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Received - 2022-05-25 02:42:06 PM
Control Number - 52485
ItemNumber - 186

**SOAH DOCKET NO. 473-22-1073
PUC DOCKET NO. 52485**

APPLICATION OF SOUTHWESTERN	§	BEFORE THE STATE OFFICE
PUBLIC SERVICE COMPANY TO	§	OF
AMEND ITS CERTIFICATE OF	§	ADMINISTRATIVE HEARINGS
CONVENIENCE AND NECESSITY TO	§	
CONVERT HARRINGTON	§	
GENERATING STATION FROM COAL	§	
TO NATURAL GAS	§	

ALLIANCE OF XCEL MUNICIPALITIES'

FINDINGS OF FACTS AND CONCLUSIONS OF LAW

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May 25, 2022

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AXM's FINDINGS OF FACTS AND CONCLUSIONS OF LAW

I. FINDINGS OF FACT

SPS's Proposed Harrington Conversion Project

1. SPS is requesting approval to retire the coal assets at the Harrington Station effective December 31, 2024 and amend its existing CCN to convert all three of the Company's Harrington coal-fired generating units to burn natural gas, and to construct, own and operate a new pipeline to supply natural gas to the Harrington Generating Station. [AXM Exh. 1 – Norwood Dir. at 4].
2. SPS estimates that the cost of the conversion project will be approximately \$65 million to \$75 million (on a Total Company basis), including the cost of the natural gas pipeline. [AXM Exh. 1 – Norwood Dir. at 4].
3. The Harrington Generating Station consists of three coal-fired generating units located in Potter County, Texas, with the total net generating capacity of 1,050 MW. [AXM Exh. 1 – Norwood Dir. at 5].
4. SPS has stated that the impetus for the Harrington Conversion Project is that the Harrington coal units were not able to meet the EPA's NAAQS SO₂ emission standard of 75 parts per billion as measured based on the 99th percentile of 1-hour daily maximum concentrations. [AXM Exh. 1 – Norwood Dir. at 5].
5. SPS estimates that the cost of adding environmental controls to reduce SO₂ emissions from the Harrington units to a level necessary to continue operating on coal and comply with NAAQS would range from \$85 million to \$185 million.

6. SPS presented its compliance plan to convert the Harrington units to burn natural gas to the Texas Commission on Environmental Quality (“TCEQ”) and an Agreed Order was finalized in October of 2020 providing that SPS would cease coal operations by December 31, 2024. [AXM Exh. 1 – Norwood Dir. at 5].
7. In 2020 SPS conducted a Request for Information (“RFI”) for replacement capacity and energy to replace the Tolk coal units. [AXM Exh. 2 – SPS Response to AXM 1-18, at 4 of 7].
8. SPS’s 2020 RFI contemplated a scenario in which all SPS’s coal-burning units were retired or replaced before 2030. [AXM Exh. 2 – SPS Response to AXM 1-18 at 4 of 7].
9. SPS did not issue an RFI or an RFP specifically pertaining to its Harrington analyses. [AXM Exh. 1 – Norwood Dir. at 8-9].

SPS’s Forecasted System Needs

10. SPS has a planning load forecast of 4,264 MW by 2025 and 4,533 by 2030. [AXM Exh. 1 – Norwood Dir. at 7].
11. SPS still has the time to expeditiously conduct a new competitive bidding process. [AXM Exh. 1 – Norwood Dir. at 9].
12. The Harrington units represent over 20% of SPS’s total system generating capacity and would provide voltage support to SPS’s system. [AXM Exh. 1 – Norwood Dir. at 8].
13. The ramp rates for the converted units is 2 MW per minute and SPS did not include the proposed Harrington gas unit start-up times in the Company’s production modeling. [AXM Exh. 1 – Norwood Dir. at 8].
14. SPS’s production modeling for the Company’s Cost Benefit Analysis of its Harrington Conversion Project indicates that the average annual capacity factors of the converted Harrington units would be less than 0.07% during their first 12 years of service (2025-2036). [AXM Exh. 1 – Norwood Dir. at 8].
15. SPS could defer the need for replacement of the Harrington coal units in 2025 for several years by deferring the Company’s current plans to retire approximately 650 MW of capacity

supplied from other SPS gas-fired units over the next several years. [AXM Exh. 1 – Norwood Dir. at 9].

16. In conjunction with deferring the Company’s current plans to retire approximately 650 MW of capacity supplied from other SPS gas-fired units, SPS could also rely on short-term capacity purchases as it has done in the past. [AXM Exh. 1 – Norwood Dir. at 9].
17. SPS’s 2021 Integrated Resource Plan (“IRP”) identifies new gas-fired combustion turbines as the best resource for serving the Company’s future system capacity needs. [AXM Exh. 1 – Norwood Dir. at 9].
18. SPS could locate new gas-fired combustion turbines at the existing Harrington Station site to minimize interconnection cost. [AXM Exh. 1 – Norwood Dir. at 9].
19. Interconnection rights do not expire until three years after a resource is taken out of service. [AXM Exh. 14 – SPS Response to AXM 5-18].
20. Older converted gas-fired units are not well suited to back up renewable energy resources and are forecasted to produce very little energy benefits for the SPS system. [AXM Exh. 1 – Norwood Dir. at 9].
21. Converted Harrington units are not the best option for supplying voltage regulation or renewable energy backup service requirements of the SPS system. [AXM Exh. 1 – Norwood Dir. at 10].

SPS’s Cost Benefit Analysis (“CBA”)

22. SPS evaluated two solutions for disposition of the Harrington coal units: 1) installing the necessary emissions controls to continue operations of the Harrington units using coal; and 2) ceasing Harrington coal operations at the end of 2024 and converting one or two of the units to natural gas and replacement of the remaining units with other resources. [AXM Exh. 1 – Norwood Dir. at 11; *see also* SPS Exh. 7 – Elsey Dir. at 26].
23. SPS evaluated six scenarios concerning the disposition of the Harrington coal units. [AXM Exh. 1 – Norwood Dir. at 11].
24. SPS’s Scenario 1 contemplated retirement and replacement of all Harrington Units by the end of 2024. [AXM Exh. 1 – Norwood Dir. at 11].

25. SPS's Scenario 2 contemplated converting all Harrington units to natural gas by the end of 2024. [AXM Exh. 1 – Norwood Dir. at 11].
26. SPS's Scenario 3 contemplated installing Dry Sorbent Injection SO₂ controls on all Harrington Units by the end of 2024. [AXM Exh. 1 – Norwood Dir. at 11].
27. SPS's Scenario 4 contemplated installing Spray Dryer Absorbent SO₂ controls on all Harrington Units by the end of 2024. [AXM Exh. 1 – Norwood Dir. at 11].
28. SPS's Scenario 5 contemplated retiring Harrington Units 1 and 2 then convert Harrington 3 to natural gas by the end of 2024. [AXM Exh. 1 – Norwood Dir. at 12].
29. SPS's Scenario 6 contemplated retiring Harrington Unit 1 then convert Harrington Units 2 and 3 to natural gas by the end of 2024. [AXM Exh. 1 – Norwood Dir. at 12].
30. The Study Period of SPS's 2021 Economic Analysis considered a 20-year period, 2022 through 2041. [AXM Exh. 1 – Norwood Dir. at 12].
31. The Net Present Value ("NPV") of SPS's Scenario 2, over a 20-year period is \$11,949 million. [AXM Exh. 1 – Norwood Dir. at 12].
32. The NPV of SPS's Scenario 1, over a 20-year period is \$12,072 million. [AXM Exh. 1 – Norwood Dir. at 12].
33. The NPV of SPS's Scenario 3, over a 20-year period is \$12,388 million. [AXM Exh. 1 – Norwood Dir. at 12].
34. The NPV of SPS's Scenario 4, over a 20-year period is \$12,644 million. [AXM Exh. 1 – Norwood Dir. at 12].
35. The NPV of SPS's Scenario 5, over a 20-year period is \$12,011 million. [AXM Exh. 1 – Norwood Dir. at 12].
36. The NPV of SPS's Scenario 6, over a 20-year period is \$11,944 million. [AXM Exh. 1 – Norwood Dir. at 12].
37. The difference between Scenarios 1, 2, 5, and 6 is 1% or less. [AXM Exh. 1 – Norwood Dir. at 12].

38. SPS's 2021 Updated Economic Analysis for Harrington included several sensitivity analyses addressing uncertainty in key variables, including: 1) base high, and low natural gas and market energy price forecasts; 2) a range of sensitivities for transmission interconnection costs for new resources (\$200/kW, \$400/kW, and \$600/kW); and 3) financial (low) and planning (high) load forecast. [AXM Exh. 1 – Norwood Dir. at 13; *see also* SPS Exh. 7 – Elsey Dir. at 30].
39. The sensitivity cases SPS evaluated do not significantly change the Base Case rankings of the Scenarios, with the cost of Scenario 1 being 0.4% higher than the total modeled production costs of the proposed conversion option (Scenario 2) over the 20-year study period. [AXM Exh. 1 – Norwood Dir. at 13].
40. The Company's sensitivity analysis using the low end (\$200/kW) of SPS's forecasted interconnection costs along with the base case natural gas price and Planning Load Forecast, also predicts a cost difference of 0.6% between the conversion project (Scenario 2) and the retire-and-replace alternative (Scenario 1). [AXM Exh. 1 – Norwood Dir. at 14].
41. SPS's 2021 Economic Analysis of the Harrington Station gas conversion and retirement analysis indicates the cost of converting all three Harrington coal units to burn natural gas is essentially the same as the costs of retiring and replacing one or more of the Harrington units. [AXM Exh. 1 – Norwood Dir. at 15].
42. The converted Harrington units: 1) would have only approximately 15 years of remaining service life; 2) are not forecasted by SPS to provide significant energy benefits because of the relatively low operating efficiency and high variable operating costs; and 3) are not optimally suited to provide the quick start/high ramp rate service required for backup of the Company's intermittent renewable resources. [AXM Exh. 1 – Norwood Dir. at 15].
43. Under SPS Scenario 1, SPS could use the existing Harrington Station infrastructure and transmission interconnection facilities for new gas-fired combustion turbines which SPS plans to add by 2030 according to the Company's July 2021 IRP. [AXM Exh. 1 – Norwood Dir. at 16].
44. It may be economically feasible to accelerate the in-service dates of new combustion turbines at the Harrington site if necessary to address any voltage regulation concerns experienced

following retirement of the existing Harrington coal units. [AXM Exh. 1 – Norwood Dir. at 16].

45. SPS may be able to take advantage of tax credits offered for new solar and wind resources, which the Company’s 2021 Harrington economic analysis indicates would be added to replace a portion of the 1,050 MW capacity loss caused by the planned retirement of the Harrington coal units at the end of 2024. [AXM Exh. 1 – Norwood Dir. at 16].

II. CONCLUSIONS OF LAW

1. SPS is subject to the Public Utility Regulatory Act (PURA), Tex. Util. Code § 11.001 – 58.302 (West 2016 & Supp. 2017), §§ 59.001-66.016 (West 2007 & Supp. 2017).
2. The Commission exercises regulatory authority over SPS, and jurisdiction over the subject matter of this application under PURA §§ 11.004(1) and 31.002(6).
3. SOAH has jurisdiction over matters related to the conduct of the hearing and the preparation of a proposal for decision in this docket, under PURA § 14.053 and Tex. Gov’t Code § 2003.049.
4. This docket was processed in accordance with the requirements of PURA and the Texas Administrative Procedures Act, Texas Government Code chapter 2001.
5. SPS is a fully integrated generation, transmission, and distribution utility that serves retail electric customers in Texas and New Mexico.
6. SPS’s Scenarios 1, Retirement and Replacement of all Harrington units by the end of 2024, is a more reasonable solution than SPS’s proposed Harrington Conversion Project.
7. In the event the Commission approves SPS’s proposed Harrington Conversion Project, AXM’s Proposed \$70 million cost cap should be adopted.

Respectfully submitted,

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**ATTORNEYS FOR ALLIANCE OF XCEL
MUNICIPALITIES**

CERTIFICATE OF SERVICE

I certify that I have served a copy of *Alliance of Xcel Municipalities' Proposed Findings of Fact and Conclusions of Law* on the 25th day of May, 2022 upon all parties of record via electronic mail, in accordance with the Order Suspending Rules, issued in Project No. 50664.

By: /s/ Leslie Lindsey