion turbine generation in the 2017-2021 time-frame. The need for combustion turbine generation in this same time-frame was also reflected in the loads and resources tables contained in the 2012 IRP Attachment F.1(a).

C. An RFP Is Not Required

The Assessment states on page 103, "that the construction of additional capacity at Ocotillo should not be initiated without the issuance of an RFP to satisfy the additional 290 megawatt addition that APS plans at Ocotillo." This statement seems to imply that an RFP might be required by the procurement rules, A.A.C. R14-2-705 through 706, and that the economics of the OMP should be called into question because APS has not conducted an RFP. APS disagrees for the reasons outlined below. However, in an abundance of caution and to alleviate concerns that have been raised in the Assessment, APS intends to proceed with an RFP for the additional capacity prior to proceeding with this phase of the OMP build-out.

First, by its terms A.A.C. R14-2-705 only applies to "wholesale acquisition of energy and capacity." Self-building a generation unit is not the wholesale acquisition of energy and capacity. *See In re the Application of APS for Authorization to Acquire Power Plant*, Comm'n Dec. 69400 (Mar. 30, 2007) (noting that a developer-build proposal was not a wholesale market resource). Thus, APS's proposal to self-build a power plant does not fall within the scope of the rule. Second, even if it could be interpreted that the rules applied here, the OMP would fall within the exception contained in R14-2-705 B (5). APS analyses concluded that the OMP presents a unique

opportunity to acquire a resource at a clear and significant discount due to the availability of existing infrastructure, the ability to net air emissions, the available water supply, and the coincident timing of the need to replace the aging steam units. It is also worth noting that APS has conducted an independently monitored request for qualifications and RFP for the engineering, procurement and construction contractor for the OMP project, thus ensuring that the costs are competitive.

D. Rate Impacts

The Assessment purports to discuss what is referred to as future "Rate Impacts" on page 99 and on slide 57 of the Consultants' November 7, 2014 IRP presentation. The "rate impact" information and discussion has led to confusion because it appears to inadvertently mischaracterize the data. The information represented in the table on page 99, which is labeled average annual rate increase, is not a projection of future rates or rate impacts. APS requests that this information be withdrawn or modified to accurately convey what this information reflects rather than including the distinction in a footnote. The 4.4% value for APS reflects the sum of annual revenue requirements of existing generation, new generation, new transmission, and variable costs (such as fuel and O&M, etc.) divided by annual MWh of energy requirement. The value is only a portion of total annual rates that would also include existing transmission and distribution revenue requirements. Inclusion of all rate components would decrease the reported annual growth rate by a significant margin. Additionally, because this data reflects future costs (which can occur in lumpy increments), not rates, and based upon the analysis provided by the Consultants, APS believes that a compound annual growth rate is more appropriate than an annual average growth rate. Applying a compound annual growth rate to APS's cost data for the Selected Plan yields an annual average system cost growth rate of approximately 3.1%, which is not a projection of future rates or rate impacts.

E. Load Forecasts and Peak Demand Forecast

Conclusions that the APS load forecast is "aggressive" or "optimistic" are unwarranted and appear to result from apples-to-oranges comparisons of forecast data to historical data. For analytical purposes, it is more appropriate to compare historical load growth (which includes reductions due to the Company's energy efficiency and distributed generation programs) to projected load growth, including the effects of future energy efficiency and distributed generation. It is important when comparing forecasts over a period of time to ensure that the data being compared has treated these resources in the same manner. When this type of "apple-to-apples" comparison is done on a forward looking basis, APS's forecasts reflect a growth rate of approximately 2.2% per year from 2014 to 2029, rather than the 3% per year reflected on page 32 of the Assessment. Notably, through 2020, a period in which APS estimates significant resource needs, forecasted peak demand growth after the effects of energy efficiency and distributed energy averages only 1.5% per year. Additionally, while a simple comparison of historical to projected growth rates may highlight divergent trends between the two, such a comparison should only serve as the starting point for a more complete analysis of how the future ought to look in light of historical experience. Simple comparisons of different historical periods will show that load growth will vary depending on economic and other conditions, and such differences should be taken into account when characterizing any particular projection or forecast.

F. DSM Programs Considered

APS requests that page 45 of the Assessment be updated to reflect the following respecting the energy efficiency programs that were considered during the development of the IRP.

<u>Energy Efficiency Programs:</u>

- Clothes washers considered, but rejected
- Heat pump water heaters considered, but rejected
- Energy Star refrigerators considered, but rejected

- Window film considered, but rejected
- LED Christmas lights considered, but rejected
- Thermostatic controlled shower heads considered, but rejected
- Gaskets, included in IRP
- Compressed air solutions, included in IRP

G. Supply Side Options Considered

APS requests that page 48 of the Assessment be updated to reflect the following respecting the supply side resources that were considered during the development of the IRP.

Supply Side Options:

- Nuclear AP 1000 hybrid considered, but not included in IRP Report
- Purchased power, short-term considered in IRP
- Liquefied air, not considered

III. Conclusion

APS's IRP complies with all applicable IRP Rules and subject to the above proposed comments, APS requests that the Commission acknowledge its 2014 IRP. APS also looks forward to having a continuing dialogue regarding potential process changes and improvements that could be applied to improve the usefulness of future IRPs.

RESPECTFULLY SUBMITTED this 5th day of December 2014.

By: Thomas L. Mumaw

Thomas L. Mumaw
Melissa M. Krueger

Attorneys for Arizona Public Service Company

ORIGINAL and thirteen (13) copies of the foregoing filed this 5th day of December 2014, with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Copies of the foregoing delivered/mailed this 5th day of December 2014, to:

Janice Alward
Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

C. Webb Crockett
Patrick J. Black
Fennemore Craig, P.C.
2394 East Camelback Road, Suite 600
Phoenix, Arizona 85016-3429
Attorneys for Freeport-McMoRan and AECC

Lyn Farmer
Administrative Law Judge
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Patrick Black
Fennemore Craig, P.C.
2394 East Camelback Road, Suite 600
Phoenix, Arizona 85016-2394
Attorney for Gila River Power

Steve Olea
Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Daniel W. Pozesfky
Chief Counsel
Residential Utility Consumer Office
1110 West Washington, Suite 220
Phoenix, Arizona 85007

Greg Patterson
Munger Chadwick
916 West Adams, Suite 3
Phoenix, Arizona 85007
Attorney for Arizona Competitive Power Alliance

David Berry
Western Resource Advocates
P.O. Box 1064
Scottsdale, Arizona 85252-1064

Timothy M. Hogan
Arizona Center for Law in the Public Interest
202 East McDowell Road, Suite 153
Phoenix, Arizona 85004
Attorney for SWEEP and WRA

Jeff Schlegel
SWEEP Arizona Representative
1167 West Samalayuca Drive
Tucson, Arizona 85704-3224

Rebecca Turner
Gila River Power, LP
100 South Ashley Street, Suite 1400
Tampa, Florida 33602

Giancarlo G. Estrada
Kamper, Estrada & Simmons
3030 North 3rd Street, Suite 200
Phoenix, Arizona 85012
Attorney for SEIA