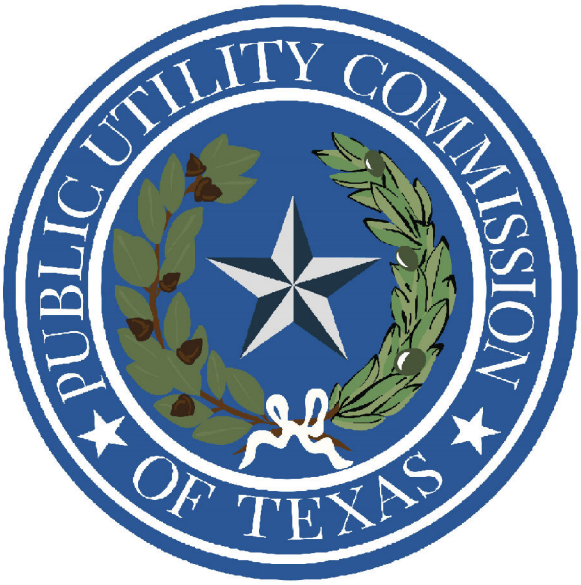

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APPLICATION OF SOUTHWESTERN PUBLIC SERVICE COMPANY TO AMEND ITS CERTIFICATE OF CONVENIENCE AND NECESSITY TO CONVERT HARRINGTON GENERATING STATION FROM COAL TO NATURAL GAS	**§**	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

SOUTHWESTERN PUBLIC SERVICE COMPANY'S INITIAL BRIEF

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I. INTRODUCTION

The testimony provided by Southwestern Public Service Company ("SPS" or the "Company"), the Independent Evaluator ("IE"), and the Office of Public Utility Counsel ("OPUC") in this proceeding, all support the need for the full conversion of Harrington Generation Station ("Harrington") from coal to natural-gas fired generation. In particular, the undisputed evidence demonstrates that only full conversion would support SPS's obligation to maintain its 12% Southwest Power Pool reserve margin requirement in 2026 and that full conversion is the most cost-effective option among feasible alternatives for customers.[1]

The record further supports full conversion because:

- SPS was proactive and thorough in its examination of all potential scenarios related to replacing, converting, or retrofitting Harrington, including an extensive analysis of 36 different retirement or replacement options that ranged from the installation of environmental controls and/or retirement of some of the units at the facility, to the building of new combustion turbine generation at the Harrington site or in other locations on the SPS system;[2]

- SPS conducted an extensive Request for Information ("RFI"), validated by the IE, that was designed to and did, in fact, draw *more* attention and bidders with potential

[1] Direct Testimony of William A. Grant, SPS Ex. 5 at 15:3-5; Direct Testimony of Ben R. Elsey, SPS Ex. 7 at 18-22 and 33-36.

[2] Direct Testimony of D. Dean Koujak, SPS Ex. 10 at Attachment DDK-1 at 28.

replacement options for Harrington than a traditional Request for Proposals would have produced, and conversion was still determined to be the best and most cost-effective option;[3]

- The cost of conversion, $45 million to $53 million for Texas customers, is a fraction of the $500 million to $1 billion that it would cost to install completely new generation capable of replacing Harrington's current capacity;[4]

- SPS has an undisputed continuing capacity need for the 1,050 MW supplied by Harrington;[5] and

- Conversion is possible because SPS has been a good steward of the Harrington units, which are already capable of operating on natural gas, such that they can effectively continue to perform as peaking resources in the Southwest Power Pool market for the benefit of SPS customers.[6]

Finally, the evidence also demonstrates that conversion is the most timely solution.[7] Full conversion presents the lowest risk of SPS being placed in situation where it might lack needed capacity in 2026 and beyond.[8]

Nevertheless, two parties oppose SPS's request – albeit in different manners. The Alliance of Xcel Municipalities ("AXM") suggests that SPS should replace Harrington with entirely new gas-fired combustion turbines in lieu of conversion.[9] The Sierra Club suggests that SPS should convert only two of the three Harrington units and either retire or "mothball" the third unit at the facility in the near term.[10] In either case, SPS has demonstrated that both AXM and the Sierra

[3] Tr. at 72:13-22 (Elsey Redirect) (Apr. 26, 2022); SPS Ex. 8

[4] Direct Testimony of Mark Lytal, SPS Ex. 12 at 18:3-5; Rebuttal Testimony of William A. Grant, SPS Ex. 6 at 14:5-15:2; Rebuttal Testimony of Ben R. Elsey, SPS Ex. 8 at 37:19-38:3; Tr. at 172:3-15 (Elsey Redirect) (Apr. 26, 2022).

[5] SPS Ex. 5 at 9:3-4; SPS Ex. 6 at 6:5-8.

[6] SPS Ex. 6 at 13:10-15; Rebuttal Testimony of Mark Lytal, SPS Ex. 13 at 7:6-13.

[7] SPS Ex. 6 at 12:10-17; SPS Ex. 13 at 8:1-11:10.

[8] SPS Ex. 8 at SPS Ex. 7 at 39:13-17; SPS Ex. 5 at 15:9-12.

[9] Direct Testimony of Scott Norwood, AXM Ex. 1 at 18:27-19:2.

[10] Direct Testimony of Devi Glick, Sierra Club Ex. 1 at 55:6-14 (In this brief, page citations to Sierra Club exhibits refer to the bates stamp on the lower right corner of the page);

Club suggest risky, costly and imprudent paths forward. AXM's suggested path forward would force SPS to incur substantial costs to extend the life of severely aged gas assets and procurement of large amounts of market capacity during the planning and buildout time required for new facilities, would involve building the same natural gas pipeline that conversion requires, and could cost SPS customers approximately $1 billion.[11] Put differently, SPS needs the 1150 MW of capacity supplied by Harrington to reliably meet firm load and it makes no sense to retire 1150 MW of solid capacity only to replace it with 1150 MW of brand new replacement gas turbines. The Sierra Club's proposal would likewise involve significant costs associated with "mothballing" one unit, would undisputedly leave SPS without needed capacity in 2026, puts at risk SPS's existing interconnection rights for the full 1,050 MW at Harrington, and involves unnecessary and unjustified reliability risks given that the cost difference between converting only two or all three units at Harrington is only $2.6 million.[12] As detailed below, SPS's proposal presents the Public Utility Commission of Texas ("Commission") with the most innovative and cost-effective solution for SPS's customers and should be approved.

II. JURISDICTION, NOTICE AND PROCEDURAL HISTORY (PO ISSUES 1 THROUGH 7)

SPS is an electric utility, a public utility, and a utility as those terms are defined in Public Utility Regulatory Act ("PURA") §§ 11.004(1) and 31.002(6), and SPS is subject to the jurisdiction of the Commission under PURA. The Commission has jurisdiction over this Certificate of Convenience and Necessity ("CCN") Amendment application under PURA

[11] SPS Ex. 6 at 7:11-16; SPS Ex. 13 at 15:7-20;

[12] SPS Ex. 6 at 20:4-12; SPS Ex. 13 at 15:7-20; SPS Ex. 8 at 5:22-6:3.

§§ 37.053, 37.056, and 37.058 as well as under 16 Texas Administrative Code ("TAC") § 25.101(b).

SPS is a fully integrated generation, transmission, and distribution utility that serves retail electric customers in Texas and New Mexico.[13] SPS also sells power to wholesale electric customers. The Commission regulates SPS's Texas retail operations; the New Mexico Public Regulation Commission ("NMPRC") regulates SPS's New Mexico retail operations; and the Federal Energy Regulatory Commission regulates SPS's wholesale power sales and SPS's transmission of electricity in interstate commerce.

On August 27, 2021, SPS filed its application and requested that the Commission grant an amendment to SPS's CCN authorizing SPS to convert all three units at Harrington from coal to natural gas and to authorize SPS to construct, own, and operate a new pipeline to supply natural gas to Harrington. SPS estimated the total cost of the proposed conversion and construction of the pipeline in the range of $65 million to $75 million, including Allowance for Funds Used During Construction ("AFUDC"), with $45 million to $53 million allocated to Texas.[14] SPS proposed the following timeline, assuming all regulatory approvals are obtained: pipeline construction to begin in 2023 to support a commissioning date in August 2024, conversion of the generating units in September 2024 following peak summer demand, with the final unit conversion completing in Spring 2025.[15]

[13] Application Southwestern Public Service Company to Amend its Certificate of Convenience and Necessity to Convery Harrington Generating Station from Coal to Natural Gas, SPS Ex. 1 at 1-2.

[14] SPS Ex. 12 at 18:3-7. *See also*, Attachment ML-1 (total estimate of $74,589,417).

[15] *Id.* at 10:20-11:2.

The Commission found the application administratively complete on October 6, 2021.[16] The application was referred to the State Office of Administrative Hearings ("SOAH") on December 13, 2021.[17] The following parties were granted intervenor status in this docket: Adobe Creek, Ltd.; Windtree Manor, Ltd.; Texas Industrial Energy Consumers ("TIEC"); the Sierra Club; the AXM; and OPUC. Commission Staff is also a party to this docket. On December 16, 2021, the Commission issued a Preliminary Order containing a list of issues to be addressed in this proceeding.[18]

SPS mailed notice of the public meeting held on April 29, 2021 to all landowners who own property within 500 feet of Harrington and the proposed pipeline.[19] SPS mailed notice of the application by mail to the City of Amarillo, the County Judge of Potter County, the Texas Parks and Wildlife Department ("TPWD"), and all directly affected landowners.[20] SPS served notice of the application by email to all parties of record in SPS's most recent rate case, Docket No. 51802.[21] On November 4, 2021, SPS filed its proof of notice attesting to the method and recipients of notice and supplemented that proof of notice on November 23, 2021.[22] On November 29, 2021, Commission Staff recommended notice be found sufficient under 16 TAC § 22.52(a). In Order No. 7 issued on November 29, 2021, the Commission found the notice sufficient.

SPS filed direct testimony with its application on August 27, 2021. OPUC, AXM, and Sierra Club filed direct testimony on March 25, 2022. Commission Staff filed direct testimony on

[16] Order No. 4 at 2 (Oct. 6, 2021).

[17] Order of Referral at 1 (Dec. 13, 2021).

[18] Preliminary Order (Dec. 16, 2021).

[19] Direct Testimony of Anastacia Santos, SPS Ex. 17 and Attachment AS-2 at 21.

[20] SPS's Proof of Notice, SPS Ex. 2; Letter to ALJ re Notice Supplement, SPS Ex. 4.

[21] SPS Ex. 2; SPS Ex. 4.

[22] SPS Ex. 2; SPS Ex. 4.

April 11, 2022. SPS filed rebuttal testimony on April 13, 2022. TIEC filed a statement of position on April 20, 2022. Commission Staff filed a statement of position on April 21, 2022. Neither Adobe Creek, Ltd. nor Windtree Manor, Ltd. filed testimony or a statement of position in this proceeding.

The hearing on the merits in this matter was held on April 26, 2022. SPS, TIEC, OPUC, AXM, and Commission Staff participated in the hearing on the merits. Neither Adobe Creek, Ltd. nor Windtree Manor, Ltd. participated in the hearing on the merits. Pursuant to SOAH Order No. 3, initial briefs are due on May 11, 2022.

III. ARGUMENT

A. Amendment of SPS's CCN for Harrington is in the Public Interest (PO Issues 10 through 16, 30, 31, 32).

1. SPS will continue to need Harrington's 1,050 MW of capacity to serve customers and sustain system reliability well past December 31, 2024.

The evidence demonstrates that Harrington's coal-fired units have been providing 1,050 MW of reasonably priced and reliable power to Texas customers since the mid-1970s.[23] However, pursuant to an order issued by the Texas Commission on Environmental Quality ("TCEQ"), Harrington must cease operating on coal by December 31, 2024.[24] The requirement to cease operations as a coal-fired facility stems from National Ambient Air Quality Standards ("NAAQS") emissions quality monitoring at Harrington from 2017 to 2019[25] and an agreed enforcement order the TCEQ issued ("Agreed Order") that permits a non-attainment designation for areas surrounding Harrington.[26]

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[23] SPS Ex. 5 at 17:15-17.

[24] Direct Testimony of Jeffrey L. West, SPS Ex. 15 at 10:17-18.

[25] SPS Ex. 15 at 8:20-21.

[26] *Id.* at 10:2-6, Attachment JLW-1.

The evidence is also undisputed that SPS will continue to need the capacity and voltage support provided by the Harrington units well after December 31, 2024.[27] In fact, no party disputes that Harrington provides critical transmission voltage support to SPS's system.[28] Likewise, the evidence is undeniable that, absent conversion, to continue providing the transmission voltage support necessary for the system, SPS would need to enhance its voltage stability capabilities as well as add new firm and dispatchable replacement resources.[29] In fact, if SPS is forced to operate its system without Harrington or adequate replacement resources, the evidence shows that SPS's system will be subject to serious reliability risks at certain times, especially during severe weather events, depending on the availability of renewable generation and voltage demanded by the system.[30] And, without conversion, SPS will also be forced below the Southwest Power Pool's minimum reserve margin of 12%.[31] In addition, replacement resources, if they could be found, would likely be cost prohibitive.[32]

In short, because of the necessary capacity, generation, and voltage support supplied by Harrington, retirement of the facility without a replacement resource for Harrington's 1,050 MW would immediately leave SPS customers without reliable service.[33] Conversion is a cost-effective,

[27] SPS Ex. 7 at 10:12-11:3.

[28] Each of the intervenor witnesses acknowledge the need for capacity that Harrington currently provides. *See* AXM Ex. 1 at 5:10-11; Sierra Club Ex. 1 at 29:1-5; and Direct Testimony of Karl Nalepa, OPUC Ex. 1 at 24:19-25:4.

[29] SPS Ex. 7 at 28:12-15; SPS Ex. 5 at 13:15-20.

[30] SPS Ex. 7 at 39:13-17; SPS Ex. 5 at 15:9-12.

[31] SPS Ex. 7 at 10:17-20.

[32] SPS Ex. 8 at 34:7-16, 40:7-42:13.

[33] *Id.* at 31:3-7; SPS Ex. 5 at 14:14-16.

reliable, and simple solution that defers the need for new and costly firm and dispatchable replacements.[34]

2. SPS's request is the best option for Texas customers.

The evidence demonstrates that SPS extensively evaluated every potential option at Harrington. Namely, in addition to its proposal to convert all three units to natural gas, SPS considered replacing the Harrington units with new gas units, installing environmental controls, retiring all three units, and retiring one or two units.[35] SPS's evaluation of these options included consideration of actual bids SPS received from market participants in response to the RFI SPS issued.[36] Moreover, SPS evaluated the Southwest Power Pool interconnection process and whether it was feasible to apply for new generation proposals that could achieve commercial operation prior to January 1, 2025, the compliance date in the TCEQ's Agreed Order.[37] Based on this analysis, SPS determined that conversion of all three Harrington units to natural gas was the best cost effective option among feasible alternatives to ensure SPS's ability to maintain needed capacity to serve its customers and sustain reliability of its system.

Conversion is a prudent solution to meet the NAAQS compliance requirements in the TCEQ Agreed Order, and SPS can complete the conversion within the required timeframe because it simply entails the construction of a new pipeline and making minor adjustments to the existing boilers, which are already built to operate on natural gas.[38] As noted above, conversion also allows

[34] SPS Ex. 7 at 28:12-15; SPS Ex. 8 at 6:20-7:0; SPS Ex. 5 at 14:16-19; Tr. at 64:23-65:13 (Elsey Cross) (Apr. 26, 2022).

[35] SPS Ex. 7 at 24:3-12.

[36] Tr. at 69:3-25 (Elsey Cross (Apr. 26, 2022); Rebuttal Testimony of D. Dean Koujak, SPS Ex. 11 at 13:13-14:21; SPS Ex. 7 at 26:18-19.

[37] SPS Ex. 7 at 20:12-8.

[38] SPS Ex. 5 at 9:18-10:8.

SPS to retain the 1,050 MW of year-round dispatchable and reliable capacity and energy that it depends on today to meet customer demand and its Southwest Power Pool reserve margin requirements.[39]

The evidence also demonstrates that the cost of conversion is reasonable. The total estimated cost of converting all three units at Harrington ranges from $65 to $75 million ($45 to $53 million on a Texas retail basis), the majority of which is the cost to construct a new pipeline that will be necessary to provide the three units with natural gas.[40] The record is also undisputed that the cost to construct the pipeline is the same regardless of whether two or three units are converted.[41] This is because the size of pipe necessary to serve two units is the same size necessary to serve three—20 inches.[42] In fact, because most of the conversion cost is in the pipeline, the incremental capital cost of converting the third unit is only approximately $2.6 million. Stated differently, SPS can maintain the full 1,050 MW of generating capacity by converting the third unit at a cost of $7.65 per kW, a very low cost of capacity.[43] The additional 340 MW of generation capacity of the third unit at Harrington (as opposed to converting only two units) is only an additional incremental $2.6 million of investment.[44] Likewise, it is undisputed in the record that the cost to build new gas combustion units capable of replacing Harrington would range between $500 million and $1 billion.[45] In sum, contrary to the recommendations of AXM and the Sierra

[39] SPS Ex. 7 at 9:3-12, 10:12-10:3.

[40] SPS Ex. 12 (Lytal Direct) at 18:3-9 and Attachment ML-1.

[41] SPS Ex. 7 at 37:7-19.

[42] SPS Ex. 12 at 11:12-13.

[43] SPS Ex. 8 at 10:12-13.

[44] SPS Ex. 7 at 37:7-19; SPS Ex. 12 at 11:8-13.

[45] SPS Ex. 8 at 37:10-38:3; SPS Ex. 6 14:15-16:2.

Club, SPS's proposal avoids unnecessary costs and preserves resources that SPS's customers have already invested in.

3. Harrington is fully capable of serving as a cost-effective peaking resource.

The record is also clear that Harrington can serve as the peaking resource that SPS needs after 2024. This is because the units have been well maintained and, in the Southwest Power Pool day-ahead market, SPS will know within 24 hours of when the units are necessary for reliability or voltage support needs.[46] In fact, the evidence demonstrates that Harrington is already successfully acting as a peaking unit during different times of the year, inclusive of providing substantial reactive power, voltage support and frequency support.[47] With gas as the fuel source the units will be even more responsive and flexible than current coal-fired operations because limitations related to coal operations will no longer apply, such that in an emergency the facility will be able to reach full operation in less than two hours.[48] While combustion turbines might have faster ramp-rates than a converted Harrington, Harrington will be more than sufficient for its needed purpose,[49] as it has been demonstrated to perform, especially considering the extreme cost difference between conversion and that of building completely new units.

4. SPS's Request for Information was thorough, reasonable, certified by an Independent Evaluator and more effective than a Request for Proposals.

The evidence also demonstrates that SPS took the necessary steps to thoroughly evaluate all options with respect to Harrington. In early September 2020, SPS issued a RFI to identify

[46] SPS Ex. 6 at 22:6-9; SPS Ex. 13 at 7:6-13.

[47] SPS Ex. 13 at 7:15-21.

[48] SPS Ex. 6 at 22:1620; SPS Ex. 13 at 7:16-19.

[49] SPS Ex. 6 at 22:20-23:3.

potential and existing generation resources in the market to replace the coal-fired generation at Harrington Station.[50] That RFI sought an understanding of the extent to which participants in the market could develop, construct, and bring to commercial operation generation resources by the December 31, 2024 deadline for ceasing coal operations.[51] The RFI was broad in scope—it solicited new-build and existing generation resources of all types, including gas-fired resources, wind, solar and energy storage options and it allowed flexibility for any future commercial operation date for newly built projects.[52] In terms of substance, the RFI included a scenario to replace all of SPS's coal-fired units, which includes all the capacity at Harrington.[53]

The RFI was also designed "with a very low bar" for participation to ensure project developers would be motivated to aggressively submit bids to allow SPS to analyze a wide range of potential replacement resources and related pricing.[54] The evidence shows the RFI was successful. SPS received 18 bids ranging from new gas units, renewable energy, and battery energy storage located throughout SPS's service territory.[55] SPS even received proposals to interconnect new generation at Harrington and other SPS sites.[56] The IE confirmed that: (1) the design of the RFI was consistent with similar solicitations with respect to its clarity and brevity; (2) SPS conducted the RFI process in a fair and complete fashion that was in line with the intent of the solicitation and overall process; and (3) SPS used a fair solicitation and evaluation process

[50] SPS Ex. 10 at 9:3-6.

[51] *Id.* at 9:8-10.

[52] *Id.* at 9:12-14.

[53] *Id.* at 7:19-8:3.

[54] Tr. at 71:25-72:1 (Elsey Redirect) (Apr. 26, 2022).

[55] SPS Ex. 10 at 10:15-16; Tr. at 69:22-25, 70:19-22 (Elsey Redirect) (Apr. 26, 2022).

[56] Tr. at 70:21-24 (Elsey Redirect) (Apr. 26, 2022).

for the bids received.[57] Indeed, the IE observed that SPS's RFI process was more thorough and produced a more robust response that provided SPS with necessary project and pricing information than SPS would have received if it had issued an RFP.[58]

Despite this evidence, certain intervenor witnesses question the effectiveness of the RFI and suggest that either an RFP would have been better because it would produce binding bids or that SPS should be required to issue an RFP at this time.[59] The following evidence shows the contrary:

- It is easier for developers to submit a response to an RFI than respond to an RFP requiring a binding bid because an RFP "typically chills" responses when developers must provide a firm offer within the stated timeline.[60] This means a utility would possibly not have as many potential options and related information to evaluate had it issued an RFP rather than an RFI.[61]

- An RFI is appropriate and effective for obtaining as much information as possible about resource availability and pricing whereas an RFP would trigger significant costs for developers to provide firm bids without producing "appreciably greater certainty around pricing."[62]

- SPS set a low bar for the RFI to "encourage as much price information as we could possibly achieve, and then we incorporated that into our 2021 updated Harrington analysis."[63]

- The RFI did not seek binding bids because, if SPS "issued a very high bar RFP, we would receive very few proposals that were actually qualified" to go into "service before the Harrington units needed to be converted to gas."[64]

[57] SPS Ex. 10 at Att. DDK-1 at 5, 7, 16.

[58] Tr. at 156:22-157:6, 158:11-14, 159:3-12 (Koujak Redirect) (Apr. 26, 2022).

[59] Sierra Club Ex. 1 at 10:21-23; AXM Ex. 1 at 19:16-20:2.

[60] Tr. at 159:3-8 (Koujak Redirect) (Apr. 26, 2022).

[61] Tr. at 159:8-12 (Koujak Redirect) (Apr. 26, 2022).

[62] Tr. at 156:22-157:6, 158:11-14 (Koujak Redirect) (Apr. 26, 2022).

[63] Tr. at 72:19-22 (Elsey Redirect) (Apr. 26, 2022).

[64] Tr. at 72:11-18 (Elsey Redirect) (Apr. 26, 2022).

- By design, the RFI generated a *greater* market response than an RFP and provided a stronger test of the fuel conversion option.[65]

- Issuing a new RFP at this point in time would cause unnecessary delay, placing SPS reserve capacity in jeopardy, and is not likely to identify a cost-effective replacement resource that can be interconnected by 2025 due to the constraints in the Southwest Power Pool and the long lead times tied to new generation.[66]

Furthermore, an RFI, rather than an RFP, was particularly appropriate because SPS had an existing resource that was part of the analysis: conversion of the Harrington units. Specifically, Mr. Koujak, the IE, explained it is "consistent with industry standards to analyze an existing resource to maximize the existing life of the facility to try to extract its remaining value."[67] In this instance, a utility should analyze whether "that existing resource is more feasible, cost-effective, or otherwise preferable compared to other options in the market."[68] Here, SPS was able to do just that and its vigorous analysis confirmed that full conversion is cost-effective and meets SPS's reliability and capacity needs compared to alternative options.

5. SPS presented dependable modeling that supports full conversion.

As part of its direct case, SPS presented the results of a 2021 economic analysis conducted in EnCompass, which is a production cost modeling tool. That analysis demonstrates that conversion of all three Harrington units to operate on natural gas is a prudent solution to meet the NAAQS compliance requirements and preserve the capacity and other benefits of the units.[69] Neither AXM nor the Sierra Club contest SPS's modeling results. In fact, there is no dispute that EnCompass is a reasonable production costing model. Nor is there any dispute that SPS's

[65] SPS Ex. 11 at 13:16-14:21.

[66] *Id.* at 16:18-20, 16:23-17:4.

[67] *Id.* at 17:12-14.

[68] *Id.* at 17:14-16.

[69] SPS Ex. 7 at 6:23-26.

modeling approach—verified by an IE[70]—modeled 36 scenarios under a variety of conditions and sensitivities including:

- base, low, and high natural gas price forecasts and market energy price forecasts;
- financial and planning load forecasts;
- the cost of transmission network upgrades at $200/kW, $400/kW, and $600/kW;
- presenting results over the three-year period of 2022-2024 that coincides with the required retirement date of end-of-year 2024 for coal operations at Harrington;[71] and
- showing results for the 20-year period of 2022-2041 that provides a long-term planning assessment.[72]

The results of SPS's EnCompass modeling support converting all three Harrington units to natural gas.[73] Critically, SPS used assumptions in the EnCompass model that were intentionally advantageous for an early retirement of all three Harrington units to "stress test" whether early retirement could be economical, even under extremely favorable, unlikely, and aggressive assumptions for replacement resources.[74] Using those favorable assumptions for alternatives, SPS's modeling did show that retiring one Harrington unit could potentially cost slightly less—$5 million (net present value ("NPV")) over the 20-year planning period—but those potential savings would be more-than-offset by $39 million (NPV) in additional costs in the short-term period of 2022-2024.[75]

[70] SPS Ex. 10 at 10:4-12:11.

[71] *Id.*, Attachment DDK-1 at 23.

[72] SPS Ex. 7 at 29:14-21.

[73] *Id.* at 32:1-2 (Table BRE-2) and at 387:7-8 (Table BRE-3); *see also id.* at 37:7-19.

[74] SPS Ex. 8 at 32:4-9.

[75] *Id.* at 34:9-14.

In addition, as noted above, retiring one unit puts SPS in a strained resource position and creates reliability risks that can be avoided by converting all three units, at very little incremental cost to customers. SPS definitively supported its modeling approach and results, and no Intervenor witness identified any credible flaws in SPS's modeling.

B. AXM's primary recommendation for new gas generation is not justified by its extreme cost and its alternative recommendations are unnecessary.

The evidence demonstrates that conversion of all three Harrington units is a simple, cost-effective, and feasible solution that allows SPS to cease coal operations by the end of 2024, in compliance with the TCEQ Agreed Order, and seamlessly transition to a new fuel source without disrupting SPS's access to the 1,050 MW of firm and dispatchable capacity that it needs to serve customers. To this end, AXM witness Scott Norwood agrees that SPS needs the 1,050 MW of firm generation that would be provided by the converted Harrington units.[76] However, AXM takes a complex, costly, and misinformed position: require SPS to retire all three Harrington units by the end of 2024 and replace that 1,050 MW of capacity with brand new gas units, even if SPS has to buy expensive short-term capacity or delay retirement of other, extremely old gas units before the new units can be constructed and placed online.[77]

In short, the AXM position would cost SPS customers a considerable amount of money. In fact, it is undisputed that the installation of new combustion turbine generators ("CTGs") would be hundreds of millions of dollars more expensive than conversion—a conservative estimate is at least $500 million.[78] Thus, Mr. Norwood's speculation that new combustion turbines would be

[76] AXM Ex. 1 at 5:10-11.

[77] *Id.* at 5:24-6:9, 11:7-15,

[78] SPS Ex. 8 at 37:19-20.

"slightly more costly in the near-term" than conversion, is an astounding understatement of huge proportions.[79]

That understatement is made possible through Mr. Norwood's misleading representation of certain modeling results. Specifically, SPS analyzed the economics of various replacement scenarios including combinations of retiring, replacing, or converting the units and did so in the context of its *total system* cost of $12 billion over the long-term period of 2022-2041. Using the "Convert All" scenario as the baseline, SPS's modeling showed the NPV costs of other scenarios ranged from $5 million less to $123 million more expensive in the long-term.[80] Specifically, retiring and replacing all of the units with other generation sources would cost at least $123 million more from 2022-2041 than the "Convert All" scenario.[81] That $123 million in additional costs for the "Retire/Replace All" scenario is likely understated because Mr. Elsey used some favorable modeling assumptions to "stress-test" the economics of "Convert All" compared to "Retire/Replace All."[82]

Comparing the results, using the total system cost as the comparison, Mr. Norwood concludes the various replacement and conversion options are "essentially equal" because the costs of the scenarios are within 1% of each other.[83] Mathematically, that is one way to describe the results of the modeling—Mr. Norwood is simply comparing a very large number, $12 billion, with a much smaller numbers, ranging from -$5 million to $123 million. However, this presentation is

[79] AXM Ex. 1 at 11:28-29.

[80] SPS Ex. 7 at 32:1-3 (Table BRE-2).

[81] *Id.*

[82] SPS Ex. 8 at 29:8-14, 32:3-34:4.

[83] AXM Ex. 1 at 14:19-21.

highly misleading and ignores the actual true cost impact to customers, the cost-effectiveness of converting all three units and also critical qualitative issues that support full conversion.

The evidence shows that qualitative issues—not only cost issues that can be quantified—should be fully considered in this case. Specifically, no economic modeling tool is able to independently predict emergency situations or locational reliability constraints that could cause all three units to be needed during this period of permitting, planning, acquiring equipment, and constructing the new units or after the units are converted.[84] Another major issue that is not able to be quantified in the modeling and which Mr. Norwood overlooks is SPS's ability to seamlessly maintain its existing 1,050 MW of interconnection rights at Harrington. If SPS was required to retire even one unit, it could be forced to relinquish 340 MW of interconnection rights and thereby limit its options for existing or future generation at that site.[85] The IE testified that it is hard to quantify the importance of SPS's interconnection rights, but there is no doubt those rights are increasingly valuable due to the costs related to incorporating new-build resources into the Southwest Power Pool system.[86] Finally, conversion avoids supply chain and inflation risks if new CTGs are required.[87] Mr. Norwood's narrow focus on the modeling cost results misses these important issues that support full conversion of the Harrington units.

Additional flaws in AXM's position undermine its support for the installation of new CTGs rather than full conversion. Specifically, Mr. Norwood points to SPS's New Mexico Integrated Resource Plan ("IRP") to argue that SPS plans to install new CTGs in 2030 anyway, so it can

[84] SPS Ex. 11 at 6:17-19.

[85] *Id.* at 9:9-10.

[86] *Id.* at 11:1-4.

[87] *Id.* at 6:16-19; 8:9-14; 9:4-6.

simply accelerate that timing and install the new generation sooner.[88] What Mr. Norwood overlooks, however, is that in the IRP, SPS assumed all Harrington units would be converted to natural gas and SPS would still need new CTGs in the future.[89] Contrary to Mr. Norwood's perspective, new CTGs are not *instead of* converted Harrington units—they are *in addition to* converted Harrington units.

1. Mr. Norwood's recommendation is also based on a misunderstanding of what SPS modeled.

In addition, embedded in Mr. Norwood's recommendation is an erroneous assumption that the "Retire/Replace All" option in SPS's modeling reflects new CTGs—consistent with his recommendation. This assumption was shown to be inaccurate. The EnCompass model selects the most cost-effective portfolio of resources to meet SPS's planning and capacity needs relative to the Harrington replacement options.[90] And, as Mr. Elsey's rebuttal testimony demonstrates, for the "Retire/Replace All" scenario, the most cost-effective combination of replacement resources EnCompass selected was a combination of new wind, solar and gas generation—the recommendation did not include only new CTGs nor did it include them in the timeframe Mr. Norwood identifies.[91] Thus, Mr. Norwood was wrong to suggest that new CTGs would cost the same as the "Retire/Replace All" option when in fact that option is $123 million more expensive than converting all units. And, Mr. Norwood did not independently evaluate or calculate the actual costs of new CTGs.

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[88] AXM Ex. 1 at 11:18-26.

[89] SPS Ex. 8 at 43:11-13.

[90] *Id.* at 40:20-21.

[91] *Id.* at 40:22-41:3.

In analyzing Mr. Norwood's position, Mr. Elsey created additional, specific analysis of the cost of retiring the Harrington units and replacing them with new CTGs at the end of 2024. That analysis demonstrates that compared to converting all units, the cost of new CTGs is $160 million *more expensive over the next two years* and is $119 million *more expensive over the next twenty years*:[92] The chart below is taken from Mr. Elsey's rebuttal.

	2022-2024 ($M)		2022-2041 ($M)	
	Costs Compared to "Convert All"	**NPV**	**Costs Compared to "Convert All"**	**NPV**
Convert All Harrington Units (SPS Position)	$0	$2,450	$0	$11,949
Retire & Replace with New CTGs (AXM Position)	$160	$2,610	$119	$12,068

To be conservative, SPS also used the following assumptions in its cost analysis for new CTGs:

- only four CTGs with a 200 MW summer rating were used in the model rather than five CTGs that would be required to replace the full capacity of Harrington,
- SPS *excluded* the cost of a new gas pipeline that would be required,
- no transmission network upgrade costs were included for the new CTGs,
- SPS used its WAHA gas forecast, which is lower than SPS would use for new generation on the northern portion of its system,
- new economic renewable energy resources were available, and
- SPS assumed the CTGs could be added by the end of 2024, without the need for extending the retirement of existing gas steam units or purchasing capacity.[93]

Each of the items above, if adjusted to reflect legitimate market risks, would add even more millions of dollars of costs to new CTGs as opposed to the cost-effective conversion scenario. In

[92] *Id.* at 41:22-42:2.

[93] *Id.* at 41:6-19.

particular, the cost of a new gas pipeline is not avoided if new CTGs are required—the pipeline is also necessary for full conversion.[94] Furthermore, if new CTGs were required, it would not be possible to install those units by January 1, 2025,[95] thus leaving SPS short on resource capacity within a year's time in 2026.

2. Mr. Norwood's proposal puts SPS in a reliability risk position.

In fact, Mr. Norwood recognized that if SPS did not have replacement capacity at Harrington in 2025, SPS would need to either delay retirement of existing, aging gas units or purchase short-term capacity to meet its planning reserve margin and serve customer load.[96] Both of those options are costly and challenging. As an initial matter, Mr. Lytal's rebuttal testimony demonstrates that SPS does not have enough existing gas capacity to compensate for the full loss of Harrington, and that it would cost up to $35 million to extend the life of only 515 MW of capacity through 2030.[97] For short-term capacity, SPS has no guarantee its required capacity will be available. The cost of purchasing the short-term capacity SPS would need to meet its required planning reserve margin would be approximately $20 million *per year*.[98] As Mr. Lytal's rebuttal testimony explains, there are also significant costs associated with "mothballing" a single unit that would be incurred under Mr. Norwood's suggestions.[99] In other words, the cost of delay caused by pursuing new units in Mr. Norwood's proposal could exceed the cost of conversion.

[94] SPS Ex. 8 at 42:7-10.

[95] Tr. 172:9-15 (Elsey Redirect) (Apr. 26, 2022).

[96] AXM Ex. 1 at 11:8-11.

[97] SPS Ex. 13 at 8:23-9:2; SPS Ex. 13 at 8:21-9:2.

[98] SPS Ex. 8 at 44:19-45:1.

[99] SPS Ex. 13 at 10:5-18.

Operationally, the capital investment in CTGs would also outweigh the purported benefits of new gas units that Mr. Norwood touts.[100] Indeed, the evidence shows the efficiency of the current or converted Harrington units is comparable to CTGs, even if CTGs have faster start times and ramp rates.[101] More importantly, the Southwest Power Pool is a day-ahead market, so unless there is an unexpected outage, SPS will have at least 24 hours-notice of the need to use Harrington.[102] Regarding the ramp rate, Harrington can currently "ramp" up to 360 MW per hour under current operating parameters using coal and can be at full operation in less than three hours.[103] As discussed above, the ramp rate is expected to improve after conversion to natural gas operations such that it will take less than two hours for the units to reach full capacity.[104]

Further, AXM's recommended conditions if full conversion is approved are either already complete or unnecessary. First, Mr. Norwood suggests that SPS be required to obtain approval of the project from the NMPRC.[105] The NMPRC fully approved SPS's request on April 27, 2022.[106] Second, the "soft cap" of $70 million in costs for the project is not necessary because the full prudence of all costs related to the conversion of the units will be reviewed by the Commission in a future rate proceeding.[107] Third, SPS should not be directed to issue an RFP within 45 days of the final order in this case or be required to present those proposals in a future case because an

[100] AXM Ex. 1 at 5:24-29, 11:16-12:2.

[101] SPS Ex. 8 at 37:13-16.

[102] SPS Ex. 6 at 22:6-9.

[103] *Id.* at 22:13-15.

[104] *Id.* at 22:16-20.

[105] AXM Ex. 1 at 20:2-3.

[106] *In the Matter of Southwestern Public Service Company's Application 1) to Amend its Certificates of Public Convenience and Necessity to Convert Harrington Generation Station from Coal to Natural Gas, 2) For Authorization to Accrue Allowance for Funds Used in Construction, and 3) For Other Associated Relief*, Case No. 21-00200-UT, Final Order Adopting Recommended Decision (Apr. 27, 2022).

[107] AXM Ex. 1 at 19:23-26; SPS Ex. 6 at 23:12-14.

RFP results in binding bids that lead to the utility contracting with the bidder for the new generating resource.[108] SPS will not need a new resource if the Commission approves the conversion, and RFP bids are not necessary for SPS to support cost recovery of the conversion project.

Finally, new CTGs could also take several years to bring online, which would likely leave SPS in the position of not meeting its planning reserve margin requirements without access to generation or capacity between the time the Harrington units are retired and new CTGs are available.[109] It is not necessary to put SPS in that tenuous position when the converted Harrington units are cost-effective, feasible and can easily meet SPS's operational and reliability needs. Given the record evidence detailed above, AXM is hard-pressed to show why it would be reasonable to require new CTGs to be installed at a cost of over $500 million—at least six times more expensive than the cost of a new pipeline for the converted Harrington units, which pipeline would of course also be needed for new CTGs.

C. Sierra Club's Position to Retire One Unit is Not as Cost-Effective as Full Conversion and Would Create Reliability Risks.

The Sierra Club originally supported converting two and retiring one Harrington unit based on the modeling performed by its own expert, Ms. Devi Glick.[110] SPS thoroughly reviewed Ms. Glick's modeling and identified critical errors that caused Sierra Club's cost calculations to be understated and undermined the credibility of her analysis and Sierra Club's positions.[111] Mr. Elsey identified the most serious errors in Ms. Glick's modeling: failure to include necessary financing costs for battery energy storage; calculating recovery of the costs of 15-year batteries

[108] AXM Ex. 1 at 17:26-18:2; SPS Ex. 11 at 18:5-9.

[109] SPS Ex. 8 at 38:1-3, SPS Ex. 6 at 12:10-17.

[110] Sierra Club Ex. 1 at 9:10-12.

[111] SPS Ex. 8 at 53:9-19.

over a 30-year period; and severely underestimating costs of new solar and wind resources.[112] Upon taking the witness stand, Ms. Glick corrected one part of her testimony and immediately withdrew the nearly ten pages that addressed her modeling analysis.[113] She explained that she withdrew the modeling analysis because, "Company witness Elsey identified errors in the battery storage costs, so I am removing this whole section."[114]

Despite withdrawing its own analysis, Sierra Club continues to support retirement of Harrington Unit 1 and attempts to rely on SPS's modeling results for support.[115] The evidence demonstrates, however, that full conversion of all three units is the best option among the scenarios SPS modeled for cost and capacity reasons. Before addressing that evidence in detail, it must be noted that the scenario SPS modeled for retiring one unit includes the installation of new gas generation units.[116] Ms. Glick acknowledged this fact during the hearing.[117] Installing new gas units, however, is contrary to Sierra Club's renewable energy priorities, which is reflected in Ms. Glick's decision to intentionally prevent her own modeling from including any new gas resources before the year 2030 in favor of renewable energy sources.[118] In short, the Sierra Club's new position does not even align with the Sierra Club's renewable energy goals.

In terms of cost, the evidence is clear that the incremental cost to convert the third unit is very low, and conversion of all three units is more cost-effective in the short- and long-term than converting only two units. Regarding the cost to convert two compared to all three units, no party

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[112] *Id.* at 53:16-19.

[113] Tr. at 78:12-16 (Glick Direct) (Apr. 26, 2022).

[114] *Id.*

[115] Tr. at 19:6-12 (Sierra Club Opening Statement). (Apr. 26, 2021).

[116] SPS Ex. 7 at 26:18-19.

[117] Tr. at 116:19-21 (Glick Cross) (Apr. 26, 2022).

[118] Sierra Club Ex. 1 at 50:13-16; Tr. at 116:14-18 (Glick Cross) (Apr. 26, 2022).

disputes that the same size pipeline is needed to serve two or three units with natural gas.[119] And, no party disputes that are significant costs associated with "mothballing" a single unit would be incurred under the Sierra Club proposal.[120] Likewise, no party challenges the evidence showing the incremental cost to convert the third unit is only $2.6 million.[121] The investment of that incremental amount allows SPS to maintain the 340 MW of capacity at Unit 1.[122] This means the cost of preserving 340 MW of firm and dispatchable capacity is only $7.65/kW.[123] To put the cost-effectiveness of that $2.6 million investment in context, two new combustion turbines that provide approximately the same amount of firm and dispatchable capacity (400 MW) would be expected to cost at least $200 million or $500/kW.[124]

SPS's modelling also demonstrates the cost-effectiveness of converting all three units. Using EnCompass, SPS produced a detailed economic analysis of six different replacement scenarios across two load forecasts (planning and financial)[125] using a variety of sensitivities and inputs and over short-term (2022-2024) and long-term (2022-2041) periods.[126] The modeling results showed that between 2022-2024, the cost to covert only two units rather than three would cost $39 million (NPV) *more* than converting all the units by the end of 2024.[127] That purely

[119] SPS Ex. 12 at 11:13-13.

[120] SPS Ex. 13 at 10:5-18.

[121] SPS Ex. 8 at 9:7-8.

[122] *Id.* at 9:8-9.

[123] *Id.* at 10:12-13.

[124] *Id.* at 10:13-17.

[125] The financial load forecast is primarily used for financial planning, while the planning load forecast is predominantly used for resource planning evaluations. SPS Ex. 7 at 31:5-9.

[126] SPS Ex. 7 at 31:10-37:10.

[127] *Id.* at 32:1-2 (Table BRE-2).

economic analysis also shows there *could* be slight savings of $5 million in a "retire one" scenario versus full conversion over the long-term period.[128]

To this end, in reviewing SPS's EnCompass results, the IE, D. Dean Koujak, observed that the $5 million cost differential (inclusive of capital investment and on-going operations and maintenance costs) between the two scenarios over the 20-year period amounts to approximately $250,000 per year.[129] This slight difference was within the margin of error for modeling purposes, and the IE appropriately advised that given the proximity of the results, the decision to convert two or three Harrington units must consider qualitative factors.[130] Those qualitative issues include real-world reliability issues that are not accurately captured in economic modeling, including voltage and transmission support benefits, and the long-term economic value of maintaining SPS's interconnection rights of up to 1,050 MW at Harrington.[131] Mr. Koujak explained he could reasonably foresee real-world economic value in converting all three units that could easily eclipse the very small $5 million gap between converting all three units versus only two.[132] The combination of qualitative benefits and the low cost of capacity that can be obtained by converting the third unit at Harrington shows full conversion is the best choice despite Sierra Club's recommendation to retire one unit.

To support the "retire one unit" scenario, Sierra Club also claims that SPS does not need the 340 MW of capacity from Unit 1.[133] In making that claim, Ms. Glick relies on erroneous

[128] *Id.* at 32:1-2 (Table BRE-2), 35:7-8 (Table BRE-3).

[129] SPS Ex. 11 at 5:11-15. Tr. at 54:11-20 (Koujak Cross) (Apr. 26, 2021).

[130] SPS Ex. 10 at Att. DDK-1 at 15; Tr. at 148:7-23 (Koujak Cross) (Apr. 26, 2022).

[131] SPS Ex. 11 at 5:20-23.

[132] *Id.* at 6:5-8.

[133] Sierra Club Ex. 1 at 30:18-41:2.

capacity data. Mr. Elsey pointed out in his rebuttal testimony that Ms. Glick shows SPS's capacity positions in New Mexico rather than Texas.[134] Yet, SPS has fewer Commission-approved generating resources in Texas than it does in New Mexico, which means its capacity needs are higher in Texas.[135] Stated differently, SPS needs the capacity of all three Harrington units more urgently in Texas than it does in New Mexico. During the hearing, Ms. Glick confirmed the capacity data in her testimony showing a need for capacity starting in 2027 was not correct.[136] Once corrected, SPS would have a capacity need as soon as 2025 or 2026, depending on load growth, to meet its planning reserve margin requirements and preserve system reliability:[137]

Table 1

Capacity Position if Unit 1 is Retired	2025	2026	2027	2028	2029	2030
Planning Forecast	(192)	(476)	(604)	(904)	(1,098)	(1,170)
Financial Forecast	180	(60)	(125)	(379)	(533)	(564)

In short, while Ms. Glick advocates for the retirement of one unit by the end of 2024, the evidence demonstrates an immediate capacity need in 2025 under the Planning Forecast. Retiring Unit 1 puts SPS in a position of not having the capacity it will need. Nevertheless, even after acknowledging the capacity data errors in her testimony, Ms. Glick argued that the one-year period of 2025 is valuable in giving SPS additional time to procure new resources by 2026.[138] In taking this short-sighted and needlessly risky approach, Sierra Club ignores the facts that:

[134] SPS Ex. 8 at 12:3-6.

[135] *Id.* at 12:6-7.

[136] Tr. at 108:15-20 (Glick Cross) (Apr. 26, 2022).

[137] SPS Ex. 8 at 11:11-14, 12:7-9.

[138] Tr. at 113:4-6 (Glick Cross) (Apr. 26, 2022).

- The capacity shortfalls in 2025 and 2026 are significant and would be challenging to replace.[139]

- Southwest Power Pool's interconnection process has a backlog of approximately five years for new generation, and it would interfere with SPS's ability to obtain new generation by the time it is needed.[140]

- Interconnection costs are significant for new resources that do not have interconnection rights, which makes procuring new resources even more costly. SPS appropriately modeled three sensitivities, all of which are lower than the actual $934/kW for interconnection costs that Southwest Power Pool is currently assigning to new resources.[141] Putting SPS in the position of needing capacity immediately after any unit is retired in 2024 means it could be forced to accept the cost of new resources, including those with high interconnection costs, due to a lack of options.

- To achieve commercial operation of new capacity by 2025 or 2026, SPS would likely have to restrict replacement generation to generators with existing interconnection agreements. That could negatively impact SPS's customers because those projects could require a substantial cost premium that is not captured in SPS's economic analysis.[142]

- The resource positions in Table 1 above reflect SPS's accredited capacity needs, which refers to the Southwest Power Pool's method for calculating actual megawatts of capacity qualified to measure SPS's compliance with minimum reserve capacity requirements. In 2023, the Southwest Power Pool will implement a new method for accrediting capacity for renewable energy and battery energy storage that will negatively impact those resources because they will not count as much towards the capacity requirements.[143] This means SPS's capacity needs will actually be greater than the modeled amounts.

- External factors such as COVID-19, high inflation, and import tariffs have exacerbated supply chain problems, and there have been instances where developers have withdrawn or delayed proposed projects,[144] which contributes to the risks SPS would face if it had to obtain replacement generation capacity if Unit 1 is retired.

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[139] SPS Ex. 8 at 11:15-16.

[140] *Id.* at 14:14-15:3.

[141] *Id.* at 27:1-14. SPS modeled interconnection costs of $200/kW, $400/kW, and $600/kW. *Id.* at 28:3-12.

[142] *Id.* at 15:14-21.

[143] SPS Ex. 8 at 57:14-58:2.

[144] *Id.* at 15:4-10.

In short, Sierra Club's position on retiring one Harrington unit does not consider the real-world conditions and risks that so many of SPS's witnesses emphasized.[145] These risks are avoided if all three Harrington units are converted to natural gas. Sierra Club's positions, especially because of the modeling errors that caused Ms. Glick to withdraw her analysis and the other mistakes in her pre-filed testimony, should be rejected.

D. OPUC's overall recommendation on conversion is supported by the evidence, its proposed conditions are not.

OPUC agrees that SPS's proposal is in the public interest.[146] However, OPUC witness Karl Nalepa would impose two unnecessary conditions on the conversion of Harrington: (1) that any retirement of the Harrington assets be treated consistent with the Commission's Orders in Docket Nos. 51415 and 46449 and (2) that the proposed natural gas pipeline to Harrington be depreciated over 70 years.[147] Neither recommendation is supported by the evidence and neither of Mr. Nalepa's requested determinations should be made by the Commission in this proceeding.

With respect to Mr. Nalepa's suggestion the Commission preemptively make a retirement and cost-recovery decision in this proceeding, that case and the facts necessary to make such a determination are clearly not before the Commission at this time. This is a CCN case, not a rate case or a retirement case. More substantively, however, Docket Nos. 51415 and 46449 involved facts materially different than those present at Harrington. As Mr. Grant's rebuttal testimony notes, the Dolet Hills Power Station case involved the *early* retirement of a plant.[148] Southwestern Electric Power Company was seeking to shorten the depreciation rates/lives on an asset to end

[145] *Id.* at 9:22-10:7, 32:1-35:7; SPS Ex. 11 at 10:1-12:10.

[146] OPUC Ex. 1 at 7:20-24.

[147] *Id.* at 24:6-12.

[148] SPS Ex. 6 at 18:12:17.

earlier than had been the basis for the original investment and prudence determination.[149] The same was true in the Welsh Unit 2 case, Docket No. 46449.[150] Importantly, the Dolet Hills Power Station and Welsh Unit 2 depreciable lives had never been extended in the manner that Harrington's have.[151] The Harrington units were originally expected to operate for 35 years, have now been in operation for over 45 years, and may reach 60 years of operation, if SPS's request for conversion is approved.[152] There is simply no reason to impose a punitive condition on Harrington's retirement when it is undisputed that Harrington's depreciable lives have been extended for the benefit of customers in prior rate cases and that the Commission has previously found investment in the facility to be prudent.[153]

Similarly, Mr. Nalepa's suggestion the Commission set a depreciation rate on the Harrington pipeline is not supported by the evidence and is not appropriate in a CCN amendment proceeding.[154] At hearing, Mr. Nalepa agreed that no depreciation study has been conducted on the proposed pipeline, that such a study would be the type of evidence relied upon by the Commission to set depreciation rates for such an asset, and that SPS's depreciation rates would be addressed in a future rate case.[155] The Commission will set the appropriate depreciation rate for the Harrington pipeline in the first base rate case in which SPS seeks to include those assets in

[149] *Id.*

[150] *See* OPUC Ex. 1 at 20:3-14 (noting that the Welsh Units still had 24 years left on their remaining lives).

[151] SPS Ex. 6 at 18:12-14.

[152] *Id.* at 18:18-19:4.

[153] *Id.* at 18:1-8.

[154] OPUC Ex. 1 at 24:6-12.

[155] Tr. 95:10-96:18 (Nalepa Cross) (Apr. 26, 2022).

base rates.[156] It has neither the evidence necessary to do so or the need to do so, in this case as Mr. Nalepa concedes.

E. SPS agrees with Commission Staff's recommended route and has no objection, subject to certain clarifications, to Staff's suggested reporting requirements.

As noted in the testimony of Staff's witness, Mr. John Poole, Staff recommends Route 2 be selected as the route for the Harrington pipeline. SPS has no objection to Staff's recommendation and no other party has offered evidence on routing. With respect to Staff's recommendations that certain TPWD mitigation measures be followed by SPS, SPS's rebuttal testimony confirms that SPS has worked with TPWD on many past projects and will follow TPWD's preferences and practices on an applicable basis.[157] For instance, if no migratory birds are impacted by the project, then no management practice related to migratory birds will be necessary.[158] The same is true for erosion controls—they will be employed where needed.[159] SPS also requests that it be permitted to collaborate with the TPWD and that any reporting requirements be a product of that collaboration as opposed to imposing the TPWD recommendations as submitted without the normal collaboration and coordination with the agency that the Commission has supported in the past.[160]

F. Undisputed Issues

1. Application (PO Issues 1 through 5)

The Application is summarized in Section II of this brief. No party, including affected landowners, challenged any of the proposed routes or challenged the adequacy of the number of

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[156] SPS Ex. 6 at 9:10-14.

[157] SPS Ex. 16 at 12:1-2; Rebuttal Testimony of Anastacia Santos, SPS Ex. 18 at 6:20-22.

[158] SPS Ex. 16 at 12:4-6.

[159] *Id.* at 12:6-9.

[160] *Id.* at 12:13-15.

the routes presented to the Commission. Commission Staff concluded that the proposed routes are adequate in number and geographic diversity.[161]

No party contested the sufficiency of SPS's application, and Commission Staff recommended that the Application be found sufficient for further processing.[162] In Order No. 4, issued on October 6, 2021, the Commission found the Application administratively complete.

2. Notice (PO Issues 6 and 7)

SPS's method and proof of notice are detailed in Section II of this brief. No party contests that the notice provided by SPS was sufficient, and the Commission has deemed the notice provided by SPS sufficient.

3. Public Input (PO Issue 8)

As detailed in the Environmental Assessment ("EA") attached to the direct testimony of Company witness Anastacia Santos, SPS held a virtual public meeting via ZOOM with a formal presentation in a speaker-audience format and a question and answer session with a panel for all landowners who live within 500 feet of a proposed pipeline centerline.[163] At the end of the public meeting, participants were encouraged to review the material on the website and submit comments or questions through a questionnaire via email or through mail. SPS received no responses from affected landowners or the public.[164]

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[161] Direct Testimony of John Poole, Staff Ex. 1 at 17:1-2.

[162] Commission Staff's Recommendation on the Application, Notice, and Request for Referral to the State Office of Administrative Hearings at 1 (Oct. 5, 2021).

[163] SPS Ex. 17, Attachment AS-2 at 21-22.

[164] *Id.*

4. Natural Gas Fuel Source (PO Issues 14, 15, 16, 18)

Regarding the fuel source for the converted Harrington, SPS reasonably selected interconnection points to existing pipelines based on the available pipelines in the area of Harrington and has had preliminary discussions with the pipelines regarding supply and is confident that it will be able to secure gas for Harrington in the same manner that it has for its other natural gas plants.[165] By connecting to two natural gas pipelines, SPS will be able to benefit from a diversity of natural gas supplies.[166] Moreover, no party has suggested an alternative pipeline source with the capacity and location requirements necessary to serve Harrington. Additionally, SPS reasonably relied on the standard methodology from industry-leading consulting firms to develop fuel price forecasts used in the EnCompass modeling.[167] And short-term increases in natural gas costs are not likely to materially change fuel costs in the 2024-2025 timeframe and beyond when SPS will be purchasing natural gas for converted Harrington units.[168] SPS has monitored changes in commodity pricing and those changes have not materially affected SPS's request to convert the Harrington Units.[169] Importantly, any increase in commodity pricing that may affect the cost of converting Harrington will have similar impacts on the cost of various replacement resources.[170] Finally, SPS does not currently have the option to enter into a firm fuel supply or firm fuel transportation contract as an alternative to constructing a new pipeline because

[165] *Id.*, Attachment AS-2 at 19 (Figure 2-1); SPS Ex. 13 at 16:7-12.

[166] SPS's Response to Staff's Ninth Request for Information, Staff Ex. 5 at 9 (SPS Response to Staff 9-5).

[167] SPS Ex. 10, Attachment DDK-1 at 7-8.

[168] Staff Ex. 5 at 11 (SPS Response to Staff 9-6).

[169] *Id.*

[170] *Id.*

existing pipeline infrastructure is insufficient to serve the gas needs of a converted Harrington.[171] SPS's current request does not include dual-fuel or fuel-storage capabilities, which would require additional investment.[172] Overall, SPS's plan to construct a pipeline and use natural gas for the converted generation units at Harrington is reasonable, cost-effective, and secure.

5. Effect of Granting the CCN on SPS and Other Electric Utilities (PO Issue 17)

As noted in the Company's direct testimony of Mr. Elsey and Mr. Grant, if the conversion is not approved, SPS would fall below the Southwest Power Pool minimum reserve requirement of 12%.[173] Thus, if conversion is not approved, SPS would need to secure replacement resources for Harrington at a higher cost than conversion and will need to invest in voltage stabilization given the current voltage support provided by Harrington units, and it is likely that energy prices, congestion charges, and reliability must-run requirements would be negatively impacted.[174] No party has contested that the resource capacity provided by Harrington is necessary for SPS to meet its reserve margin requirements.

SPS does not anticipate, and no party has argued, that proposed conversion will have any impact on other utilities in Texas.[175] Put simply, after conversion, the same amount of firm and dispatchable generation is available at the same location.[176] Moreover, the proposed conversion will not impact the planning reserve margin requirements for other utilities in SPS because those

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[171] SPS Ex. 12 at 9:7-12. (The current pipeline serving Harrington has the ability to receive 37,000 dekatherms per day. After conversion, Harrington will require a maximum of approximately 265,000 dekatherms per day.)

[172] Staff Ex. 5 at 9 (SPS Response to Staff 9-5).

[173] SPS Ex. 7 at 10:12-11:3, 18:4-18; SPS Ex. 5 at 14:1-11.

[174] SPS's Response to Commission Staff's Eighth Request for Information, Staff Ex. 4 at 5 (Response to 8-1).

[175] SPS Ex. 12 at 21:11-14.

[176] Staff Ex. 4 at 5 (SPS Response to 8-1).

requirements are managed on a utility-by-utility basis.[177] No party has argued against the proposed conversion on the grounds that proposed conversion will adversely impact SPS or other electric utilities.

6. Cost Effects on Customers (PO Issue 18)

While this proceeding is not a rate case, and SPS does not have the necessary inputs and rate design details to calculate exact bill impacts, the cost of new CTGs would increase customer bills far more than conversion of Harrington. After reviewing Mr. Norwood's proposal, SPS analyzed the cost of new CTGs immediately replacing the retiring Harrington Units at the end of 2024.[178] Excluding the cost a new gas pipeline to fuel the CTGs, and excluding transmission network upgrade costs, among other favorable assumptions to CTGs, the cost of new CTGs would be $160 million more expensive in 2022-2024 and $119 million more expensive in 2022-2041 than conversion of Harrington units to natural gas.[179] This increase in cost would increase customer bills. Similarly, even if SPS were to secure replacement resources other than new CTGs, SPS calculated the NPV increase in costs to customers to replace the retired capacity to be $168 million over the 2022-2024 time period (approximately $98.8 million to Texas retail at the jurisdictional allocation factors SPS provided in Docket No. 51802).[180] Again, this would negatively impact customer bills as compared to conversion of the Harrington units.

7. Effect on the Community and the Environment (PO Issue 19)

The effect of the proposed conversion of Harrington on community values, recreational and park areas, historical and aesthetic values, and environmental integrity were addressed in the

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[177] *Id.*

[178] SPS Ex. 8 at 41:4-19.

[179] *Id.* at 41:21-42:2.

[180] SPS Ex. 7 at 32:2 (Table BRE-2).

direct testimony of Ms. Santos and the EA conducted by POWER Engineers, Inc., ("POWER") which is attachment AS-2 to the direct testimony.[181] Based on a review of these criteria, POWER concluded that the proposed project will have "insignificant impact on the human environment and will not unduly impair any important environmental integrity."[182] POWER further concluded that the proposed conversion of Harrington will positively impact environmental integrity by significantly lowering greenhouse gas emissions.[183] Company witness Jeff West further testified that "SO_2 emissions will be reduced in excess of 90% and compliance with NAAQS requirements will be demonstrated" and that other pollutants such as carbon monoxide and carbon dioxide will be significantly reduced.[184] No party contested the proposed conversion of Harrington on the grounds that conversion would cause any negative impacts to community values, recreational and park areas, historical and aesthetic values, or environmental integrity. Commission Staff concluded that the proposed conversion does not present a significant impact to environmental integrity.[185] Similarly, Commission Staff analyzed impacts on community values,[186] recreational and park areas,[187] aesthetic values,[188] and concluded that there was no negative impact to these criteria that warranted opposition to the proposed conversion.

[181] SPS Ex. 17, Attachment AS-2.

[182] *Id.* at 12:6-8.

[183] *Id.* at 22:11-23:3.

[184] SPS Ex. 15 at 16:2-16.

[185] Staff Ex. 1 at 24:4-26:15.

[186] *Id.* at 20:4-21:6.

[187] *Id.* at 21:8-22:13.

[188] *Id.* at 22:14-23:4.

8. Route (PO Issues 21 and 22, 23 through 29)

The proposed routes for the natural gas pipeline necessary to serve Harrington were described and set forth in the direct testimony of Ms. Santos and the EA conducted by POWER, which is attachment AS-2 to the direct testimony.[189] The route development methodology was consistent with standard routing practices for pipeline projects and took into consideration existing land use, environmental constraints, impact on environmental resources, socioeconomic impacts and other assessment factors.[190] SPS proposed the four pipeline routes shown in Figure 2-1 in the EA.[191] None of the potential pipeline routes have habitable structures within 500 feet of the centerline.[192] No party, including affected landowners, challenged any of the proposed routes or challenged the adequacy of the number of the routes presented to the Commission.

Commission Staff filed the Direct Testimony of John Poole addressing the proposed routes for the natural gas pipeline.[193] Commission Staff concluded that the proposed routes are adequate in number and geographic diversity.[194] Commission Staff recommended "that Route 2 is the best route when weighing, as a whole, the factors set forth in PURA § 37.056(c) and 16 TAC § 25.101(b)(3)(B)."[195] In reaching its conclusions, Commission Staff noted that Route 2 is the shortest, most direct route among the four alternatives between existing source pipelines and

[189] SPS Ex. 17 and Attachment AS-2.

[190] *Id.*, Attachment AS-2 at 14-16.

[191] *Id.*, Attachment AS-2 at 19 (Figure 2-1).

[192] *Id.*, Attachment AS-2 at 73.

[193] Staff Ex. 1 at 19:19-20:2.

[194] *Id.* at 17:1-2.

[195] *Id.* at 17:3-4.

Harrington.[196] Commission Staff further concluded that none of the routes were unacceptable from an environmental and land use perspective.[197]

SPS does not oppose Staff's recommendation that SPS construct and operate the proposed pipeline along Route 2, if the project is approved. SPS also agrees with Staff that none of the routes are unacceptable from an environmental and land use perspective and will construct and build the pipeline along any of the four proposed alternatives should the Commission approve the project and select a proposed route other than Route 2.

9. Texas Parks and Wildlife Department (PO Issue 33)

On October 27, 2021, TPWD provided comments and recommendations concerning the proposed conversion of Harrington.[198] TPWD recommended that Route 2 be selected because it caused the least adverse impacts to natural resources.[199] TPWD did not recommend any modifications to the proposed generating facilities or pipeline facilities.[200] TPWD recommended several Best Management Practices ("BMP") to be utilized when specifically applicable to the project.[201]

Commission Staff recommended mitigation measures on pages 18 through 20 and 23 through 28 of the direct testimony of John Poole.[202] Commission Staff concluded that these mitigation measures are sufficient to address TPWD's mitigation recommendations. Commission Staff further recommended that SPS be "ordered to collaborate with TPWD's recommendations

[196] *Id.* at 27; SPS Ex. 17, Attachment AS-2 at 19 (Figure 2-1), Table 4-1.

[197] Staff Ex. 1 at 28:2-6.

[198] *Id.*, Attachment JP-3.

[199] *Id.*, Attachment JP-3 at 2.

[200] *Id.*

[201] *Id.*

[202] Staff Ex. 1 at 17:5-11.

to the extent reasonably possible" and to the extent they are not already reflected in Staff's other recommendations.[203] SPS does not oppose the entry of a final order that reflects the specific mitigation measures proposed by Commission Staff in the testimony of Mr. Poole.[204] Moreover, SPS does not oppose collaborating with TPWD's recommendations to the extent reasonably possible regarding other TPWD recommendations.[205] However, as noted in the Company's rebuttal testimony of Mr. West, not all of the BMPs will be applicable to all parts of the project. Thus, because Staff witness Poole's specific mitigation measures are sufficient to address environmental concerns, TPWD's recommendations need not and should not be incorporated verbatim in the final order. SPS is committed to collaborating with the TPWD in keeping with normal practices as it does with all CCN-related projects.

10. Other Regulatory Approvals (PO Issue 34 through 38)

SPS must seek the regulatory approvals listed in the EA.[206] On August 6, 2021 SPS filed a CCN amendment application with the NMPRC regarding the proposed conversion because New Mexico customers will be served by the converted Harrington resource. On April 27th, 2021, the NMPRC approved the application with minor reporting conditions.[207] SPS must file copies of all construction reports, must file actual costs of the project including AFUDC amounts within one month of becoming available, must file a notice of the commercial operation date, and must file a notice when fuel costs shall first be included in SPS's Fuel and Purchased Power Cost Adjustment

[203] *Id.* at 27:13-19.

[204] SPS Ex. 18 at 6:4-9.

[205] SPS Ex. 16 at 11:21-12:15.

[206] SPS Ex. 17, Attachment AS-2 at 13.

[207] Case No. 21-00200-UT, Final Order Adopting Recommended Decision at 5.

Clause.[208] SPS has made no commitments to other regulatory authorities regarding the proposed project.

Upon approval of the CCN application by the Commission, SPS will seek necessary permits from the Railroad Commission of Texas including an amendment to its T-4 permit to allow for operation of the proposed pipeline.[209] SPS will also file a Form PS-48 at least 60 days before beginning construction on the pipeline.

No party contests that SPS has or plans to seek approval from all necessary regulatory authorities.

11. Permits (PO Issue 39)

SPS must seek the environmental and construction-related permits, licenses, plans, and permissions listed in the EA.[210] No party contests that SPS has or plans to seek approval from all permits, licenses, plans, and permissions.

No permit or easement is required from a state or federal agency as the proposed pipeline routes do not cross any land owned or controlled by a federal or state agency.[211]

12. Limitation of Authority (PO Issue 40)

No party, including SPS, contested that a final order authorizing conversion of Harrington should be limited to a period of seven years from the date the order is signed.

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[208] *Id.*

[209] SPS Ex. 17, Attachment AS-2 at 13.

[210] *Id.*

[211] *Id.*, Attachment AS-2 at 19 (Figure 2-1); Exhibit B to the Proof of Notice – Directly Affected Landowners, SPS Ex. 3.

IV. CONCLUSION AND REQUESTED RELIEF

The evidence presented at hearing fully supports SPS's request to amend its CCN so that SPS can convert all three units at Harrington from coal generation to natural gas generation. SPS respectfully requests that the Administrative Law Judges issue a Proposal for Decision that recommends approval of that amendment and authorization for SPS to construct, own, and operate a new pipeline to supply natural gas to Harrington.

Respectfully Submitted,

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ATTORNEYS FOR SOUTHWESTERN PUBLIC SERVICE COMPANY

CERTIFICATE OF SERVICE

I certify that, unless otherwise ordered by the presiding officer, notice of the filing of this document was provided to all parties of record via electronic mail on May 11, 2022, in accordance with the Order Suspending Rules, issued in Project No. 50664.

Mark A. Santos