ORIGINAL

COMMISSIONER O'CONNOR PROPOSED AMENDMENT NO. 5

DATE PREPARED: October 25, 2021

COMPANY: Arizona Public Service Company AGENDA ITEM NO. 18

DOCKET NO.: E-01345A-19-0236 OPEN MEETING DATE: October 26-27, 2021

Purpose: This amendment replaces Chairwoman Márquez Peterson Proposed Amendment No. 3 ("LMP #3"), which was adopted during the Special Open Meeting regarding the APS Rate Case, held on October 4-6, 2021. This amendment allows in rate base APS's SCRs investments, SCRs Deferral, and SCRs Debt Deferral, with the exception of $215.5 million due to planning imprudence.

This amendment requires APS to depreciate/amortize the SCRs, the SCRs Deferral, and the SCRs Debt Deferral based on an end of life of July 2031. This amendment also requires APS to make a corresponding adjustment to its operating expenses for the depreciation on the adjusted SCRs balance.

Page 111, line 8, through page 115, line 25:

DELETE: Language adopted in LMP #3

INSERT:

"The prudency of the costs of the SCRs project investments has not yet been determined by the Commission. We concur with the Sierra Club's position that the Commission would not and did not implicitly find the SCRs investment to be prudent, as we do not believe that the Commission could make such a finding without knowing the extent of the SCRs project investments and APS's capacity needs at the time those investments were made. The language of the Settlement Agreement approved in Decision No. 76295 also supports a determination that the prudency of the costs of the SCRs project has not yet been determined, as it expressly retained the Commission's authority to review the entire SCRs project and make disallowances for imprudence, errors, or inappropriate application of the requirements of Decision No. 76295.[1] (Ex. APS-70 at 23-24, ex. A at 12.)

The evidence herein shows that APS may be forced to write-off or write-down its SCRs project investments if the Commission does not soon act on its request for recovery. It would be

[1] APS interprets this language to mean that the Commission can review the prudency of the installation costs incurred for the SCRs and the execution of installing the SCRs, not the prudency of investing in the SCRs in the first instance, which APS believes was settled when the acquisition of SCE's interest in Units 4 and 5 was approved. (Tr. at 199-200, 240-241, 450-452.)

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inappropriate for the Commission's decision on APS's recovery for the SCRs project investments to come through inaction and further delay and the operation of GAAP. A rate case is the most appropriate context in which to determine recovery for the SCRs, and this rate case is the best vehicle for the decision because the evidentiary record from the SCRs Phase (although now outdated) has been made part of the record in this case. Thus, the Commission will determine in this case the prudency of the SCRs project investments and the extent to which APS should receive recovery.

The Commission's determinations in December 2014 regarding the SCE acquisition were made with the understanding that Units 4 and 5 would be operating at the same capacity through 2038,[2] and after rejecting Sierra Club's contentions that future natural gas and carbon emission prices would render continued operation of Units 4 and 5 uneconomical and would result in early closure of the plant and that there was a risk of decreased output from Units 4 and 5.

When APS filed its application in this matter on October 31, 2019, APS indicated that the 4CPP would not shut down earlier than 2038. Only a few months thereafter, in January 2020, APS made its Clean Energy Commitment, indicating that it would exit coal generation by 2031. During this matter, APS consistently emphasized the importance of Units 4 and 5 to the reliability of APS's service, particularly during the peak summer months, and the need to keep Units 4 and 5 in service until 2031. Since the hearing, APS has announced that the 4CPP will switch to seasonal operations in fall 2023, so that both Units 4 and 5 will be in service only during the summer months (June through October), and only one of the Units will be in service the remaining months.

Sierra Club argued that the SCRs investments were imprudent and that recovery of those costs should not be allowed. Its evidence suggests that APS may have willfully maintained ignorance concerning whether it would be beneficial (at least from a ratepayers' perspective) to change direction at some point prior to the completion of the SCRs.

We believe that a utility has a duty to monitor the economics of its investments in a project from the inception of the project and until the project is completed and that each investment made along the way is subject to a prudency determination. We also believe that a utility has a duty to alter its choices and its course for a project if doing so makes sense economically and is in the public interest, even if altering the course may not be as advantageous to the utility's shareholders as completing the project would be. A utility has a duty not only to its shareholders but also to its ratepayers and the public.

The evidence in this matter shows that APS did not monitor the economics of its investments in the SCRs project after the project commenced and was not open to changing its course once the SCRs project had begun. We believe that as a large and sophisticated electric utility, APS knew (or reasonably should have known) that the economic assumptions that had led to its conclusion that its best course of action was to continue operating both Units 4 and 5, and thus to complete installation of the SCRs on both Units 4 and 5, had changed such that additional economic analyses should have been conducted before a large part of the SCRs investments were made. APS should have made economic analyses from the beginning of the SCRs project and

[2] 2011 Rate Case 4CPP Rate Rider Tr. at 248, 304, 307, 309, 534. Official notice is taken of these transcripts.

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had knowledge even before the commencement of the SCRs construction that it could be more costly to go forward with the SCRs project than to use other resources. In reaching this determination, we considered, *inter alia*, the following evidence of record:

- In its 2012 IRP, APS determined, based on a low-gas-cost forecast, that it would save $497 million NPV from 2012-2041 if it did not acquire Units 4 and 5.
- Although those low gas costs had become reality by APS's 2014 IRP, APS did not include a low-gas-cost forecast in its 2014 IRP and instead assumed that the 4CPP would operate until 2038.
- APS did not begin construction on the SCRs project until September 2015 and did not begin SCRs reactor installation until January 2017.
- After the SCRs project construction began, APS only analyzed a 4CPP retirement earlier than 2038 in its 2017 IRP (using a 2031 date) and concluded that APS's costs would be slightly increased in the 15-year term and slightly reduced over 30 years with the 2031 retirement.
- As of the close of record in this matter, APS had not analyzed the economic costs and benefits of continuing to operate the 4CPP or the impact on retail rates of a pre-2031 retirement of either or both units of the 4CPP.
- In its 2020 IRP, APS included the 4CPP as a must-run resource in every scenario, with the same level of generation regardless of carbon costs or gas costs used.
- The 4CPP has become less reliable and more expensive to operate, while other resources have become much less expensive.
- Solar PPA prices declined by more than 80% between 2009 and 2019 (to $23.51 per MWh in 2019).
- Median installed PV project prices decreased by 70% between 2010 and 2019.
- PPA prices for wind resources have fallen to between $15 and $35 per MWh.
- Adding battery storage to a PV project costs approximately $5 to $15 per MWh depending on the size of the battery.
- Natural gas prices at the SoCal Border Hub have declined substantially since 2008 and are expected to stay low ($3 per MMBtu or less) through 2029.
- The Palo Verde Hub market price was $28.10 per MWh in 2019 and projected to be lower than $40 per MWh through 2029.
- Since 2014, the Western Energy Imbalance Market has been providing access to trade low-cost renewable generation.
- RUCO provided evidence that the cost to get power from the 4CPP in 2019 was $73/MWh. (Ex. RUCO-1 at 13.)

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- APS's FERC Form 1 filings show that the average 4CPP per unit O&M costs were $36.19 in 2015, $55.45 in 2016, $54.02 in 2017, $58.44 in 2018, and $45.23 in 2019. (Ex. CG-3 at 17.)
- The Citizen Groups provided evidence that, for 2020-2030, the cost of energy from the 4CPP is $79.54/MWh (higher than solar, wind, Gila River Unit 2 (gas), new build natural gas combined cycle, Springerville, and NGS and lower only than the SJGS). (Ex. CG-3 at 18.) For 2020 through 2030, the costs of solar resources, wind resources, and a new build natural gas combined cycle plant are estimated to be $29.36, $32.10, and $52.13/MWh.
- Both Sierra Club and the Citizens' Group presented evidence showing that APS and its ratepayers would save a great deal of money if the 4CPP were retired early, although APS disputes their assumptions and findings.
- The 4CPP's annual capacity factor declined from an 81% average in 2005-2009 to a 71% average in 2010-2014, and to a 62% average in 2015-2019 (without factoring in the three-month downtime for each Unit for SCR installation).
- The 4CPP did not operate up to the industry average for similarly sized coal plants in 2010-2019, based on EAF—the power levels at which a plant actually operates—and EFOR—how much of the time a plant must reduce power fully or partially as a result of unplanned equipment problems. The 4CPP had an average EAF of 76% for 2010-2014 and of 66% for 2015-2019 (including a 78% EAF in 2019), versus an average EAF for similar sized coal plants of 82% and 80% for these periods. From 2010-2019, the 4CPP had an average EFOR lower than the industry average only in 2011 and experienced EFORs up to four times the industry average. For January-October 2020, Unit 4's EFOR was 17.1%, and Unit 5's EFOR was 12%, while the industry average was approximately 8%.
- In the 4CPP early retirement analyses filed in this docket in response to Chairman Burns's letter of August 11, 2020, APS had its consultant E3 make a number of assumptions that were illogical—not including CO_2 costs (although they were included in its 2020 IRP), assuming that 4CPP's annual generation would remain flat between 2019 and 2031, assuming a battery storage capacity credit between 50 and 60% (although E3 has used 80-90% in California), assuming that 4CPP's EFOR would decline substantially, assuming that 4CPP's O&M costs would grow at a rate less than half the rate they grew between 2010 and 2019, and not assuming any avoided maintenance or capital costs leading up to retirement.
- Until APS made its Clean Energy Commitment, all indications were that the SCRs would provide approximately a cumulative 484 months of service (April 2018 to July 2038). As a result of the now planned retirement date of 2031 as well as the change to seasonal operations in fall 2023, the SCRs will only provide approximately a cumulative 259 months of service (158 months for the full-time unit and 101 months for the seasonal unit, with operations until July 2031).

The evidence also shows that APS considered the prudency of going forward with and completing the SCRs project to have been established when APS was granted authorization to acquire 4CPP Units 4 and 5, with the only inquiry left as to prudency being whether APS had the

SCRs constructed appropriately and at a reasonable cost. It is possible that the Commission shares some responsibility for APS's misunderstanding, although the Commission's prior decisions related to the installation of the SCRs for Units 4 and 5 did not establish the prudency of completing the SCRs project, as is evidenced by the language used in Decision No. 74876 and in the Settlement Agreement approved in Decision No. 76295.

We are cognizant that the SCRs were used and useful during the TY and most notably during the heat storm in August 2020 and that APS has maintained that they are crucial to reliability of service during the summer months. Based on all of the evidence in this matter and the changing circumstances that have occurred since APS first decided to install the SCRs, we believe that it is just and reasonable that APS be authorized partial recovery for its SCRs expenditures. In reaching this conclusion, we were influenced by the fact that APS has now committed to using one of the Units only seasonally beginning in 2023 and to closing the 4CPP in 2031. Both the move to seasonal usage and the closure of the 4CPP will benefit APS's ratepayers, the public, and the environment, and both show that APS has begun to analyze whether the continued operation of 4CPP Units 4 and 5 is economically responsible.

We find that it is just and reasonable and in the public interest to authorize APS to include in rate base the SCRs investments, including the SCRs deferral and the debt return on the SCRs deferral, with the exception of $215.5 million based on a finding of planning imprudence.[3]

APS shall distribute the $215.5 million exclusion on a pro-rata basis through adjustments to each of the following components of rate base for which APS sought recovery herein for the SCRs and SCRs Deferrals: the SCRs, the SCRs Deferral, and the SCRs Debt Deferral; the accumulated depreciation/amortization for the SCRs, the SCRs Deferral, and the SCRs Debt Deferral; and ADIT for the SCRs, the SCRs Deferral, and the SCRs Debt Deferral. In calculating the numbers above, APS shall depreciate/amortize the SCRs, the SCRs Deferral, and the SCRs Debt Deferral based on an end of life of July 2031. Additionally, APS shall make a corresponding adjustment to its operating expenses for the depreciation on the adjusted SCRs balance and shall include that adjusted figure when calculating its revenue requirement resulting from this Decision.

Additionally, we will permit APS to record SCRs costs incurred after December 31, 2020 through the effective date of new rates in this case, as deferrals and to request recovery for the additional SCRs deferral, at the cost of debt established in this rate case, in its next rate case."

Page 410, Lines 5-18:

DELETE: Language adopted in LMP #3

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[3] Once consequence of this planning imprudence, is the early retirement of the SCRs. Hence, the disallowance of $215.5 million is based on the early (2031) retirement of the SCRs.

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"It is unnecessary, at this time, for us to engage in a legal analysis concerning the Commission's authority to require or authorize APS to use securitization for recovery of any of its assets."

Page 410, Lines 19-26:

INSERT:

"**B. 4CPP Replacement; APS's Next IRP**

In consideration of our determination on the SCRs, APS's Clean Energy Commitment, and the advocacy of the parties herein such as the Sierra Club and the Citizen Groups, we will require APS to complete, for inclusion in its next IRP, a comprehensive retirement assessment for the 4CPP, including evaluation of retirement of either or both units before 2031. In conducting its assessment, APS shall use realistic numbers for items such as carbon costs, avoidable O&M and capital expenditures, and capacity credits for storage, and APS shall include its justification for using the numbers selected when its IRP is filed. In its pre-2031 retirement analyses, APS shall not include any termination liability or restrictions beyond those to which APS was subject under the CSA as of March 3, 2021."

Page 427, Lines 11-12:

DELETE: Language adopted in LMP #3

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"4. Clear and convincing evidence has been presented that APS did not monitor the economics of its investments in the SCRs project after the project commenced and was not open to changing its course once the SCRs project had begun, both of which were inconsistent with its duties as a regulated utility. Thus, it is just, reasonable, and in the public interest to allow APS only partial recovery for its SCRs investments."

Page 428, Lines 7-8:

DELETE: Language adopted in LMP #3

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"IT IS FURTHER ORDERED that APS shall be permitted to include in rate base APS's SCRs investments, SCRs Deferral, and SCRs Debt Deferral, with the exception of $215.5 million.

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IT IS FURTHER ORDERED that APS shall distribute the $215.5 million exclusion on a pro-rata basis through adjustments to each of the following components of rate base for which APS sought recovery herein for the SCRs and SCRs Deferrals: the SCRs, the SCRs Deferral, and the SCRs Debt Deferral; the accumulated depreciation/amortization for the SCRs, the SCRs Deferral, and the SCRs Debt Deferral; and ADIT for the SCRs, the SCRs Deferral, and the SCRs Debt Deferral.

IT IS FURTHER ORDERED that in calculating the numbers above, APS shall depreciate/amortize the SCRs, the SCRs Deferral, and the SCRs Debt Deferral based on an end of life of July 2031.

IT IS FURTHER ORDERED that APS shall make a corresponding adjustment to its operating expenses for the depreciation on the adjusted SCRs balance and shall include that adjusted figure when calculating its revenue requirement resulting from this Decision.

IT IS FURTHER ORDERED that APS shall be permitted to record SCRs costs incurred after December 31, 2020 through the effective date of new rates in this case, as deferrals and to request recovery for the additional SCRs deferral, at the cost of debt established in this rate case, in its next rate case."

Page 440, Lines 16-20:

DELETE: Language adopted in LMP #3

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"IT IS FURTHER ORDERED that APS shall complete, and include in its next IRP, a comprehensive retirement assessment for the 4CPP, which shall include (1) evaluation of retirement of either or both units before 2031, prepared using realistic numbers for items such as carbon costs, avoidable O&M and capital expenditures, and capacity credits for storage and not including any termination liability or restrictions beyond those to which APS was subject under the CSA as of March 3, 2021, and (2) APS's justification for using the numbers selected."

Make all conforming changes.

THIS AMENDMENT:

_____ Passed _____ Passed as amended by _____

_____ Failed _____ Not Offered _____ Withdrawn