BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

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 AND ABANDON ITS TOLK GENERATING STATION UNITS AND (3) OTHER RELATED RELIEF	**CASE NO. 19-00170-UT**

TESTIMONY OF DEVI GLICK IN SUPPORT OF UNCONTESTED COMPREHENSIVE STIPULATION

ON BEHALF OF SIERRA CLUB

January 21, 2019

1. INTRODUCTION

Q Please state your name and occupation.

A My name is Devi Glick. I am a Senior Associate at Synapse Energy Economics, Inc. My business address is 485 Massachusetts Avenue, Suite 3, Cambridge, Massachusetts 02139.

Q Please describe Synapse Energy Economics.

A Synapse is a research and consulting firm specializing in energy and environmental issues, including electric generation, transmission and distribution system reliability, ratemaking and rate design, electric industry restructuring and market power, electricity market prices, stranded costs, efficiency, renewable energy, environmental quality, and nuclear power.

Synapse's clients include state consumer advocates, public utilities commission staff, attorneys general, environmental organizations, federal government agencies, and utilities.

Q Please summarize your work experience and educational background.

A At Synapse, I conduct economic analysis and write testimony and publications that focus on a variety of issues related to electric utilities. These issues include, non-exhaustively, power plant economics, utility resource planning practices, valuation of distributed energy resources, and utility handling of coal combustion residuals waste. I have submitted expert testimony on plant economics, utility resource needs, and solar valuation in the states of Connecticut, Virginia, North Carolina, South Carolina, and Florida. I authored a report on replacement analysis for the San Juan Generating Station in northwestern New Mexico. In the course of my work, I develop in-house models and perform analysis using industry-standard models.

Prior to joining Synapse, I worked at Rocky Mountain Institute, focusing on a wide range of energy and electricity issues. I have a master's degree in public policy and a master's degree in environmental science from the University of Michigan, as well as a bachelor's degree in environmental studies from Middlebury College. I have more than seven years of professional experience as a consultant, researcher, and analyst. A copy of my current resume is attached as Exhibit DG-1 to my Direct Testimony in this proceeding.

Q On whose behalf are you submitting this testimony?

A I am testifying on behalf of Sierra Club.

Q Who is Sierra Club?

Founded in 1892, Sierra Club is the nation's oldest grassroots environmental advocacy organization, with more than 778,000 members nationwide, including more than 9,000 members in New Mexico and 27,000 in Texas, some of whom reside within Southwest Public Service Company's ("SPS") service territory. One of Sierra Club's priority national conservation campaigns involves promoting cost-effective renewable energy generation resources as alternatives to increasingly expensive fossil-fuel generation sources that emit harmful pollutants into the air and water. To that end, Sierra Club regularly participates in federal, state, and administrative and public utility commission proceedings across the country, including New Mexico, to advocate for energy and public utility commission policies and outcomes that encourage economic renewable energy and energy efficiency investments that will produce safe and sustainable jobs, while also reducing electric system costs for both utilities and ratepayers and reducing emissions from fossil fuel energy sources.

2. RECOMMENDATION IN SUPPORT OF UNANIMOUS STIPULATION

Q What is the purpose of this testimony?

A I submit this testimony in support of the Uncontested Comprehensive Stipulation ("Comprehensive Stipulation") filed in this case on January 15, 2020—in particular Section II, which focuses on the Tolk Generating Station.

Q Are you addressing any other aspects of the Comprehensive Stipulation in this testimony?

A No.

Q Please describe SPS's request in its rate case application regarding the Tolk Generating Station.

A SPS's application sought approval to retire and abandon both units at Tolk Generating Station in 2032, and to modify the depreciation dates for those units accordingly. The application also described SPS's plan to operate the Tolk units on a seasonal basis (approximately June through September) starting in 2020,[1] and to install synchronous condensers at the facility for voltage support during the non-peak period of the year.

Q How does the Comprehensive Stipulation address SPS's request?

A The Comprehensive Stipulation includes three elements associated with the end of life for the Tolk units. First, it establishes that the date of abandonment and retirement for generating purposes will be December 31, 2032.

Second, SPS must submit, by June 2021, a robust retirement analysis that identifies the optimal retirement date for the Tolk units and potential means of replacement (the "Tolk Analysis"). This analysis will be reviewed by an independent evaluator and incorporated

[1] *E.g.*, Direct Testimony of W. Grant on Behalf of SPS at 8.

in SPS's 2021 Integrated Resource Plan ("IRP"). The Tolk Analysis will evaluate replacement resources priced based on a request for proposal ("RFP") or request for information ("RFI") process, and the value of reselling the water rights. In addition, SPS shall hold two technical conferences to solicit feedback on the basic parameters of its analysis and the preliminary conclusions of its analysis, respectively. SPS also commits to running at least one scenario in its 2021 IRP in which all of SPS's coal-burning units, including those of the Harrington Generating Station, are retired or replaced before 2030. Moreover, nothing in the agreement precludes Sierra Club or other parties from seeking an earlier retirement date for Tolk (or any of SPS's coal-burning units) in future proceedings based on the Tolk Analysis or other facts.

Third and finally, for the purposes of SPS's current rate change, Tolk's depreciation rates will be made consistent with a December 31, 2032, retirement date, in a two-step process. In the current rate case, Tolk depreciation will be calculated based on a remaining useful life through December 31, 2037, which constitutes approximately half of the increase in depreciation rates. All signatories to the Comprehensive Stipulation have agreed not to oppose the full application of depreciation rates associated with the 2032 abandonment date in SPS's next base rate case.

i. Tolk Retirement and Abandonment

Q Is the Comprehensive Stipulation, including its December 31, 2032, date for abandonment and retirement for generating purposes of Tolk, in the public interest?

Yes. As discussed below, the Company's own modeling demonstrates that it is not feasible to operate Tolk beyond 2032 because of the plant's limited water supply. Establishing December 31, 2032 as the plant retirement date in this case serves the public interest by making it clear for capital investment and resource planning purposes that the Tolk Plant cannot operate past that date.

We believe any new retirement date in advance of the Tolk units' respective current dates of 2042 and 2045 are improvements that will save ratepayers money, while also lessening

impacts on public health and the environment. Therefore, we find that the Comprehensive Stipulation is in the public interest, as it significantly accelerates the retirement date of the Tolk units; requires robust additional future analysis of retirement scenarios of SPS's coal-burning fleet that could later lead to earlier retirement/replacement of Tolk and/or Harrington; and achieves these results as a product of negotiation, compromise, settlement and accommodation among the parties to avoid continued litigation.

Q Are there reasons that SPS's current assumed life for Tolk is unrealistic?

A Yes. SPS cannot economically procure enough water to operate Tolk through the units' current respective retirement dates of 2042 and 2045. Tolk relies exclusively on groundwater from Ogallala Aquifer for generation cooling. However, as SPS's own testimony in this case emphasizes, the aquifer is in serious and irreversible decline.[2]

Q If the Comprehensive Stipulation does not require a retirement date even earlier than 2032, why does Sierra Club support it?

A We feel that advancing the units' dates from 2042 and 2045, respectively, to 2032, will provide value to ratepayers, in addition to reducing impacts on public health and the environment. While Sierra Club continues to believe that a retirement date prior to 2032 would be in the best interest of ratepayers, we find that the stipulated retirement date is an incremental improvement and reasonable outcome. As described below, in the Comprehensive Stipulation, the Company has committed to conducting a full, robust retirement analysis for Tolk between this case and the 2021 IRP, which could lead to a later decision to retire Tolk earlier if shown to be prudent. Thus, the stipulation is consistent with the recommendations in my Direct Testimony.

[2] Direct Testimony of M. Lytal on Behalf of SPS, at 53.

ii. The Analysis of the Tolk and Harrington Power Plants

Q Please describe the Comprehensive Stipulation's requirement related to future analysis of Tolk and SPS's other coal generation assets.

A As noted, SPS has agreed to submit, by June 2021, a robust analysis of the economically optimal retirement date for the retirement of Tolk and potential means of replacement (the "Tolk Analysis"), which will be reviewed by an independent evaluator and incorporated in SPS's 2021 IRP. The Tolk Analysis will evaluate replacement resources priced based on an RFP or RFI process, and include the value of reselling the water rights. In addition, SPS shall hold two technical conferences to solicit feedback on the basic parameters of its analysis and the preliminary conclusions of its analysis, respectively. SPS also commits to running at least one scenario in which all of SPS's coal-burning units are retired or replaced before 2030. Moreover, nothing in the Comprehensive Stipulation precludes Sierra Club or other parties from seeking an earlier retirement date for any of SPS's coal units, including the Harrington units, in future proceedings.

The Tolk Analysis that SPS commits to perform as part of the 2021 IRP will include robust evaluation of a range of retirement dates and alternative resource options. That modeling, if performed correctly, could answer the questions (or at least provide meaningful insight into the answer to the questions) of what is the least-cost set of resources to meet system and ratepayer needs from among the current portfolio of new and existing resources, and what is the least-cost manner of running and operating these resources.

Q How are the provisions of the Tolk Analysis beneficial?

A First, the Comprehensive Stipulation requires SPS to utilize an RFP or RFI process to obtain prices for potential replacement resources from developers interested in supplying such resources to SPS. The costs for solar, wind, and battery storage have been declining, and are to some extent location-dependent. While third-party reports and studies can be useful for understanding the range of pricing in the market, they can overstate the pricing

for what is actually available in specific regions. An RFP or RFI process, while limited in other ways, can be useful in obtaining pricing that reflects realistic and accurate current pricing for specific opportunities available to SPS.

Next, the requirement for an independent evaluator will help ensure that the analysis process is designed to answer the right questions, evaluate a reasonable range of retirement and replacement scenarios, and fairly assess alternatives.

The thorough Tolk Analysis will ensure timely acquisition of adequate, cost-effective, and reliable replacement resources.

Q Are there other reasons why it is in the public interest to conduct a further analysis of Tolk and Harrington?

A There have been large shifts in electricity markets since 2014–2015. These changes include the persistence of low natural gas prices, declining costs of renewables and storage, and minimal growth in electricity demand. The status of environmental regulations that could require large capital expenditures to comply has also changed. Additionally, the planned operational constraints at Tolk change the economics of operating the plant. Finally, neither Tolk nor Harrington is locked into a long-term coal contract that would pose a challenge to early retirement.[3]

Q Please summarize your recommendation with respect to the Tolk Analysis.

A It is in the public interest for SPS to conduct an updated and more comprehensive retirement analysis for both Tolk as part of the next IRP, as the Comprehensive Stipulation provides for in the Tolk Analysis. It is also in the public interest for SPS to thoroughly analyze and consider a scenario in which all of its coal-fired resources, including both Tolk and Harrington, are retired or replaced before 2030, which the Comprehensive Stipulation also secures.

[3] Direct Testimony of H.C.Romer on Behalf of SPS at 20.

This analysis should include updated peak demand and load forecasts, alternative resource costs based on an RFI or RFP process, and alternative operational options, specifically the possibility of seasonal operation of Harrington too. Further, it should incorporate sensitivities around the cost of all likely future additional environmental regulations. Additionally, the retirement analysis for Tolk should include scenarios that incorporate capacity de-rating based on future water availability constraints, and the potential revenue from selling the water to other parties.

iii. Tolk Depreciation

Q Was the depreciation schedule at Tolk within the scope of SPS's application in this proceeding?

A Yes. Depreciation schedules for existing plant balances are always at issue in rate cases because depreciation expense is part of the revenue requirement. SPS requested an adjustment of the depreciation schedule to align with the period during which Tolk would be used and useful. It is important to note that the 2037 retirement date suggested by the stipulated depreciation schedule relates to recovery of depreciation expenses, not operational retirement, and is distinct from the stipulation to retire generation operations in 2032.

Q How does the Comprehensive Stipulation address the depreciation issues?

A As noted above, Tolk's depreciation rates will be made consistent with a December 31, 2032, retirement date, in a two-step process. First, for the purposes of rates resulting from this case, Tolk depreciation will be calculated based on a remaining useful life through December 31, 2037, which constitutes approximately half of the increase in depreciation rates. Second, all signatories to the Comprehensive Stipulation have agreed not to oppose the full application of depreciation rates associated with the 2032 abandonment date in SPS's next base rate case.

It is important to align the depreciation schedule with a more realistic retirement date to appropriately balance ratepayer and shareholder interests. Given that Tolk is now

scheduled to retire in 2032—sooner than its current depreciation schedule—re-setting depreciation does several things: (1) protects the interests of utility shareholders by allowing recovery of plant assets during the useful life of the plant; (2) protects ratepayers by minimizing the risk of intertemporal cost shifting between current ratepayers who are continuing to receive power from the plant, and future ratepayers who would (absent the change in depreciation dates) be required to pay off undepreciated assets after the plant has stopped providing power; (3) protects ratepayers by diminishing the aggregate amount of return on ratebase that will be recovered through rates for the assets through the end of their lives.

That said, Sierra Club recognizes that immediately modifying the depreciation dates for Tolk Units 1 and 2 from 2042 and 2045, respectively, to 2032, and compressing the time period over which the plant balance is collected, may result in rate shock (an immediate and unexpected increase in rates). Rate shock can disproportionately affect lower-income customers and small businesses, who will see increased electricity bills. The Comprehensive Stipulation mitigates that potential rate shock with a phased implementation that seeks to balances the public's interest in avoiding rate shock and intertemporal inequity with the interest of shareholders in recovering the remaining balance at Tolk.

Q Does Sierra Club believe that the Comprehensive Stipulation, as a whole, is in the public interest?

A Yes. The Comprehensive Stipulation moves up the retirement date of Tolk to December 31, 2032, and requires robust retirement and alternatives modeling (that could lead to an even sooner retirement date). This will reduce costs to ratepayers and mitigate impacts on public health and the environment relative to the status quo. For these reasons, Sierra Club finds that the Comprehensive Stipulation, as a whole, is in the public interest.

Q Does this conclude your testimony?

Yes.

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SOUTHWESTERN PUBLIC SERVICE COMPANY,	)	
APPLICANT.	)	

VERIFICATION

STATE OF MASSACHUSETTS }
} ss.
COUNTY OF MIDDLESEX }

Devi Glick, first being sworn on her oath, states:

I am the witness identified in the preceding Direct Testimony in Support of the Uncontested Comprehensive Stipulation. I am the author of the testimony 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.

Devi Glick

SUBSCRIBED AND SWORN TO before me on this 15 day of January 2020 by Devi Glick.

Notary Public

My commission expires: 4/29/2022

JENNIFER MARUSIAK
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
April 29, 2022