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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**

SIERRA CLUB'S INITIAL POST-HEARING BRIEF

May 11, 2022

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INTRODUCTION

Southwestern Public Service Company ("SPS") seeks a certificate of convenience and necessity ("CCN") authorizing the Company to pursue a project that would ultimately cost Texas customers up to $52 million (of the project's $65-75 million total cost, the rest to be paid by SPS's New Mexico customers).[1] SPS needs this approval to implement a decision to which the Company has, for the most part, already committed itself and its customers. In September 2020, SPS privately negotiated a binding agreement (hereinafter the "Texas Agreement") with the State of Texas, requiring the Company to cease burning coal at Harrington Station to avoid the possibility that the U.S. Environmental Protection Agency ("EPA") might someday determine that Harrington was violating air quality standards for sulfur dioxide ("SO_2").[2] Although EPA has never issued (or proposed) such a determination, and SPS therefore had no existing regulatory obligation to reduce emissions, SPS and Texas preemptively agreed to cease burning coal at Harrington by January 1, 2025.

To comply with its deal with Texas, SPS seeks approval from this Commission to bill its Texas customers $52 million to convert all three of the Harrington electric generating units to burn gas, and to recover those costs, the remaining plant balance, and a return on investment at each of those units through their current depreciable life.[3] To support its Application, SPS submitted a 2021 economic analysis, filed with the Texas Public Utility Commission ("PUC")

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[1] *See, e.g.*, SPS Ex. 1, Application at 5.

[2] There was no substantive, formal public stakeholder process preceding SPS's September 18, 2020 execution of the privately-negotiated Texas agreement. Tr. 38: 17-24.

[3] Texas customers will be responsible for approximately 70 percent of those costs, which SPS expects to be approximately $45-52 million. SPS Ex. 12, Direct Testimony of Lytal at 18. Under the current depreciation schedule for the Harrington units, the Company's investments and a return on investment will continue to be collected for Units 1, 2, and 3, through 2036, 2038, and 2040, respectively. Tr. at 68:15-19; SPS Ex. 5, Direct Testimony of William A. Grant at 15.

eleven months after the Texas Agreement, evaluating six purported alternatives for addressing Harrington's SO_2 emissions: (1) installing "scrubbers" to reduce SO_2; (2) installing a less-effective control technology, dry sorbent injection; (3) retiring all three units by January 1, 2025; (4) retiring two units and converting one to gas; (5) retiring one unit and converting two to gas; and (6) SPS's preferred alternative, converting all three units to burn gas.

It is now clear, however, that four of those six "alternatives" were never really options at all. As a result of the Texas Agreement, SPS has already committed to cease burning coal at Harrington by January 1, 2025, so retrofitting the plant to continue burning coal is no longer legally possible. Although SPS's independently reviewed Request for Information makes clear that renewable energy resources are available and cost-effective, SPS never did issue a more concrete Request for Proposal seeking "firm" replacement capacity.[4] And by submitting its case for a gas-conversion CCN almost a year after finalizing its Texas commitment to cease burning coal at Harrington, SPS ensured that even if the Texas PUC had preferred acquiring the carbon-free replacement resources necessary to retire all three (or even two) of the three Harrington units, those options are, as a practical matter, impossible.[5] Thus, as a result of SPS's private deal with Texas, this Commission has only two practical options: grant SPS's request to convert all three Harrington units, or allow the Company to convert two units to gas, while retiring or mothballing the third—most likely, Harrington Unit 1.[6]

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[4] Tr. 156-59.

[5] The options for retrofitting Harrington to add pollution controls to reduce SO_2 are also illusory because SPS has already committed, in its deal, to stop burning coal.

[6] Sierra Club Ex. 1 at 24-25, Direct Testimony of Devi Glick (Based on the Company's rebuttal testimony in the New Mexico Docket 21-00200-UT, it became clear that retiring two or three units is practically infeasible, given the length of time to procure alternative generation resources and interconnection rights,); *see also* SPS Ex. 8, Rebuttal Testimony of Ben R. Elsey at 23, 32 ("extremely challenging" and "infeasible at worst" to retire and replace two or three units); SPS Ex. 15, Direct Testimony of Jeffrey L. West at Attach. JLW-1 at 4 of 7 (Agreed Order requiring SPS to cease burning coal at Harrington). If SPS

The Commission should authorize SPS to convert *only two* Harrington units, because the Company's own economic analysis and an Independent Evaluator's review both make clear that is the least-cost option for complying with the Texas Agreement while also meeting reliability and capacity needs. In fact, according to the modeling that the Company submitted to support the Application, Harrington Unit 1 will *never* run if it is converted, and the other two units will operate only minimally.[7] Thus, it is not surprising that, under *every one* of the 36 alternatives reviewed, the Independent Evaluator concluded that retiring at least one or all of the Harrington units instead of converting all three to burn gas was the "best" option, and would save customers millions of dollars.[8] Under the Company's base case, "median" Financial Load growth forecast, the retirement of Unit 1 saves customers $5 million over the planning period; but under a high gas price forecast, the retirement saves $24 million, using the Company's optimistic Planning Load Forecast.[9] The respective savings are even higher under SPS's Financial Load Forecast: $29 million under the base case and $28 million under a high gas scenario—and even reach as high as $55 million with a different assumption for network upgrade costs.[10] The average savings, of converting only two units instead of three, under all scenarios and sensitivities tested in SPS's modeling is $25 million.[11]

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were to retire just one of the Harrington units, it would be Unit 1, which is the oldest and least efficient of the three generation units.

[7] Sierra Club Ex. 1, Direct Testimony of Devi Glick at 14:16-17; 54; Tr. 120:20-24.

[8] Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 14.

[9] SPS's "financial" load forecast represents the "median expectation for future energy and peak demand." SPS Ex. 14, Direct Testimony of John M. Goodenough at 7. The planning forecast assumes "energy sales of 8,279 GWh (31%) higher and peak demand that is 9 880 MW (20%) higher than the financial forecast in 2041." *Id.* at 14. This reflects a compound annual energy sales growth of 0.7% through 2041, even though average load has declined by 2.7% over the last 10 years. *Id.* at 8.

[10] SPS Ex. 7, Direct Testimony of Ben R. Elsey at 32, 35, & Attach. BRE-1 at 1-4.

[11] SPS Ex. 10, Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 14 of 16.

This is due, in large part, to the fact that under SPS's current financial forecast—i.e., its "median expectation" for future energy demand—the Company does not currently need all of the generation capacity provided by Harrington. In fact, as SPS concedes, the Company could retire Harrington Unit 1 and still meet its median capacity needs until 2025 or even 2026.[12] The Independent Evaluator's report confirms that retiring one Harrington unit is not only the least-cost option, but that it is also the lowest-risk option, since the Company would retain optionality to convert the third unit within a matter of months, should SPS actually need the generating capacity at some point in the future.[13]

Moreover, SPS's analysis understates the relative costs of its preferred gas-conversion alternative by (1) substantially understating the sustaining capital and fixed operations and maintenance costs at the plant after it converts to gas; (2) failing to account for environmental compliance risks, including costs associated with impending carbon dioxide and regional haze regulations, as well as newly proposed safeguards for ozone pollution, each of which could impose tens of millions of dollars in compliance costs at the converted plant; and (3) failing to assess alternative, customer-friendly mechanisms for recovery of the undepreciated plant balance at Harrington after the units retire. Had the Company properly considered those factors, the relative benefits of converting only two units, and retiring one, become even clearer.

Although SPS's own economic analysis makes clear that retiring one Harrington unit would save customers money over the long term while still ensuring adequate capacity until 2025 or 2026, SPS argues against that approach on grounds it would result in a short-term rate impact due to the need to accelerate the collection of Unit 1's remaining book balance and return

[12] *See, e.g.*, SPS Ex. 8, Rebuttal Testimony of Ben R. Elsey at 11-12; *see also, e.g.*, Sierra Club Ex. 1, Direct Testimony of Devi Glick, Attach. DG-2 at 9 of 185.

[13] Tr. 33: 11-13.

on investment. But the Commission has broad authority to mitigate any rate increases that may result from the early retirement of Harrington Unit 1, including by extending the depreciation of the plant or limiting shareholders' collection of profits.

In sum, the Commission should reject SPS's proposal to convert all three Harrington units because the Company failed to meet its burden of demonstrating that the proposed conversion is necessary to provide reliable service, accommodation, convenience, or safety for the public, and that it will be the most economical, used and useful choice among the alternatives.[14] Instead, the Commission should exercise its broad authority to issue a limited CCN authorizing SPS to convert only two Harrington units.[15] By doing so, the Commission would protect customers from millions of dollars in potentially unnecessary capital and operational costs associated with converting a generation resource that is not reasonably certain to be used and useful.[16] A limited CCN would be consistent with the renewable energy goals set forth in PURA § 39.904. [17]

Finally, whether the Commission adopts Sierra Club's recommendation for only two units to be converted, or instead issues a CCN for all three, the Commission should place

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[14] Public Utility Regulatory Act ("PURA") § 37.056; *cf., e.g., Cities for Fair Util. Rates v. Pub. Util. Comm'n of Texas*, 924 S.W.2d 933, 935 (Tex. 1996) ("Restated, the rule [reflected in PURA § 2.203(a)] is that a utility's rates must be set so as to produce revenues equal to the sum of two amounts. One is the utility's 'reasonable and necessary operating expenses,' including taxes and depreciation. The other is 'a reasonable return on its invested capital used and useful in rendering service to the public.'").

[15] *See* PURA § 37.056 (West); *Pub. Util. Comm'n of Tex. v. Texland Elec. Co.,* 701 S.W.2d 261, 266 (Tex.App.-Austin 1985, writ ref'd n.r.e.) ("These factors are stated in the broadest possible terms and are intended as legislative standards to guide the Commission in its administration of the certification process").

[16] *See, e.g., Cities for Fair Utility Rates*, 924 S.W.2d at 935.

[17] PURA § 39.904 (Sets out legislative intent for renewable energy goals including that the" commission establish a target of 10,000 mw of installed renewable capacity by January 1, 2025", establish a renewable energy credits trading program, and take further steps to increase renewable energy).

conditions on any CCN in order to protect customers from unnecessary costs, should SPS's optimistic capital and operational cost forecasts prove incorrect.

LEGAL STANDARD

SPS has the burden of demonstrating that the proposed Harrington CCN will serve the public convenience and necessity, is just and reasonable, and is in the public interest.[18] Although the Commission has discretion in determining whether a proposal is in the public interest, the Commission has an obligation to protect the public interest and ensure that a utility's decision to convert a power plant, and ultimately charge captive ratepayers for that investment, is necessary and will result in just and reasonable rates.[19] To that end, PURA § 37.056(a) states that the Commission may approve an application for a CCN "only if" the CCN is necessary for the "service, accommodation, convenience, or safety of the public."[20] In considering whether to grant the CCN the Commission "shall" consider, among other factors, the adequacy of existing service, the need for additional service; community values, environmental impacts, the probable improvement of service or lowering of cost to consumers, any potential economic or reliability benefits associated with dual fuel capabilities, and the effect of granting the certificate on the state's goals of moving toward renewable energy.[21]

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[18] PURA § 37.056(a).

[19] PURA § 36.003(a); 16 T.A.C. § 25.1; *Sw. Elec. Power Co. v. Pub. Util. Comm'n*, 419 S.W.3d 414, 423 (Tex. App. Amarillo, 2011) (the "PUC bears the burden of protecting the public interest").

[20] PURA § 37.056(a).

[21] PURA § 37.056. The Commission must also consider the effect of granting the certificate on the recipient of the certificate and any electric utility serving the proximate area; the impact to recreational and park areas; and historical and aesthetic values.

These factors should be interpreted in the broadest possible terms and are intended as legislative standards to guide the Commission in its administration of the public interest.[22] Moreover, the Commission must exercise its discretion, based on individual circumstances, and evaluate each of the competing policies and interests involved in the case in light of factors under PURA § 37.056.[23] "For instance, "'environmental integrity' may in some circumstances have to prevail over a need for the additional service."[24] However, in all cases the Commission should further the *overall* public interest.[25] In sum, SPS must demonstrate, by substantial evidence, that the proposed conversion of all three Harrington units is necessary to serve customer need, and that the proposed conversion will result in just and reasonable rates.

In evaluating an application for a CCN, the Commission may approve the certificate as requested, deny the certificate, or grant the certificate for the construction of a "portion of the requested system, facility, or extension."[26] Moreover, the Commission has broad authority to take steps to protect customers by including conditions upon any CCN to mitigating increased customer costs or risk.[27]

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[22] *Hammack v. Pub. Util. Comm'n of Texas*, 131 S.W.3d 713, 723 (Tex. App. 2004) (citing *Pub. Util. Comm'n v. Texland Elec. Co.,* 701 S.W.2d 261, 266 (Tex.App.-Austin 1985, *writ ref'd n.r.e.*)).

[23] *See id.* ("The Commission may find it necessary to specify and employ more particular factors in order to effectuate the general factors expressed in section 37.056. . . . This is a matter that is within the Commission's discretion").

[24] *Id.* ("The Commission has wide discretion in determining what factors to consider when deciding whether something serves the public interest") (citing *Pub. Util. Comm'n v. Texland Elec. Co.,* 701 S.W.2d at 276); *Pub. Util. Comm'n of Tex. v. Tex. Tel. Ass'n*, 163 S.W.3d 204, 213 (Tex. App. 2005).

[25] *Hammack*, 131 S.W.3d at 723 ("In making these sometimes-delicate accommodations, the agency is required to exercise its "expertise" to further the *overall* public interest").

[26] PURA § 37.056; 16 T.A.C. § 25.101(b).

[27] *Sw. Elec. Power Co.*, 419 S.W.3d at 423.

ARGUMENT

I. SPS's own analysis and the Independent Evaluator's review both demonstrate that converting all three Harrington units is not the most economical option among the feasible alternatives. [Preliminary Order Issues 9, 13, 15, 18, 19]

In support of its Application, SPS submitted an economic modeling analysis (the "Harrington 2021 Analysis") evaluating six purportedly-available options for addressing Harrington's excessive sulfur dioxide emissions: (1) the installation of "scrubbers" to reduce SO_2 emissions; (2) the addition of a different control technology, dry sorbent injection to reduce SO_2; (3) the retirement of all three units by the end of 2024; (4) the retirement of two units by the end of 2024; (5) the retirement of one unit; and (6) SPS's preferred alternative, constructing a twenty-mile long, twenty-inch diameter gas pipeline and converting all three units to burn gas.[28] In reality, the only options available to the Commission are SPS's Scenario 2, conversion of all three units to burn gas, or Scenario 5, conversion of two units with one unit retiring. The two pollution control options are barred by the Texas agreement,[29] and we now understand that the alternative resources the Company modeled cannot be acquired in time to provide the capacity needed to retire all three (or even two) Harrington at the end of 2024.[30]

Of those two remaining options, SPS's own analysis makes clear that under *every* resource plan scenario, retiring at least one of the Harrington units is the least-cost, "best" option for customers over the long term, from 2022 through 2040.[31] That economic analysis used an

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[28] Rebuttal Testimony of Ben R. Elsey at 7. When SPS conducted the analysis, the installation of pollution controls and the continued use of coal at Harrington was no longer an option due to the agreement with Texas.

[29] Sierra Club agrees with SPS that continuing to burn coal at Harrington is uneconomical. When SPS filed the 2021 analysis, however, the Company should have explained that the Texas agreement explicitly precluded continued coal use, and therefore it was no longer an option.

[30] Rebuttal Testimony of Ben R. Elsey at 11.

[31] Direct Testimony of D. Dean Koujack, Attach. DDK-1 at 14; Direct Testimony of Ben R. Elsey, Attach. BRE-1 (PVRR tables).

economic model known as Encompass, to "identif[y] the supply portfolio that minimizes total costs while managing reliability constraints."[32] As noted, SPS evaluated six scenarios:

Table 1—Summary of Compliance Scenarios Evaluated by SPS[33]

Scenario 1	Retirement of all three Harrington Units (EOY 2024)
Scenario 2	Conversion of all three Harrington Units to operate on natural gas (EOY 2024)
Scenario 3	Installation of dry sorbent injection controls on all three Harrington Units (EOY 2024)
Scenario 4	Installation of dry scrubbers on all three Harrington Units (EOY 2024)
Scenario 5	Retirement of Harrington Units 1 & 2 / Convert Harrington Unit 3 to operate on natural gas (EOY 2024)
Scenario 6	Retirement of Harrington Unit 1 / Convert Harrington Units 2 & 3 to operate on natural gas (EOY 2024)

Each of those scenarios were evaluated against sensitivities for "base, low and high natural gas price forecasts and market energy price forecasts, and financial and planning load forecasts."[34] In addition, SPS also evaluated different assumptions for the cost of transmission network upgrades that might be necessary for additional generation.[35] In total, SPS evaluated 36 sensitivities across two load forecasts, three gas price forecasts, and three transmission interconnection cost forecasts. Under every single sensitivity, retiring one or more of the Harrington units was the least-cost option for SPS customers over the 2022-2041 planning horizon.[36]

As part of the stipulated settlement in Case No. 19-00170-UT, SPS agreed to retain an Independent Evaluator to review the Company's analysis of "a scenario in which all SPS's coal-

[32] Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 9; Direct Testimony of Ben R. Elsey at 11-12.

[33] Direct Testimony of Ben R. Elsey at 29; *see also* Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 11 (defining scenarios).

[34] Direct Testimony of Ben R. Elsey at 30.

[35] *Id.*

[36] *Id.*, Attach. BRE-1 (NPVRR Tables); *see also* D. Dean Koujak, Attach. DDK-1 at 14.

burning units are retired or replaced before 2030,"[37] which "necessarily" involved "independently verifying" and reviewing the 2021 Harrington Analysis.[38] The table below reflects the Independent Evaluator's "stress test" review, which evaluated each of the six scenarios described above against changes in load, interconnection cost, and gas prices. For every sensitivity run, the Independent Evaluator's report shows that retiring one or more of the Harrington units is the "best" outcome for ratepayers.[39]

Table 2—Independent Evaluator's Scenario Rankings[40]

Load Case	Interconnection Cost Assumption	Gas Forecast	Best Scenario	Next Best Scenario
Financial	200	Base	5	6
Financial	400	Base	6	2
Financial	600	Base	6	2
Planning	200	Base	6	5
Planning[2]	***400***	***Base***	***6***	***2***
Planning	600	Base	6	2
Financial	200	High	1	6
Financial	400	High	6	2
Financial	600	High	6	2
Planning	200	High	6	1
Planning	400	High	6	2
Planning	600	High	6	2
Financial	200	Low	6	2
Financial	400	Low	6	5
Financial	600	Low	6	2
Planning	200	Low	6	2
Planning	400	Low	6	2
Planning	600	Low	6	2

[37] *In the Matter of Southwestern Public Service Company's Application for (1) Revision of its Retail Rates Under Advice Notice No. 282; (2) Authorization and Approval to Shorten the Service Life of and Abandon its Tolk Generating Station Units; and (3) Other Related Relief,* Final Order Adopting Certification of Stipulation, NMPRC Case No. 19-00170-UT, (May 20, 2020).

[38] Direct Testimony of D. Dean Koujak at 7-8.

[39] *Id.*, Attach. DDK-1 at 14 (Table 3 demonstrating that retiring one unit is the "best" scenario under every forecast except the high and base case, financial forecasts, under which retiring all three Harrington units or two units are the "best," respectively).

[40] *Id.*

The bulk of the conversion costs are for the pipeline extension, which will need to be the same size and cost whether two or three Harrington units are converted to gas.[41] That does not mean, however, that the best or most economical decision is to approve SPS's Application to convert all three units to gas just in case the third unit might someday become needed. For the reasons discussed below, the cost savings from not converting and maintaining the likely-unused unit are likely higher than the $5 million (base case, NPVRR) that SPS's modeling shows. The cost savings to ratepayers could be very significant if the Commission, in a subsequent proceeding found it was appropriate to withhold additional profits to SPS shareholders for the remaining plant balances for the unneeded plant.

More importantly, the lowest-risk decision is actually to withhold approval for the conversion of Unit 1, since SPS would still retain optionality to convert the third unit within just a few months, should SPS actually need the generating capacity at some point in the future.[42] Indeed, that was the Independent Evaluator's conclusion.[43] On the other hand, once the Commission approves, and the Company invests in, converting the third unit, there is no way to reverse course and ratepayers will be liable for those costs.

In sum, SPS's request to convert all three units is not supported by substantial evidence in the record. Converting all three Harrington units is not needed to serve customer demand or for reliability, and it is indisputably not the least-cost option for ratepayers.[44] For that reason alone, the Commission should deny the CCN.

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[41] SPS Ex. 7, Direct Testimony of Ben R. Elsey at 37.

[42] Tr. 33; 128: 12-19.

[43] SPS Ex. 10, Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 15 of 16.

[44] PURA § 37.056. The Commission must also consider the effect of granting the certificate on the recipient of the certificate and any electric utility serving the proximate area; the impact to recreational and park areas; and historical and aesthetic values.

II. SPS's analysis understates the costs of its preferred gas-conversion alternative. [Preliminary Order Issues 9, 12, 13, 14, 15, 18, 19]

SPS's own economic analysis makes clear that retiring Harrington Unit 1 and converting the other two units to gas is the least-cost option for complying with the Texas Agreement to cease burning coal, while also meeting customer reliability and capacity needs. In fact, retiring one unit saves customers $5 million under the Company's base case assumptions, up to $24 million under a high gas, optimistic Planning Load forecast, and up to $55 million savings under the high gas, median Financial Load forecast.[45] As demonstrated by Sierra Club witness Glick, however, the Company's cost savings associated with retiring one Harrington unit are likely understated due to a number of flawed or unsupported assumptions.[46]

First, SPS substantially understated the sustaining capital costs at the plant after it converts to gas. As Ms. Glick explains, SPS assumed annual capital expenditures of $3.75 million for all three units after conversion, which is significantly lower than the historical average of $18.6 million annual capital cost for operating Harrington; significantly lower than the average $12.5 million annual costs that other utilities report to U.S. Energy Information Agency for operating similarly-sized gas plants; and less than SPS's own reported annual $8.6 million spending at similar gas steam units, scaled to a plant the size of Harrington.[47] SPS insists its estimate is reasonable, but failed to provide the Commission with any supporting documentation. SPS further assumed (without any explanation or technical support in the record) that there would be only be a small 10% incremental reduction in sustaining capital expenditures with the retirement of Unit 1—a full third of the Harrington plant.

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[45] SPS Ex. 7, Direct Testimony of Ben R. Elsey at 32, 35, & Attach. BRE-1 at 1-4.; Tr. 55: 9-17.

[46] Sierra Club Ex. 1, Direct Testimony of Devi Glick at 33-47.

[47] *See* Sierra Club Ex. 1, Direct Testimony of Devi Glick at 33-34, and exhibits cited.

Second, SPS underestimated the fixed operations and maintenance ("FOM") costs that could be avoided by early retirement by using the cost stream for continuing to operate on coal through 2024, instead of using the FOM assumptions associated with converting to gas, which should have been $1.5 million lower for all units.[48] SPS's capital and FOM cost estimates are not only unexplained and unsupported, but understate the likely savings that SPS customers would realize if the Company shut down Harrington Unit 1.

Recall that SPS's own analysis indicates that the conversion of only two Harrington units results in a $5 million savings (NPVRR) for customers, relative to converting all three, under SPS's planning load base case—with an average savings among all scenarios and sensitivities of $25 million, and up to a $55 million savings under one scenario.[49]

Finally, the retirement of Harrington Unit 1 in 2024 would also avoid potential future environmental compliance costs. In its 2021 Integrated Resource Plan modeling, which relied on the same EnCompass modeling SPS used for the Harrington Analysis, the Company explicitly modeled carbon price sensitivities, recognizing the very real and significant economic impact that carbon regulations would impose on the Company's fossil generation fleet.[50] Indeed, as a steam-cycle plant, Harrington's converted units will have poor heat rates, meaning not only higher fuel costs, but higher CO_2 emission per megawatt-hour of electricity. If a CO_2 price is imposed on Harrington's emissions at some point over the next 18 years (which is likely) that cost penalty would affect Harrington more than other gas plants in the Company's fleet because

[48] Sierra Club Ex. 1, Direct Testimony of Devi Glick at 38, 41.

[49] SPS Ex. 10, Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 15 of 16; *see also* SPS Ex. 7, Direct Testimony of Ben R. Elsey, Attach. BRE-1 at 1-4.

[50] Sierra Club Ex. 1, Direct Testimony of Devi Glick at 29, and Attach. DG-4 at 85-89 (SPS's Integrated Resource Plan, filed in Case No. 21-00168-14 UT).

as an inefficient, relatively slow-ramping gas unit, Harrington lacks the flexibility to cycle quickly to support wind and solar.[51]

Moreover, SPS failed to model or even consider the compliance risk associated with other impending environmental regulations, which could be avoided or mitigated with the retirement of Harrington Unit 1. Specifically, the retirement of Unit 1 could avoid costs associated with the Clean Air Act's separate requirements under the Regional Haze Rule and EPA's recently-proposed Good Neighbor Rule, each of which are designed to reduce nitrogen oxide pollution from large power plants (among other sources) that contribute to ozone pollution and impaired air quality in national parks.

As SPS concedes, the Harrington units have no pollution controls for nitrogen oxides,[52] yet the Company assumes that the plant will incur zero environmental compliance costs over the next 14-18 years that SPS expects the converted units to operate. That is an unreasonable assumption. Indeed, under the Clean Air Act's Regional Haze Rule, Unit 1 is potentially subject to installing expensive "best available retrofit technology"—typically, selective catalytic reduction technology—or other reasonable nitrogen oxide controls to protect visibility in national parks.[53] And under EPA's recently-proposed Good Neighbor Rule, designed to protect against harmful ground-level smog pollution, Unit 1 would be required to install selective catalytic reduction pollution controls by 2026, or procure pollution credits commensurate with the pollution reductions achievable with those controls.[54] At the hearing, SPS witness West

[51] Sierra Club Ex. 1, Direct Testimony of Devi Glick at 29-30.

[52] Tr. 132: 14-18.

[53] *See* 42 U.S.C. § 7491(b)(2), (g); Tr. 134; *see also* Sierra Club Ex. 1, Direct Testimony of Devi Glick at 19-20.

[54] Sierra Club Ex. 1, Direct Testimony of Devi Glick at 21-22.

estimated that selective catalytic reduction could cost as much as $20-30 million per unit.[55] Thus, the retirement of Unit 1 would eliminate the risk that customers would be required to pay for millions of dollars in capital costs to reduce nitrogen oxides pollution. Had the Company properly considered the environmental compliance risk associated with CO_2 or regional haze, the benefits of retiring one of the Harrington units would have been even clearer.

III. SPS failed to demonstrate any firm capacity or reliability need for converting Harrington Unit 1, or that the converted unit will be used and useful. [Preliminary Order Issues 9, 12, 13, 14, 15, 18, 31]

To show that the proposed conversion of all three Harrington units serves the public interest and necessity, the Commission must also consider the transmission reliability need for converting all three units.[56] SPS failed to demonstrate any such need.

First, as discussed, under every one of the 36 sensitivities modeled by SPS, retiring at least one of the Harrington units is the least-cost option. Second, retiring one Harrington unit is the most economical, in large part, because SPS customers do not actually need the full capacity or energy provided by the Harrington plant. Under the Company's financial load forecast—i.e., its "median expectation" for future energy demand—SPS could retire Unit 1 and still have a capacity surplus until 2027, giving the Company nearly five years to procure additional resources.[57] More troubling, according to the Company's own economic modeling supporting the Application, Harrington Unit 1 will *never* run after it is converted, and the other two units

[55] Tr. 135.

[56] PURA § 37.056. The Commission must also consider the effect of granting the certificate on the recipient of the certificate and any electric utility serving the proximate area; the impact to recreational and park areas; and historical and aesthetic values. *Id.*

[57] SPS Ex. 14, Direct Testimony of John M. Goodenough at 7; As discussed below, with the retirement of Unit 1, SPS would have a capacity deficit of only 61 MW in 2027.

will operate only minimally.[58] Nor are the Harrington units as flexible or nimble as other faster-ramping sources that can quickly respond to periods of high demand.[59] SPS does not need the full capacity of Harrington, and the Company can meet its energy needs through a combination of its lower cost generation resources and market purchases.

That conclusion is confirmed by the results of SPS's own July 2019 Transmission Planning study, which the Company conducted to evaluate the transmission impacts of retiring the Harrington units. In that study, SPS used a different "economic dispatch" model called PROMOD, but the results were the same: The "Harrington units did not make it into the economic dispatch used in the models for this study, leading us to believe that these units may not be dispatched when converted."[60] In other words, according to SPS's own economic dispatch analyses conducted with two different modeling platforms and using the Company's preferred assumptions, SPS's proposed CCN will result in millions of dollars in customer costs for a unit that will never run.

Perhaps recognizing that problem, SPS conducted yet another modeling exercise as part of its rebuttal case, this time arbitrarily reducing Harrington's minimum-up time from 72 hours to 18 hours (without providing any supporting documentation), and also removing 1,000 MW of planned wind resources from the model. Even with those new assumptions, which were clearly designed to make it appear that the converted Harrington units will run more frequently, the model predicts Harrington Unit 1 will only operate at a 0.5% to 1.8% capacity factor.[61] Thus,

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[58] Direct Testimony of Devi Glick at 24, 54.

[59] *Id.* at 31.

[60] Sierra Club Ex. 1, Direct Testimony of Devi Glick, Attach. DG-8 at 2 (Harrington Station Fuel Repowering System Impact Study. Xcel Energy Services, Inc. Transmission Planning, South. July 10. 2019).

[61] Rebuttal Testimony of Ben R. Elsey at 50.

SPS is asking customers to pay $5 million for a power plant that operates, under SPS's most favorable assumptions, only 43 to 157 hours a year. In any case, SPS's revised, utility-biased modeling does not demonstrate any need for Harrington Unit 1. To the contrary, it reaffirms that SPS can meet any energy needs through a combination of its lower cost generation resources and market purchases.

Finally, the conversion of Harrington Unit 1 is not needed transmission system reliability.[62] As noted, like the EnCompass modeling in this case, SPS's July 2019 Transmission Planning study indicated that the Harrington units "may not be dispatched when converted."[63] That July 2019 study further concluded that "if the Harrington generation is converted to natural gas but is not dispatched, it is the same as retiring the generation," because unused units are not able to provide transmission support.[64] The Transmission Planning group went on to conclude that the retirement of the Harrington units "had no adverse impacts on the local SPS transmission system."[65] The Company's 2019 transmission analysis came to the conclusion that "the Harrington generation should be replaced and relocated to the south west part of the SPS transmission system."[66] In that scenario, the transmission support functions provided by Harrington would be provided by synchronous condensers.

If the three units can be retired without transmission reliability issues, SPS could certainly

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[62] *See, e.g.*,Tr. 33:14-24.

[63] Sierra Club Ex. 1, Direct Testimony of Devi Glick, Attach DG-8 at 2.

[64] *Id.* at 20 of 24.

[65] *Id.* at 14 of 24.

[66] Sierra Club Ex. 1, Direct Testimony of Devi Glick, Attach. DG-8 at 21. That conclusion is bolstered by SPS's EnCompass economic modeling in this case, which incorporates reliability constraints, in that it accounts for forced outages of each generation unit on the system. That SPS's own model shows that Harrington Unit 1 might never run after conversion suggests that the Southwestern Power Pool will not need Harrington Unit 1 for system needs, even when other generation is expected to be unavailable. *See, e.g.*, Tr. 450-51.

retire Unit 1 and convert the other two units while maintaining safe and reliable service. Because SPS failed to meet its burden of demonstrating that the proposed conversion is necessary to providing reliable service the Commission should reject SPS's proposal to convert all three Harrington units. At most, the Commission should allow the Company to convert two Harrington units to gas, and direct SPS to retire or mothball Unit 1.

IV. Neither SPS's shareholders' profits nor short-term rate impacts should be a barrier to retiring one Harrington unit. [Preliminary Order Issues 9, 18]

Although SPS's own economic analysis makes clear that retiring one Harrington unit would save customers money over the long term while still ensuring excess capacity through 2027, SPS argues against that alternative because it would supposedly require short-term (2022-2024) rate increases. Those initial cost impacts are largely driven by the Company's assumption that retirement necessitates the acceleration of shareholders' collection of Unit 1's remaining book balance and return on investment.[67] But SPS shareholders' profits need not be a barrier to overall customer cost savings.

The Commission has broad authority to take steps to mitigate any rate increases that may result from the early retirement of Harrington Unit 1,[68] including extending the depreciation of the plant or limiting shareholders' collection of profits, options that SPS does not dispute are available to the Commission.[69] Moreover, due to the past agreements to extend the depreciation schedules for the Harrington units,[70] SPS shareholders have already benefited from more returns (i.e., profits) on their original investments. In similar circumstances, where an asset is retired

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[67] SPS Ex. 7, Direct Testimony of Ben R. Elsey at 37 ("The high initial customer cost impact is largely driven by the accelerated depreciation expense and decommissioning costs . . . .").

[68] *See* Tex. Util. Code Ann. § 39.001(a). *Sw. Elec. Power Co. v. Pub. Util. Comm'n*, 419 S.W.3d at 426.

[69] SPS Ex. 6, Rebuttal Testimony of William A. Grant at 6, 9, 13.

[70] *Id.* at 13.

prematurely, this Commission has allowed shareholders a return of their investment under the original depreciation schedule, but disallowed a return on investment after retirement, to mitigate any rate increase.[71] The Commission should do the same here.

There would be no unfairness in a Commission order denying SPS's return on investment after the retirement of Unit 1. Over the past several years, SPS has continued to invest substantial costs in the Harrington generating stations despite numerous red flags. As the Company now admits, SPS knew as early as June 2018, that Harrington Station was causing exceedances of the SO_2 NAAQS,[72] yet the Company continued its business as usual approach of investment. Moreover, despite evidence that Harrington Unit 1 is increasingly uneconomic to operate—reflected in the sharp decline in capacity factor over the 2015-2020 timeframe—the Company has continued to invest in the unit, resulting in additional consumer costs.[73] The extensions of the units' useful lives have already enabled shareholders to recover more return on investments, and for a longer period, than was anticipated when the plant was put in service. In short, shareholders should not be further rewarded for carrying an unnecessary and uneconomic plant in the Company's portfolio.

Conversely, as explained, allowing SPS to convert all three units would result in unfairness to SPS customers. Indeed, SPS customers will be required, over the 2022-2040

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[71] *See, e.g.*, Direct Testimony of Devi Glick at 13; *see also Application of Southwestern Electric Power Company for Authority to Change Rates*, Docket No. 51415, Final Order at 12 (Jan. 14, 2022) (allowing utility to continue to recover a return on investment in the Dolet Hills power plant through the retirement date, but placing the plant balance into a regulatory asset after retirement, and allowing the return of investment without a return on investment through its original depreciation schedule), *available at* http://interchange.puc.texas.gov/search/documents/?controlNumber=51415&itemNumber=705; *Application of Southwestern Electric Power Company for Authority to Change Rates*, Docket No. 46449, Final Order at 20 (Mar. 19, 2018) (same conclusion for retired Welsh Unit 2 power plant), *available at* http://interchange.puc.texas.gov/Documents/46449_825_973078.PDF.

[72] Tr. 36-37.

[73] *See* Sierra Club Ex. 1, Direct Testimony of Devi Glick at 11-12.

timeframe, to pay at least $5 million in increased electricity rates to pay for the conversion of a power plant unit that, by SPS's own projections, will never operate. The Commission can leave the door open to all the potential options to address the Unit 1 plant balance by authorizing SPS to convert only two Harrington units at this time.

V. The Commission has authority to approve the conversion of only two Harrington units, and may place other reasonable conditions on any CCN. [Preliminary Order Issues 9, 41]

The PUC has "broad authority" to "to do all things, whether specifically designated by this Act or implied herein, necessary and convenient to the exercise of this power and jurisdiction . . . ."[74] In evaluating an application for a certificate of convenience and necessity, the Commission not only has authority to issue or deny the certificate, but also to issue it for the construction or operation of a portion only of the contemplated facility.[75]

The Commission should reject SPS's proposal to convert all three Harrington units because the Company failed to meet its burden of demonstrating that the proposed conversion is necessary to provide reliable service, will be used and useful, or the most economical choice among the alternatives.[76] Instead, to the extent the Commission concludes it is in the public interest, the Texas PUC should exercise its authority to issue a limited CCN authorizing SPS to

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[74] PURA § 16(a); *In Re Petition of Cent. Power & Light Co. for Declaratory Ord.,* 15 Tex. P.U.C. Bull. 1746 (Jan. 10, 1990) ("The Commission has the general power to regulate and supervise the business of every public utility within its jurisdiction and to do all things, whether specifically designated in this Act or implied herein, necessary and convenient to the exercise of this power and jurisdiction.)

[75] *See* PURA § 37.056; *Pub. Util. Comm'n of Tex. v. Texland Elec. Co.*, 701 S.W.2d at 266, writ refused NRE (Mar. 5, 1986); *see also In re Qwest Communications Intern.*, 131 N.M. 770, 42 P.3d 1219,1221 (N.M. Sup. Ct. 2002) (The Commission has "broad authority" to regulate utilities and "place conditions" on any certificate of convenience and necessity, or take other "appropriate measures necessary to ensure" that the proposed certificate does not result in adverse consequences to customers).

[76] *See, e.g.*, PURA § 37.056; *Cities for Fair Utility Rates*, 924 S.W.2d at 935.

convert only two Harrington units.[77] In doing so, the Commission would protect customers from millions of dollars in potentially unnecessary capital and operational costs associated with converting a generation resource that will be used seldom, if at all.[78] A limited CCN would further protect customers by requiring SPS to submit an amended application demonstrating that any capacity replacement for the retired Harrington unit—whether by converting or replacing it with renewable energy—is actually necessary, the least-cost option, and consistent with New Mexico's clean energy goals.

Finally, SPS's $3.75 million per year assumption for ongoing capital expenses post-conversion[79] is a material factor in Company's attempt to demonstrate that conversion is the prudent alternative to replacement. Even though the Company failed to provide any supporting documentation for that capital cost forecast, Company witnesses strenuously argued against Ms. Glick's use of historical SPS spending on similar plants and national comparisons, which pointed to a much higher number. The Company, not its customers, should bear the risk that SPS guessed wrong. Whether the Commission follows the evidence cited by Sierra Club to deny authorization for conversion of Unit 1, or approves conversion of all three Harrington units, the Commission should condition any certificate of public convenience and necessity on customers being protected from the adverse impacts of SPS low-balling its cost estimates for gas conversion. Specifically, the Commission should find and order that annual capital costs at Harrington in excess of $3.75 million are presumptively unreasonable, and New Mexico customers will not be required to pay for future costs associated with carbon or Clean Air Act regulation at Harrington.

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[77] *See In re Qwest Communications Intern.,* 42 P.3d at 1221.

[78] *Id.*

[79] Sierra Club Ex. 1, Direct Testimony of Devi Glick at 40-41; SPS Ex. 13, Rebuttal Testimony of Mark Lytal at 12; SPS Ex. 8, Rebuttal Testimony of Ben R. Elsey at 61.

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CERTIFICATE OF SERVICE

I, Joshua Smith, certify that a copy of the foregoing Sierra Club submission was served upon all parties of record in this proceeding on May 11, 2022, by electronic mail, as permitted by the presiding officer.

/s/ Joshua Smith
Joshua Smith
Sierra Club Environmental Law Program