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| <b>APPLICATION OF SOUTHWESTERN</b> | <b>)</b> | <b>BEFORE THE PUBLIC UTILITY</b>    |
| <b>PUBLIC SERVICE COMPANY TO</b>   | <b>)</b> | <b>COMMISSION OF TEXAS</b>          |
| <b>AMEND ITS CERTIFICATE OF</b>    | <b>)</b> |                                     |
| <b>CONVENIENCE AND NECESSITY</b>   | <b>)</b> | <b>REFERRED TO THE STATE OFFICE</b> |
| <b>TO CONVERT HARRINGTON</b>       | <b>)</b> | <b>OF ADMINISTRATIVE HEARINGS</b>   |
| <b>GENERATING STATION FROM</b>     | <b>)</b> |                                     |
| <b>COAL TO NATURAL GAS</b>         | <b>)</b> |                                     |

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**SIERRA CLUB'S EXCEPTIONS TO THE PROPOSAL FOR DECISION**

August 18, 2022

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Sierra Club respectfully submits these exceptions to the Administrative Law Judges' ("ALJs") July 25, 2022 Proposal for Decision. The ALJs recommend that the Commission approve Southwestern Public Service Company's ("SPS's" or "the Company's") requested certificate of convenience and necessity ("CCN") to convert all three, existing coal-burning electric generating units at Harrington Station to burn natural gas, and for authorization to construct and operate a new pipeline to burn natural gas. For the reasons discussed below, the Proposal for Decision is not supported by substantial evidence, and should be reversed. Moreover, the enactment of the Inflation Reduction Act, which directs nearly \$400 billion in tax credits and direct spending to fund clean energy and transmission resilience investments, will have significant implications for the economics of SPS's proposed resource portfolio. In light of significant changes in the applicable law and factual assumptions underlying SPS's proposed conversion, the Commission should remand the Proposal for Decision and direct the ALJs to reconsider the implications of the new law.<sup>1</sup>

## **INTRODUCTION**

SPS's Harrington Generating Station cannot continue to burn coal past December 31, 2024. The Company voluntarily committed itself and its customers to either retire or convert Harrington to burn gas in a binding, closed-door agreement with the Texas Commission on Environmental Quality ("TCEQ") long before it filed its Application for a CCN. As a result, and

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<sup>1</sup> Legislative text for the Inflation Reduction Act of 2022 is available at [https://www.democrats.senate.gov/imo/media/doc/inflation\\_reduction\\_act\\_of\\_2022.pdf](https://www.democrats.senate.gov/imo/media/doc/inflation_reduction_act_of_2022.pdf). The Congressional Research Service's analysis of the law is available at <https://crsreports.congress.gov/product/pdf/R/R47202> Under Texas Rule of Evidence 201, the Commission has broad authority to take notice of the text of the new law, and the Congressional Research Office's evaluation of the law because the law can be "accurately and readily determined" from review of the federal government's publicly-accessible website, "whose accuracy cannot reasonably be questioned."

because SPS never sought any actual project proposals for resources sufficient to replace all three Harrington units while also maintaining its capacity obligations and meeting its commitment to cease burning coal in 2024, the only practical options (that SPS evaluated) are to either (1) approve a CCN for the conversion of all three units, or (2) approve the conversion of the two newer units and deny the CCN for Unit 1. Of the two options available to the Commission, the Company's *own* modeling and the Independent Evaluator's report make clear that converting two Harrington units and retiring the third is the "best," least-cost option for complying with the Texas agreement to cease burning coal by December 31, 2024, while also maintaining system reliability.<sup>2</sup>

The ALJs' Proposal for Decision ("PFD") fails to give proper weight to those undisputed facts and should be reversed, for several reasons. First, recent changes in federal law will materially impact whether converting the Harrington units to burn gas is the least-cost, least-risk option for complying with SPS's private deal with TCEQ.<sup>3</sup> On August 16, 2022, President Biden signed into law the Inflation Reduction Act, which directs nearly \$400 billion in tax credits and spending to renewable energy investments, including the extension of the 30% renewable energy tax credit until 2032, and a new 40% tax credit for battery storage sited at a retired coal-burning generation unit. Thus, by retiring Harrington Unit 1 and siting additional renewable and battery

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<sup>2</sup> SPS Ex. 7, Direct Testimony of Ben Elsey, Attach. BRE-1 (NPVRR Tables); SPS Ex. 10, Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 15 of 16 (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).

<sup>3</sup> 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); see also Tr. 40-41 (SPS Witness West noting that there was no formal notice and comment process for the Agreed Order).

resources at Harrington, SPS could take advantage of its existing interconnection rights<sup>4</sup> and provide additional reliability support, while also maintaining sufficient capacity and significantly reducing the potential costs of retiring and replacing that unit. Indeed, utilities across the country, including SPS's parent company, Xcel Energy, have recognized the Inflation Reduction Act will be "really good" for utilities, "but ultimately great for our customers" in making the clean energy transition "even more affordable."<sup>5</sup> The Inflation Reduction Act will not only slash SPS's battery resource costs by 30-40%, but would also extend and increase the tax credits available for wind and solar investments through 2032. Like the battery tax credit, those 30% renewable energy credits increase to 40%, if SPS sites those resources at Harrington, and 50% if the Company uses domestically produced supplies. Moreover, fundamental economic and market principles indicate that the law will result in significant additions of zero-marginal cost energy to the electric system, materially altering SPS's assumed energy market costs and revenues. In light of the significant change in applicable law and factual assumptions underlying SPS's proposed conversion, the Commission should remand the Proposal for Decision and direct the ALJs to reconsider the implications of the new law.<sup>6</sup>

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<sup>4</sup> SPS Ex. 7, Direct Testimony of Elsey at 42 (noting that siting battery storage at Harrington would not require transmission upgrades, and would not be subject to transmission interconnection delays).

<sup>5</sup> Xcel Energy, Inc. (XEL) CEO Robert Frenzel on Q2 2022 Results—Earnings Call Transcript (July 28, 2022), <https://seekingalpha.com/article/4527106-xcel-energy-inc-xel-ceo-robert-frenzel-on-q2-2022-results-earnings-call-transcript>.

<sup>6</sup> Legislative text for the Inflation Reduction Act of 2022 is available at [https://www.democrats.senate.gov/imo/media/doc/inflation\\_reduction\\_act\\_of\\_2022.pdf](https://www.democrats.senate.gov/imo/media/doc/inflation_reduction_act_of_2022.pdf). The Congressional Research Service's analysis of the law is available at <https://crsreports.congress.gov/product/pdf/R/R47202> Under Texas Rule of Evidence 201, the Commission has broad authority to take notice of the text of the new law, and the Congressional Research Office's evaluation of the law because the law can be "accurately and readily determined" from review of the federal government's publicly-accessible website, "whose accuracy cannot reasonably be questioned."

Second, contrary to the PFD,<sup>7</sup> the record makes clear that all three Harrington units are *not* needed to ensure system reliability. Indeed, the Company’s own modeling shows that Harrington Unit 1 is highly unlikely to ever be used if it is converted.<sup>8</sup> SPS’s transmission planning group similarly concluded that the converted Harrington units would seldom (if ever) be dispatched, and therefore would not provide transmission support.<sup>9</sup> In other words, SPS’s own transmission analysis shows that three units can be retired without transmission reliability issues; thus, SPS could certainly retire Unit 1 and convert the other two units while maintaining safe and reliable service. And even if Unit 1 were needed in the future, the Independent Evaluator concluded that the unit could be converted in a matter of months.<sup>10</sup> Waiting until it is clear that the unit is needed (if it ever is) would save both ratepayers and the Company significant time and resources.

Third, the PFD’s conclusion that converting all three Harrington boilers is the “most . . . cost-effective option” is wrong.<sup>11</sup> In fact, under *every one* of SPS’s own modeling forecasts, retiring at least one Harrington or all of the Harrington units instead of converting all three to burn gas was the least-cost, “best” option, and would save customers millions of dollars.<sup>12</sup> Under the Company’s base case, the retirement of Unit 1 saves customers \$5 million over the planning

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<sup>7</sup> PFD ¶ 52.

<sup>8</sup> Sierra Club Ex. 1, Direct Testimony of Devi Glick at 24, 54.

<sup>9</sup> Sierra Club Ex. 1, Direct Testimony of Devi Glick, Attach. DG-8 at 2, 20 (Harrington Station Fuel Repowering System Impact Study. Xcel Energy Services, Inc. Transmission Planning, South. July 10, 2019) (SPS’s Transmission Planning concluding that the Harrington units “may not be dispatched when converted” and “if the Harrington generation is converted to natural gas but is not dispatched, it is the same as retiring the generation.”).

<sup>10</sup> SPS Ex. 10, Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 15 of 16.

<sup>11</sup> PFD ¶ 54.

<sup>12</sup> SPS Ex. 7, Direct Testimony of Ben Elsey, Attach. BRE-1 (NPVRR Tables); SPS Ex. 10, Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 14.

period; but under the Company’s “median” growth forecast, the savings are even higher—\$29 million—and even reach as high as \$55 million with a different assumption for network upgrade costs.<sup>13</sup> The average savings, of converting only two units instead of three, under all scenarios and sensitivities tested in SPS’s modeling is \$25 million.<sup>14</sup> The PFD’s conclusion that converting all three Harrington units to burn gas is the “most” cost-effective option is simply not supported by any evidence in the record.

Fourth, the PFD’s conclusion that converting all three Harrington units is “necessary” to maintain adequate capacity is likewise unsupported by the record.<sup>15</sup> In fact, 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.<sup>16</sup> Moreover, given the recent enactment of the Inflation Reduction Act, it is very likely that the Company could more cost-effectively install battery or renewable energy resources at the Harrington site, thereby maintaining transmission interconnection rights, providing fast-ramping transmission support, and addressing the Company’s capacity and energy needs while also minimizing the risk of binding captive ratepayers to spending millions of dollars converting a Harrington unit that is likely to be obsolete in just a few years.

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<sup>13</sup> SPS Ex. 7, Direct Testimony of Ben R. Elsey at 32, 35, & Attach. BRE-1 at 1-4. In Mr. Elsey’s NPVRR Tables, at Attach. BRE-1, SPS’s “financial” load modeling forecasts represent the “median expectation for future energy and peak demand.” SPS Ex. 14, Direct Testimony of John M. Goodenough at 7.

<sup>14</sup> SPS Ex. 10, Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 14 of 16.

<sup>15</sup> PFD ¶ 60.

<sup>16</sup> *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.

Finally, the PFD concludes that “it is appropriate to consider qualitative factors in addition to costs,”<sup>17</sup> but arbitrarily failed to consider the practical, very real environmental compliance risks associated with continuing to burn gas at all three Harrington units, as well as the health benefits of retiring one of the units. Indeed, the PFD fails to mention, let alone consider, the demonstrated environmental compliance risks associated with converting Harrington. First, if a carbon 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 Harrington is an inefficient steam-cycle plant with poor heat rates, meaning not only higher fuel costs, but higher CO<sub>2</sub> emission per megawatt-hour of electricity.<sup>18</sup> The PFD also ignored compliance risks associated with the Clean Air Act’s Regional Haze and proposed Good Neighbor Rules, which are designed to reduce nitrogen oxide pollution from large power plants (among other sources) that impair air quality in national parks and contribute to downwind violations of health standards. The precise costs of compliance with impending Clean Air Act rules may be uncertain, but it is not reasonable to ignore that risk. The PFD also ignores the very real, practical environmental and public health impacts of converting all three Harrington units to burn gas. Although burning natural gas reduces emissions relative to coal, it still contributes to carbon pollution and is still a significant source of harmful nitrogen oxides and volatile organic compounds. Retiring one of the Harrington units would mitigate at least some of those environmental and public health impacts, but the PFD arbitrarily ignores those qualitative considerations.

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<sup>17</sup> PFD ¶ 51.

<sup>18</sup> Sierra Club Ex. 1, Direct Testimony of Devi Glick at 29-30.

In this proceeding, the Commission has an obligation to ensure that there is substantial evidence demonstrating that the proposed conversion of all three Harrington units is necessary to serve customer demand, that the proposed conversion is the most cost-effective option among feasible alternatives for meeting the utility's need, and that the converted Harrington units will be used and useful. The PFD fails to meet that standard, and fails to support the conversion of all three Harrington units to burn gas. Accordingly, the Commission should reject the PFD, and approve the conversion of only two of the three Harrington units. Alternatively, and in light of significant changes in the applicable law and factual assumptions underlying SPS's proposed conversion, the Commission should remand the Proposal for Decision and direct the ALJs to reconsider the implications of the recently-enacted Inflation Reduction Act.

### **LEGAL STANDARD**

Under Public Utility Commission Procedural Rule § 22.262, the Commission may modify an administrative law judge's proposed finding of fact or conclusions of law to ensure that any final decision "properly appl[ies] or interpret[s] applicable law," and is "supported by a preponderance of the evidence."<sup>19</sup> Where the Commission makes any such change, it "shall state in writing the specific reason and legal basis for its determination."<sup>20</sup>

The Commission may also remand the proceeding for further consideration with or without reopening the hearing, and may limit the issues to be considered.<sup>21</sup> If, on remand, additional evidence is admitted that results in a substantial revision of the proposed decision or

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<sup>19</sup> 16 Tex. Admin. Code § 22.262(a).

<sup>20</sup> *Id.* § 22.262(b).

<sup>21</sup> *Id.* § 22.262(c).

the underlying facts, an amended or supplemental proposal for decision or proposed order shall be prepared under the Commission's Procedural Rules §22.261(d).

## EXCEPTIONS

### **EXCEPTION 1: The Commission Should Remand the Proposal for Decision, and Direct the Administrative Law Judges to Reopen the Record and Reconsider the Implications of the Inflation Reduction Act for the Conversion of the Harrington Units.**

As explained in Sierra Club's Initial Brief, SPS has the burden of demonstrating that its proposed conversion of all three Harrington units is necessary to serve customer demand, that the proposed conversion is the most cost-effective option among feasible alternatives for meeting the utility's need, and that the converted Harrington units will be used and useful.<sup>22</sup> The Commission, in turn, 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.<sup>23</sup>

It is well settled, however, that the obligation of the utility to analyze the prudence of its management and construction decisions is not a static or "once-and-done" responsibility.<sup>24</sup> That obligation is ongoing. Where, as here, "changing circumstances . . . arise as a project progresses," a utility must "respond prudently" and reevaluate the prudence of "its *continuation*

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<sup>22</sup> 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").

<sup>23</sup> 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").

<sup>24</sup> *Gulf States Utilities Co. v. La. Pub. Serv. Comm'n*, 578 So.2d 71, 85-86 (La. 1991) (applying the prudence standard in the utility's application for rate support and concluding that the decision to restart and continue the construction of a nuclear power plant was imprudent in light of changed federal regulations and costs).

of an investment as well as its decision to enter into that investment.”<sup>25</sup> Thus, the Company and the Commission have an ongoing obligation, throughout this proceeding, to continuously analyze the Company’s decision to convert Harrington to ensure that decision is the most reasonable option to fulfill the public’s utility needs.

Here, in light of significant changes in the applicable law and factual assumptions underlying SPS’s proposed CCN, the Commission should remand the Proposal for Decision and direct the ALJs to reconsider the implications of the recently-enacted Inflation Reduction Act.<sup>26</sup> As noted, on August 16, 2022, President Biden signed into law the Inflation Reduction Act, which directs nearly \$400 billion in tax credits and direct spending to fund clean energy and transmission resilience investments, and will have several significant implications for the economics of SPS’s proposed conversion of the Harrington Units.

First, the enactment of the Inflation Reduction Act will significantly decrease the cost of resources that could replace one or more of the Harrington units. Before the enactment of the IRA, for example, battery storage resources were not entitled to any federal tax credits. Now, with the enactment of the IRA, a stand-alone battery project is entitled to a 40% Investment Tax Credit if it is built at the site of a coal unit that retires after 2009.<sup>27</sup> Under the IRA, the base Investment Tax Credit for batteries (and any other zero carbon resource, including solar and

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<sup>25</sup> *Gulf States*, 578 So.2d at 85 (emphasis in original).

<sup>26</sup> As noted, the Commission has broad authority to take notice of the text of the new law because it can be “accurately and readily determined” from review of the federal government’s publicly-accessible website, “whose accuracy cannot reasonably be questioned.” Tex. R. Evid. 201.

<sup>27</sup> Inflation Reduction Act, Section 13102 (extension of existing ITC through December 31, 2024); Section 13701, 13702 (creating of a new Clean Electricity Production Credit and Clean Electricity Investment Credit that takes effect on January 1, 2025). The ITC available to battery projects is the same from enactment (August 16, 2022) through December 31, 2032.

wind resources) is 30% of the total cost. The tax credit increases by 10% if the facility is located in an “energy community,” which is defined, as relevant here, as a community located in the same U.S. Census tract as a coal unit that has retired since 2009.<sup>28</sup> Thus, SPS could immediately retire Harrington Unit 1 and construct a battery storage project at the facility and qualify for 40% tax credit, which is now also fully transferrable to any entity with tax liability.<sup>29</sup> Moreover, by siting additional renewable and battery resources at Harrington, SPS could take advantage of its existing interconnection rights<sup>30</sup> and avoid the transmission costs associated with procuring new generation offsite.

The Inflation Reduction Act will not only slash SPS’s battery costs by 30-40%, but it will increase the size and term of the Production Tax Credit (“PTC”) and ITC available to solar and wind projects. When SPS filed this case, the Company assumed that the ITC for wind and PTC for solar would step down substantially or expire in the near-term. Now, under the IRA, solar and wind resources have the opportunity to take either a 30% ITC or \$25/MWh PTC through December 31, 2032.<sup>31</sup> Like the IRA’s battery tax credits, the renewed solar and wind projects are

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<sup>28</sup> The IRA defines an “energy community” as three different categories of areas that have been impacted by the transition away from fossil fuels. For purposes of locating facilities close to the retired Tolk facility the third category is most relevant, and includes the census tract or adjoining census tracts at which a coal unit has been retired since 2009:

“(iii) a census tract—I) in which— (aa) after December 31, 1999, a coal mine has closed, or “(bb) after December 31, 2009, a coal-fired electric generating unit has been retired, or“(II) which is directly adjoining to any census tract described in subclause (I).’

<sup>29</sup> It is also worth noting that the “energy community” tax credit bump would also apply to the Tolk power plant, if SPS retires that resource.

<sup>30</sup> SPS Ex. 7, Direct Testimony of Elsey at 42 (noting that siting battery storage at Harrington would not require transmission upgrades, and would not be subject to transmission interconnection delays).

<sup>31</sup> Inflation Reduction Act, Section 13102 (extension of existing ITC through December 31, 2024); Section 13701, 13702 (creating of a new Clean Electricity Production Credit and Clean Electricity Investment Credit that takes effect on January 1, 2025).

subject to an additional 10% tax credit if they are located in what the act defines as an “energy community.”<sup>32</sup> These projects are also entitled to *another* additional 10% increase if certain U.S. manufactured components requirements are met.

Taking advantage of the IRA’s renewable energy and battery tax credit would likely materially alter the cost analysis for any replacement analysis. And for that reason, utilities across the country, including SPS’s parent company, Xcel Energy, have recognized the Inflation Reduction Act will be “really good” for utilities, “but ultimately great for our customers” in making the clean energy transition “even more affordable.”<sup>33</sup>

Second, the tax credits and direct subsidies in the Inflation Reduction Act are specifically designed to increase investments in the construction and operation of solar, wind, and battery resources. The increased penetration of those zero marginal cost resources will have a material impact on the energy market cost and revenue assumptions underlying SPS’s decision to convert the Harrington units. Indeed, the increased penetration of those zero marginal cost resources will drive down energy and market prices. Lower battery storage costs will reinforce that trend (while also facilitating the incremental addition of more renewables) by providing fast ramping resources that are better suited to support the build out of renewables than aging steam fossil plants or even older combined cycle units. The converted Harrington units, in turn, will be relatively expensive to operate compared to market energy and capacity prices, and other

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<sup>32</sup> An energy community is defined as being 1) a brownfield site; 2) an area which has or had certain amounts of direct employment or local tax revenue related to oil, gas, or coal activities and has an unemployment rate at or above the national average; or 3) a census tract or any adjoining tract in which a coal mine closed after December 31, 1999, or in which a coal-fired electric power unit was retired after December 31, 2009. *See* Inflation Reduction Act, Section 13101, 13102, 13701, and 13702.

<sup>33</sup> Xcel Energy, Inc. (XEL) CEO Robert Frenzel on Q2 2022 Results—Earnings Call Transcript (July 28, 2022), <https://seekingalpha.com/article/4527106-xcel-energy-inc-xel-ceo-robert-frenzel-on-q2-2022-results-earnings-call-transcript>.

alternative resources. This is why SPS's modeling shows them only operating a small percentage of the time. Moreover, as explained in the Direct Testimony of Devi Glick, the Harrington units are neither fast-ramping nor nimble generation resources, and not well suited to support the build-out of renewables because they cannot respond quickly to periods of high demand.<sup>34</sup> Battery storage resources, on the other hand, are able to quickly ramp up during times of high need or when renewable generation are variable.

Moreover, unlike wind, solar, and battery resources, the converted Harrington units will also be subject to fuel price volatility, which could become worse if utilization of gas plants in the region drops or becomes unpredictable. So even if the Harrington units are converted to operate on gas, it is likely that they will quickly become uncompetitive relative to clean energy resources, and it will be cheaper for SPS to build out battery storage and renewables and retire Harrington than to continue paying the costs necessary to operate and maintain it.

The material changes to the governing legal regime and the implications for SPS's underlying factual assumptions warrant remand and reconsideration of SPS's proposal to convert the Harrington units.

**EXCEPTION 2: All Three Harrington Units Are Not Needed to Ensure System Reliability.**

Contrary to the PFD,<sup>35</sup> the record makes clear that all three Harrington units are *not* needed to ensure system reliability. As explained in Sierra Club's Initial Brief, under every one of the 36 sensitivities modeled by SPS itself, retiring at least one of the Harrington units is the least-cost option. That is because SPS customers do not actually need the full capacity or energy provided by the Harrington plant. Indeed, SPS's own modeling shows that Harrington Unit 1 will

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<sup>34</sup> Sierra Club Ex. 1, Direct Testimony of Devi Glick at 31.

<sup>35</sup> PFD ¶ 52.

*never* run after it is converted, and the other two units will operate only minimally.<sup>36</sup> And because the converted Harrington units will not be as flexible or nimble as other faster-ramping sources that can quickly respond to periods of high demand,<sup>37</sup> the Company's modeling indicates that SPS can reliably 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."<sup>38</sup> The 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.<sup>39</sup> 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."<sup>40</sup> 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."<sup>41</sup> If the three units can be

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<sup>36</sup> Direct Testimony of Devi Glick at 24, 54.

<sup>37</sup> *Id.* at 31.

<sup>38</sup> 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).

<sup>39</sup> *Id.* at 20 of 24.

<sup>40</sup> *Id.* at 14 of 24.

<sup>41</sup> 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

retired or replaced without transmission reliability issues, SPS could certainly retire Unit 1 and convert the other two units while maintaining safe and reliable service.

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 and therefore provides no transmission reliability support. 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.

**EXCEPTION 3: Converting All Three Harrington Units Is Not the “Most” Cost-Effective Option.**

The PFD's conclusion that converting all three Harrington boilers is the “most . . . cost-effective option” is not supported by any evidence in the record.<sup>42</sup> In fact, under *every one* of SPS's own modeling forecasts, retiring at least one Harrington or all of the Harrington units instead of converting all three to burn gas was the least-cost option, and would save customers millions of dollars.<sup>43</sup> Even under the Company's optimistic and unrealistic load growth

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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.

<sup>42</sup> PFD ¶ 54.

<sup>43</sup> SPS Ex. 7, Direct Testimony of Ben Elsey, Attach. BRE-1 (NPVRR Tables).

assumptions,<sup>44</sup> the retirement of Unit 1 saves customers \$5 million over the planning period.<sup>45</sup> Under the Company's more realistic "median" growth forecast, retiring one unit results in even greater savings—\$29 million—versus converting all three units. Using different assumption for network upgrade costs, the savings are as high as \$55 million.<sup>46</sup> The Independent Evaluator came to the same conclusion: The retirement of Unit 1 is the "best," least-cost alternative.<sup>47</sup> The PFD's contrary conclusion is simply wrong.

SPS contends that its modeling was intentionally favorable to replacement alternatives due to aggressive cost assumptions.<sup>48</sup> As an initial matter, SPS's modeling demonstrating that the one-unit alternative is the least cost option is not dependent on replacement cost assumptions. In any event, and as explained above, the recent enactment of the Inflation Reduction Act makes clear that many of SPS's cost and resource assumptions were "impractical"; in fact, the Company's assumptions now appear to have significantly *overstated* the costs of renewable energy and battery replacement options. As discussed, under the new law, the extension of

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<sup>44</sup> 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.

<sup>45</sup> SPS Ex. 7, Direct Testimony of Ben R. Elsey at 32, 35, & Attach. BRE-1 at 1.

<sup>46</sup> SPS Ex. 7, Direct Testimony of Ben R. Elsey at 32, 35, & Attach. BRE-1 at 1-4. In Mr. Elsey's NPVRR Tables, at Attach. BRE-1, SPS's "financial" load modeling forecasts represent the "median expectation for future energy and peak demand." SPS Ex. 14, Direct Testimony of John M. Goodenough at 7.

<sup>47</sup> See Direct Testimony of D. Dean Koujak at 7-8; 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).

<sup>48</sup> Proposed decision at 12; SPS Initial Brief at 16.

renewable energy tax credits means that the costs of those resources between 2026 and 2032, will be 30% less than SPS assumed. The cost of installing battery storage at the Harrington site will be as much as 40% less than SPS assumed.<sup>49</sup>

In any event, the savings of retiring one unit is likely to be even greater than estimated because, as explained in the Direct Testimony of Devi Glick, SPS understated the sustaining capital costs at the plant after it converts to gas.<sup>50</sup> Indeed, the Company's forecasted costs are significantly lower than the company's historical average costs, lower than the average costs of other utilities' similarly-sized gas plants, and lower than SPS's own reported annual spending at similar gas steam units.<sup>51</sup> SPS has not provided any supporting documentation that its lower estimate is justified. Moreover, SPS assumed without support that there would only be a reduction of about 10% in sustaining capital expenditures with the retirement of Unit 1 despite the unit being a full third of the entire Harrington plant.<sup>52</sup>

Finally, as discussed below, SPS overstated the cost of retiring one Harrington unit by ignoring the environmental compliance costs that could be avoided under that alternative. As a steam-cycle plant, Unit 1 will have a poor heat rate, meaning not only higher fuel costs, but higher CO<sub>2</sub> emission per megawatt-hour of electricity. If a CO<sub>2</sub> price is imposed on Harrington's emissions at some point over the next 18 years (which is likely), that cost penalty would significantly impact Harrington.<sup>53</sup> And under EPA's impending Regional Haze and Good

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<sup>49</sup> SPS Ex. 7, Direct Testimony of Ben R. Elsey at 28 (assuming battery storage costs of \$1,500/kW).

<sup>50</sup> Sierra Club Ex. 1, Direct Testimony of Devi Glick at 34-35.

<sup>51</sup> See Sierra Club's Initial Post Hearing Brief at 12.

<sup>52</sup> See Sierra Club Initial Post Hearing Brief at 13.

<sup>53</sup> Sierra Club Ex. 1, Direct Testimony of Devi Glick at 29-30.

Neighbor Rules, Unit 1 could be required to install expensive selective catalytic reduction pollution controls, or procure pollution credits commensurate with the pollution reductions achievable with those controls.<sup>54</sup> With the retirement of one unit SPS and ratepayers could save \$20-30 million on not having to install just one environmental control on the retired unit.<sup>55</sup> The PFD arbitrarily ignored those costs. Moreover, the PFD's conclusion that converting all three Harrington units to burn gas is the "most" cost-effective option is simply wrong and unsupported by the record.

**EXCEPTION 4: Converting All Three Harrington Units is Not "Necessary" to Maintain Adequate Capacity.**

The PFD's conclusion that converting all three Harrington units is necessary to maintain capacity is likewise unsupported by the record.<sup>56</sup> In fact, 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.<sup>57</sup> 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. On the other hand, once the Commission approves, and the Company invests in,

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<sup>54</sup> Sierra Club Ex. 1, Direct Testimony of Devi Glick at 21-22.

<sup>55</sup> At the hearing SPS witness West estimated that selective catalytic reduction could cost as much as \$20-30 million per unit. Tr. 135.

<sup>56</sup> PFD ¶ 60.

<sup>57</sup> 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; *see also* 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.

converting the third unit, there is no way to reverse course and ratepayers will be liable for those costs.

The PFD's conclusion that converting all three Harrington units is necessary to maintain adequate capacity is incorrect. And even if SPS needed capacity, under the recently-enacted Inflation Reduction Act, it is now very likely that the Company could more cost-effectively install battery or renewable energy resources *at the Harrington site*, allowing the Company to maintain transmission interconnection rights and providing fast-ramping transmission support, while also addressing any capacity needs that might arise. If the Commission concludes that maintaining adequate capacity is a concern (it is not), the Commission should remand this case to the ALJs for further consideration of alternative capacity resources in light of the Inflation Reduction Act.

**EXCEPTION 5: The ALJs Erred in Ignoring the Qualitative Benefits of Retiring Unit 1.**

The PFD concludes that “it is appropriate to consider qualitative factors in addition to costs,”<sup>58</sup> but arbitrarily failed to consider the practical, very real environmental compliance risks associated with continuing to burn gas at all three Harrington units, as well as the health benefits of retiring one of the units. As an initial matter, the PFD fails to mention, let alone consider, the demonstrated environmental compliance risks associated with converting Harrington. As noted, if a carbon price is imposed on Harrington's emissions at some point over the next 18 years, that cost penalty would affect Harrington more than other gas plants in the Company's fleet because Harrington is an inefficient steam-cycle plant with poor heat rates, meaning not only higher fuel costs, but higher CO<sub>2</sub> emission per megawatt-hour of electricity.<sup>59</sup>

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<sup>58</sup> PFD ¶ 51.

<sup>59</sup> Sierra Club Ex. 1, Direct Testimony of Devi Glick at 29-30.

The PFD also ignored impending environmental compliance costs that 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 that contribute to harmful ozone pollution and impaired air quality in national parks. As SPS concedes, the Harrington units have no pollution controls for nitrogen oxides,<sup>60</sup> yet the Company assumed 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. Under the Clean Air Act's Regional Haze Rule or EPA's recently-proposed Good Neighbor Rule, Unit 1 could be required to install selective catalytic reduction pollution controls, or procure pollution credits, which could cost as much as \$20-30 million per unit<sup>61</sup>—costs that could be avoided with the retirement of Unit 1. Yet the PFD ignores that risk.

The PFD also ignores the environmental and public health impacts of converting all three Harrington units to burn gas. It is true that burning natural gas reduces emissions relative to coal, but burning gas will still contribute to carbon pollution and is a significant source of harmful air pollution. Retiring one of the Harrington units would mitigate at least some of those environmental and public health impacts, and the ALJs erred in arbitrarily ignoring those qualitative considerations.

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<sup>60</sup> Tr. 132: 14-18.

<sup>61</sup> Tr. 135.

## CONCLUSION

SPS's own analyses and the Independent Evaluator's report make clear that retiring one of the Harrington units is "best," least-cost option for ratepayers, and would save millions of dollars in unnecessary costs.<sup>62</sup> The Company's analyses further demonstrate that the converted Unit 1 will seldom (if ever) run.<sup>63</sup> Moreover, converting only two of the three units would in no way undermine reliability, and would greatly decrease the risk of burdening ratepayers with the potential stranded costs—not to mention significant public health effects—of converting a unit that will very likely be obsolete in just a few years. Moreover, SPS would still retain optionality to convert the third unit should SPS actually need the generating capacity in the future. 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 "on the hook" for those costs. Even if a difference of \$5 million is of no consequence to the Company, the Commission should not impose it on SPS's captive ratepayers when it is doubtful the converted unit will ever operate.

Alternatively, and in light of significant changes in governing federal law and factual assumptions underlying SPS's proposed conversion, the Commission should remand the Proposal for Decision and direct the ALJs to reconsider the implications of the recently-enacted Inflation Reduction Act. The new law directs nearly \$400 billion in tax credits and direct spending to fund clean energy investments, and will have significant implications for the economics of SPS's proposed conversion. SPS and the Commission have an obligation to prudently respond to those changed circumstances, and the Commission should not approve the

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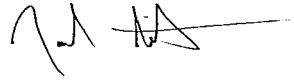
<sup>62</sup> SPS Ex. 10, Direct Testimony of D. Dean Koujak, Attach. DDK-1 at 14 of 16.

<sup>63</sup> Sierra Club Ex. 1, Direct Testimony of Devi Glick at 24.

multi-million-dollar conversion of the Harrington units without confirming that it is, in light of the significantly changed federal law, the least-cost option for meeting customer need.

Dated this 18th day of August, 2022.

Respectfully submitted,

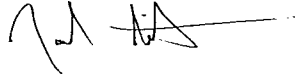
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### **CERTIFICATE OF SERVICE**

I, Joshua Smith, certify that a copy of the foregoing Sierra Club submission was served upon all parties of record in this proceeding on August 18, 2022, by electronic mail, as permitted by the presiding officer.

A handwritten signature in black ink, appearing to read 'Joshua Smith', is written above a horizontal line.

Joshua Smith  
Sierra Club Environmental Law Program