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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**

REBUTTAL TESTIMONY
of
D. DEAN KOUJAK

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

(*Filename*: KoujakRebuttal.docx; *Total Pages*: 20)

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
AXM	Alliance of Xcel Municipalities
CCN	Certificate of Convenience and Necessity
Harrington	Harrington Generating Station
IE	Independent Evaluator
MW	megawatt
PVRR	present value revenue requirement
Report or IE Report	Independent Evaluator's Report on Southwestern Public Service Company's Analysis of Harrington Options
RFI	Request for Information
RFP	Request for Proposal
RTO	regional transmission organization
SPS	Southwestern Public Service Company, a New Mexico corporation
Tolk	Tolk Generation Station

REBUTTAL TESTIMONY

OF
D. DEAN KOUJAK

I. WITNESS IDENTIFICATION

Q. Please state your name and business address.

A. My name is D. Dean Koujak. My business address is 1411 Broadway 35th Floor, New York, New York 10018.

Q. By whom are you employed and in what position?

A. Since late September 2021, I have been employed by Charles River Associates as a Principal in the Energy Practice. Prior to that time, I was employed by Guidehouse as a Director in the Energy, Sustainability, and Infrastructure practice, during which time I served as the Independent Evaluator for Southwestern Public Service Company, a New Mexico corporation ("SPS"), overseeing the Harrington Analysis and related Request for Information ("RFI") issued in September 2020.

Q. On whose behalf are you testifying in this docket?

A. I am testifying on behalf of SPS, a wholly-owned electric utility subsidiary of Xcel Energy Inc.

Q. Are you the same D. Dean Koujak who filed direct testimony on behalf of SPS in this docket?

A. Yes.

II. SUMMARY OF TESTIMONY

Q. What is the scope of your rebuttal testimony?

A. My rebuttal testimony responds to certain issues raised and recommendations proposed by the following Intervenor witnesses:

- Scott Norwood, who testifies on behalf of the Alliance of Xcel Municipalities ("AXM"); and
- Devi Glick, who testifies on behalf of the Sierra Club.

Q. Please summarize your rebuttal testimony and overall recommendations in this case.

A. My rebuttal testimony explains why I disagree with Mr. Norwood's conclusion that conversion of all three units at the Harrington Generating Station ("Harrington") to gas is not the best option available at this time, and that SPS should pursue a more substantial project that would require new combustion turbines. In my view, there are cost-benefit considerations, feasibility, and other real-world issues that SPS must take into account in seeking approval to amend its certificate of convenience and necessity ("CCN") to convert all three Harrington units to operate on natural gas, which Mr. Norwood does not address. I also address the conclusions Mr. Norwood and Ms. Glick reach based on my assessment of the replacement scenarios addressed in the Independent Evaluator's ("IE") Report on Southwestern Public Service Company's Analysis of Harrington Options ("Report") attached to my direct testimony. Additionally, I discuss the strength of SPS's RFI process, why using an RFI was appropriate, and address whether undergoing a new competitive bid process would produce any new replacement options for coal-fired Harrington units that should be considered.

III. INTERPRETING SPS'S MODELING RESULTS

Q. Please summarize the conclusions in your Report related to SPS's EnCompass modeling results, which Mr. Norwood and Ms. Glick address in their direct testimonies.

A. Attachment DDK-1 to my direct testimony is the IE Report of SPS's analysis of the Harrington replacement options. In section 5 of my Report, I summarize the results of the economic modeling SPS performed related to Harrington. The results show that the net present value revenue requirement ("PVRR") difference under the base case assumption between converting all units (Scenario 2) compared to the PVRR for converting two units and retiring one unit (Scenario 6) is $5 million. To put that in perspective, the modeling shows that converting two units and retiring one unit costs $5 million less than converting all three units over a 20-year period. That $5 million difference in cost equates to approximately only $250,000 per year (Present Value) over the 20-year period in the modeling. Because the economic modeling results are so close, I explained that "the decision to convert the Harrington station partially or fully should carefully consider other qualitative factors and optionality."[1]

Q. Please explain what you mean by "qualitative factors and optionality."

A. Qualitative factors include real-world reliability issues that are not accurately captured in economic modeling, including voltage and transmission support benefits, and the longer-term economic value of maintaining SPS's interconnection rights of up to 1,050 megawatts ("MW") at Harrington. These are issues SPS

[1] Koujak Direct at Att. DDK-1 at 13.

witnesses Ben R. Elsey and William A. Grant address in their direct testimonies. Specifically, an issue of importance is how the units are operated today, which includes serving a reliability-based function that is not necessarily captured in the modeling results that focus on selecting the least-cost, economic dispatch option. Because the economic results of the analysis are very close, I could reasonably foresee real-world economic value for the scenario in which all three units are converted to natural gas that could easily eclipse the very small economic gap between that scenario and converting only two units. I noted this issue on page 15 of 16 in the IE Report.

Q. Do you agree with Mr. Norwood's position that Scenarios 1, 2, 5, and 6 are "essentially equal" due to the proximity of the economic modeling results for each scenario[2]?

A. No. Considering quantitative (economic) and qualitative issues together, converting all three Harrington Units to gas can be deemed the prudent path forward because the potential upside of full conversion is likely significant in comparison to a two-unit conversion. There are economic impacts that are not factored into the economic modeling, because no software solution can independently predict every emergency situation or locational reliability constraint that could cause the third unit to operate. The relatively small economic modeling gap between converting all three units compared to only two can be viewed as a cost-effective and reasonable investment that guards against the higher cost of replacement energy and capacity. Given the relatively low incremental cost to make that investment

[2] Norwood Direct at 12-13, 15. Scenario 1 is Retire/Replace All. Scenario 2 is Convert All to Natural Gas. Scenario 5 is Retire 2 Units/Convert 1 Unit. Scenario 6 is Retire 1 Unit/Convert 2 Units.

related to converting the third unit, my view, as noted in the Report, is that full conversion can be deemed the prudent path forward. In this case, costs alone do not indicate the optimal replacement solution. The economic cost of a particular scenario is one of the important factors SPS must consider, among others, which I noted above.

Q. Can you elaborate on other factors that should be considered?

A. Yes. Feasibility and optionality are two important factors to consider. For example, converting all three units (Scenario 2) puts SPS in a better position to meet its capacity needs and not fall below the required 12% reserve margin in the Southwest Power Pool. In contrast, in Scenarios 1 (Retire/Replace All Units), 5 (Retire 2 Units/Convert 1 Unit), and 6 (Retire 1 Unit/Convert 2 Units), SPS would need to immediately procure replacement resources for anywhere between 340 MW if one unit is retired and 1,050 MW if all three units are retired. Based on the response to the RFI, I would have concerns about whether the market is able to provide adequate replacement capacity and in time to replace the retired coal operations at Harrington by the end of 2024, while doing so at a reasonable economic cost if any or all of the units are retired. From my experience, responses to RFIs are usually a venue for respondents to put their best foot forward in terms of pricing. In this case, as modelled, SPS does not have a more economical solution for the necessary capacity resources than full conversion. This indicates that the costs of replacing that capacity by procuring resources in the market are higher than the cost of converting the Harrington units to operate on natural gas, and depending on the actual market response, could be even higher than the modelled costs. There

is a low incremental cost to convert the third unit and retain 340 MW of capacity. Upon review and confirmation, the pipeline as specified could serve either two or three units. There are no additional pipeline costs for converting all three units.

Q. Are there other challenges Mr. Norwood does not acknowledge related to retiring and replacing all Harrington units and installing new combustion turbines?

A. Yes. Mr. Norwood does not quantify the cost of new combustion turbines, which could easily cost hundreds of millions of dollars, and new combustion turbines would still require a new pipeline to operate on natural gas. In addition, this is an unprecedented time in terms of supply chain disruption. Developers are having significant challenges pricing equipment in the present inflationary environment and procuring the equipment given the lack of critical components, which impacts available supply. The greater the complexity of a project, the more likely it will incur significant cost overruns and delay. It is for these reasons I disagree with the assertion that accelerating the in-service dates of new combustion turbines at Harrington is "economically feasible." With that said, however, the optionality to repower Harrington to a series of combustion turbines in the future is retained if it becomes more economic to do so.

Q. Are there advantages to converting all three Harrington units to operate on natural gas compared to retiring one, two, or three of the units that Mr. Norwood does not acknowledge?[3]

A. Yes. In addition to the cost-effectiveness of converting all three units, a full conversion also provides a seamless way for SPS to maintain the 1,050 MW of capacity it currently has at Harrington. Mr. Norwood agrees that SPS has a need for the full 1,050 MW.[4]

In addition, converting all three units allows SPS to maintain its existing interconnection rights. If SPS was required to retire even one unit, it could be forced to relinquish approximately 340 MW of interconnection rights. Regaining those interconnection rights would be costly and time-consuming due to the backlogged Southwest Power Pool process for approving new projects (addressed by Mr. Elsey in detail in his direct testimony). In addition, giving up those interconnection rights would limit SPS's ability to co-locate renewable resources like wind or solar at Harrington in the future. Full conversion provides SPS with needed capacity through the gas-fired units and preserves SPS's flexibility to have renewable resources at the same site.

Finally, converting all three units entails a straight-forward construction and retrofitting process because the boilers at Harrington are already equipped to run on natural gas and require very little investment to convert them to natural gas

[3] Norwood Direct at 12-13, 15. Scenario 1 is Retire/Replace All. Scenario 2 is Convert All to Natural Gas. Scenario 5 is Retire 2 Units/Convert 1 Unit. Scenario 6 is Retire 1 Unit/Convert 2 Units.

[4] Norwood Direct at 10.

operations. In addition, constructing a new pipeline is feasible by the end of 2024 and cost-effective compared to the alternatives.

Q. Please explain what you mean by "interconnection rights."

A. Interconnection rights are effectively the right by an electric generation capacity resource to generate and inject up to a certain volume of electricity into a transmission system at a given location, known as the point of interconnection, as authorized and administered by the regional transmission organization ("RTO") under a process approved by the Federal Energy Regulatory Commission. In this case, the RTO is Southwest Power Pool.

Q. In advocating for retirement of one or all three Harrington units, do Ms. Glick or Mr. Norwood acknowledge the importance of SPS maintaining existing interconnection rights?

A. Mr. Norwood discusses the importance of using the existing transmission infrastructure at Harrington, but as far as I can tell, does not acknowledge the potential transmission system upgrade costs that SPS would have to incur if it relinquished the 340 to 1,050 MW capacity at Harrington, but later required that capacity. As noted in my previous testimony, these are costs beyond the physical attachment facilities needed to connect the generating capacity resource to the transmission grid. Rather, these are costs to upgrade the transmission grid that are required to accommodate new interconnecting generation that does not already have interconnection rights. I understand that Mr. Elsey and Mr. Grant addressed this issue specifically in their direct testimonies.

It is hard to specifically quantify the importance of SPS's interconnection rights, but there is no doubt those rights are becoming increasingly valuable because the cost of accommodating new-build resources onto the Southwest Power Pool system is increasing substantially. In addition, customers have already been paying for the existing Harrington units and the related interconnection rights. As an IE, the primary lens through which I evaluate options is from a customer perspective. Accordingly, as part of the review of the replacement options, I would seek to preserve the existing value of assets, the cost of which has been borne by customers over time. If any of the Harrington units cease operation, the benefit of those interconnection rights, which customers have been funding, could be relinquished. In addition, any new asset that SPS requires in the future will need to be connected to the Southwest Power Pool system, so those interconnection rights become a new, incremental cost for the next generation unit SPS adds to its fleet. These costs are avoided, however, if SPS is permitted to convert all three units to natural gas and fully retain the existing interconnection rights for the 1,050 MW at Harrington. In my view, retaining such interconnection rights on behalf of customers is a prudent action by utilities.

Q. Do you agree with Ms. Glick's claim that your review confirms that retiring at least one Harrington unit is the best option for ratepayers[5]?

A. No. In my Report, I stated that the two leading options on an economic basis were the full gas conversion and the two-unit gas conversion scenarios. Under the two-unit gas conversion scenario, one unit is retired. What Ms. Glick does not

[5] Glick Direct at 8.

acknowledge is the conclusion of my Report, in which I note that the economic results were proximate to each other, and either scenario can be deemed a prudent path forward. I did not ultimately conclude that retiring one unit is the best option. However, I did note that not converting the unit fully at the outset would make it impractical to do so in the future, and that other qualitative factors and optionality should be considered. Such factors should include the unquantifiable, but known to be significant, loss in value of holding the interconnection rights, and the added reliability of having a third unit available. Maintaining the full interconnection right would also enable SPS to consider colocation of renewable generation, such as solar, at Harrington.

IV. REASONABLENESS OF RFI

Q. What topic do you discuss in this section of your testimony?

A. Mr. Norwood, on behalf of AXM, casts doubt on whether SPS's RFI process was robust and designed to generate a wide range of bids.[6] In this section of my rebuttal testimony, I explain that SPS's RFI was successful in terms of the response it generated, which shows Mr. Norwood's concerns are unfounded. In addition, I indicate why the RFI, as designed, reasonably solicited all replacement capacity options for SPS's coal-fired units, including Harrington. I also discuss why an RFI process is appropriate in this circumstance, and the distinction and likely result of issuing a new Request for Proposal ("RFP"). I also respond to Mr. Norwood's and Ms. Glick's recommendations that SPS be required to issue a new competitive bid process or RFP.[7]

Q. Do you agree with Mr. Norwood that SPS's 2020 RFI may not have generated interest from parties with planned resources located in the vicinity of Harrington[8]?

A. No. First, Mr. Norwood claims the RFI may not have been effective because it was initially issued to obtain information related to replacing SPS's Tolk Generation Station ("Tolk") coal-fired assets. That is not accurate. The RFI was designed to seek bids for replacements for *all* of SPS's coal-fired generation, including Harrington, and this was clearly noted in the RFI given the number of MWs

[6] Norwood Direct at 8-9.
[7] Glick Direct at 9; Norwood Direct at 17-18.
[8] Norwood Direct at 8-9.

(approximately 2,200 MW) for which SPS was seeking replacement options. Second, RFIs in general are designed with a low bar to participation to allow any and all interested bidders an opportunity to submit a response. This particular RFI had a low bar to participation coupled with a relatively low burden of responding, the intent of which was to generate a thorough and broad response. In my experience, project developers who are active in any power pool and market are diligent in finding an entity that would have an interest in purchasing any power or resource the developer may have to offer. Accordingly, developers would be highly motivated to participate in any utility solicitation, including an RFI like the one SPS issued in September 2020. It is my opinion that almost all developers would have participated in this RFI if they had a viable project to offer. Bidders are aware that failure to participate in an RFI would deprive the utility of information necessary to determine the best path forward, including whether to issue a more formal RFP that would be suitable for the project that the developer could have offered in the RFI. Finally, Mr. Norwood doubts whether parties with planned resources located near Harrington would have responded to the RFI. Again, based on my experience, it is reasonable to conclude that all developers with viable projects, especially those who have a resource already near the site of the existing generation, would have participated. In addition, the Tolk and Harrington facilities are within 100 miles of each other, and both located in Texas, so it is unlikely that a resource that was available for Harrington only would not have responded to the RFI.

Q. Does SPS have adequate time to conduct a new competitive bid process as Mr. Norwood suggests and still meet the requirement to retire coal operations at Harrington by the end of 2024 and replace that existing capacity?

A. No and doing so is not necessary. First, I believe Mr. Norwood makes this recommendation in the context of hoping there is a resource in the market that could be located at Harrington and provide the replacement capacity SPS needs.[9] If such a resource existed, a developer would have provided a bid in response to the RFI. It is also important to keep in mind that a new and different resource in the market, if it existed, would be much more costly than constructing a pipeline to operate existing units at Harrington using natural gas and likely would be challenged by the Southwest Power Pool interconnection backlog and transmission upgrade needs. In addition, Mr. Norwood refers to soliciting "binding bids for replacement resources," which is another way of describing an RFP. An RFP is not necessary or even advisable in this situation. RFPs are to be used when there is a firm requirement that needs to be met, after appropriate studies. They should not be used for price discovery or study purposes. Conversely, RFIs are appropriate for price discovery because they require no binding commitment and have a low burden of participation. SPS would have initiated an RFP if it identified a viable alternative resource in the market following the RFI. However, having received none, and given the limited time remaining, it would be unlikely, if not impossible, for any new resource to be able to navigate through the Southwest Power Pool interconnection queue. When there is not an interconnection logjam, minimum

[9] Norwood Direct at 9.

procurement timeframe for commercial operation, particularly for larger-sized generation, is approximately four years.

Q. Why do you think a binding bid is a reference to an RFP?

A. For a utility, an RFP is a formal process that is designed to result in a contract between the utility and a market participant for the construction or operation of new generating units, either through a power purchase agreement or a transfer of ownership.

Q. Is it problematic that the RFI did not require a binding commitment from bidders?

A. No. Asking for a binding commitment does not necessarily increase the response to a solicitation. It may unintentionally restrict the ability of bidders to respond by constraining the time period for which replacement capacity is needed. The RFI allowed bidders to indicate which Commercial Operation Date dates are feasible, and SPS in turn was able to evaluate options to accommodate those resources.

Q. Why do you think it is not necessary for SPS to issue a new RFI, an RFP, or engage in a competitive bid process despite Mr. Norwood's and Ms. Glick's positions?

A. Issuing a new RFI, RFP, or undergoing a competitive bid process would cause unnecessary delay and is not likely to identify a cost-effective replacement resource that can be interconnected by January 1, 2025. The September 2020 RFI SPS issued was designed to solicit bids from a wide range of bidders for a wide range of projects. The RFI was not limited to specific technologies or geographical regions. I understand that at times, it may seem that updating an RFI or undergoing

a new competitive bid process would generate new projects or results. That is simply not the case because of the constraints that exist in the Southwest Power Pool and the long lead times that are associated with development of new generation. For example, the Southwest Power Pool is currently evaluating projects that were submitted five years ago, which Mr. Elsey addresses in his direct testimony.

With this in mind, and with the perspective of having overseen the response to the recent RFI, the analysis conducted by SPS included the evaluation of an existing resource that is presently available and can meet its capacity and other related reliability needs: converting all three Harrington units to operate on natural gas. It can be very beneficial for a utility to be in a situation where it has access to an existing, cost-effective resource that can meet the need it has. It is consistent with industry standards to analyze an existing resource to maximize the existing life of the facility to try to extract all of its remaining value. When that occurs, the utility should evaluate whether that existing resource is more feasible, cost-effective, or otherwise preferable compared to other options in the market. That is precisely what SPS was able to do after obtaining bids through the RFI process. The RFI process and SPS's economic modeling and related analysis confirmed that there are several reasons conversion of the Harrington units to operate on natural gas is the best option for replacing the existing coal-fired generation.

Q. If the Commission approves SPS's request to convert all three units, should SPS be required to issue an RFP after the Commission's Final Order, as Mr. Norwood suggests?

A. No. It would not be logical to issue an RFP after the Commission grants SPS approval to convert all three Harrington units to operate on natural gas. As Mr. Norwood acknowledges, an RFP would result in binding bids to provide replacement generating resources that could supply the capacity and reliability needs of the existing units.[10] As I already noted, however, a bidder in an RFP ultimately expects to enter into a contract with the utility for the new resources. If the Commission approves SPS's CCN amendment, it will not need to contract with a third-party for new resources, making a new RFP unnecessary and a waste of SPS and potential bidder resources. In addition, I explained previously that an RFP is unlikely to identify additional resources that can economically and feasibly replace the capacity of the Harrington units in a timely manner.

Q. Does this conclude your pre-filed rebuttal testimony?

A. Yes.

[10] Norwood Direct at 17.

AFFIDAVIT

STATE OF NEW YORK)
)
COUNTY OF WESTCHESTER)

D. DEAN KOUJAK first being sworn on his oath, states:

I am the witness identified in the preceding rebuttal testimony. I have read the testimony and the accompanying attachment(s) and am familiar with the contents. Based upon my personal knowledge, the facts stated in the testimony are true. In addition, in my judgment and based upon my professional experience, the opinions and conclusions stated in the testimony are true, valid, and accurate.

D. DEAN KOUJAK

Subscribed and sworn to before me this 12 day of April, 2022 by D. DEAN KOUJAK

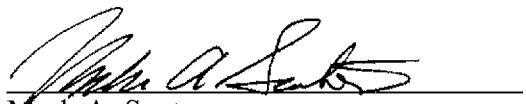
JOSEPH ARCHINA
Notary Public, State of New York
No. 01AR6034577
Qualified in Westchester County
Exp. Date: 12/13/25

Notary Public, State of New York

My Commission Expires: 12/13/25

CERTIFICATE OF SERVICE

I certify that, unless otherwise ordered by the presiding officer, notice of the filing of this document was provided to all parties of record via electronic mail on April 13, 2022, in accordance with the Order Suspending Rules, issued in Project No. 50664.



Mark A. Santos