



January 12, 2018

Chairman Thomas K. Chenal
Arizona Power Plant and Transmission Line Siting Committee
15 South 15th Avenue
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Re: Sierra Club Comments on the Application of Tucson Electric Power for Certificates of Environmental Compatibility for the RICE Generation Project (Docket L-00000C-17-0365-00177)

Chairman Chenal:

Sierra Club submits these comments urging the Arizona Power Plant and Transmission Line Siting Committee (“Committee”) to deny Tucson Electric Power’s Application for Certificates of Environmental Compatibility for the RICE Generation Project (“Application”). As the Committee reviews the Application in light of factors listed in Arizona Revised Statute 40-360.06, the Sierra Club urges the Committee to scrutinize the environmental impacts of the proposed project on local communities and the availability of cleaner, cost-effective alternatives. Arizona’s energy future should be renewable, efficient, healthy, safe, affordable, and equitable, and this project advances none of those goals.

1. The gas plant will expose nearby communities to unacceptable air pollution and resulting health impacts.

This project, if constructed, will have negative impacts on people living, studying, and working within the vicinity of the proposed site. The Committee is required to consider existing plans of entities in the vicinity of the proposed project, as well as the total environment of the area. The Application repeatedly cites that the proposed new facilities will result in fewer

emissions than the generation units previously on site.¹ In making this argument, TEP fails to grasp that the previous generating facilities produced unacceptable air impacts. TEP retired the previous generating facilities at the proposed project site because they were out of compliance with the Clean Air Act in 2013. The National Association for the Advancement of Colored People identified the Sundt Generating Station as 13th worst in the country under its environmental justice performance ranking.² Communities bordering the site of the proposed project have been subject to air pollution for long enough, and additional air quality impacts are acceptable, particularly when non-emitting alternatives exist.

In addition, the project would emit significant amounts of nitrogen oxide (“NOx”) emissions. The Application notes that the project would emit 39.4 tons per year (tpy) of NOx, just shy of the 40 tpy Clean Air Act’s major source threshold.³ NOx are a criteria pollutant and precursor to fine particulate matter and ozone. If the major source threshold were exceeded, then the NOx Best Available Control Technology emission rate would apply and require lower NOx emission rates. Breathing air with high concentrations of nitrogen oxides—even on over a short period—can aggravate asthma, prompting coughing, wheezing, and difficulty breathing.⁴ The U.S. Environmental Protection Agency has unequivocally stated that “[t]ogether, the collective evidence from epidemiologic, controlled human exposure, and toxicological studies is sufficient to conclude that *a causal relationship exists between short term exposures to PM2.5 and cardiovascular effects . . . and mortality.*”⁵ The health impacts of emissions are particularly pronounced with sensitive populations, including children and the elderly.

The Application noted only the nearby Los Niños Elementary School and Augie Acuña Los Niños Neighborhood Park just south of the project. However, the proposed project would be built within three miles of nine additional schools.⁶ We urge the Committee to consider the avoidable health impacts that this project would impose on students at these schools. These potential health impacts are particularly unacceptable given that non-emitting resources could perform the same electrical services.

¹ E.g., Application at 1, 3.

² National Association for the Advancement of Colored People, “Coal Blooded: Putting Profits Before People” (2016), available at <https://www.naacp.org/wp-content/uploads/2016/04/CoalBlooded.pdf>.

³ 40 CFR 51.166(b)(1) and (b)(23).

⁴ <https://www.epa.gov/no2-pollution/basic-information-about-no2#Effects>.

⁵ U.S. EPA, “*Integrated Science Assessment for Particulate Matter: Final Report*” (Dec. 2009).

⁶ Alta Vista High School, Billy Lane Lauffer Middle School, Craycroft Elementary School, Desert View High School, Esperanza Elementary School, Gallego Intermediate Fine Arts Magnet School, Sierra 2-8 School, Sunnyside High School, and Rivera Elementary School.

2. TEP should be pursuing efficient, renewable solutions to its power needs rather than building a new gas plant.

Efficient, renewable resources could regulate and balance TEP's electrical grid with fewer environmental impacts, as made clear by other Arizona projects. Arizona law requires the Committee to consider the estimated cost of the proposed facilities and site and the estimated cost of the facilities and sites, recognizing that any significant increase in costs represents a potential increase in the cost of electric energy to the customers. In this context, we note that renewable solutions may meet the same objectives at rapidly decreasing costs.

The Application claims that the RICE project will advance its goals to reach 30% renewables by 2030 and "help TEP regulate and balance its electrical grid to meet the changes in demand during peak energy usage."⁷ As the Committee considers the technical practicability of achieving TEP's stated objectives, it should be aware that these objectives could both be better met with a renewable alternative to the proposed project.

Arizona's own experience with renewable projects should make clear that cleaner, non-emitting resources could incorporate additional renewables without the environmental impact of the proposed project. Energy storage projects can offer additional capacity in addition to voltage regulation and power factor regulation needed to maintain grid reliability. A First Solar project in Tempe, Arizona demonstrated that utility-scale solar plants can provide the same grid-balancing reliability services that have historically been provided by fast-ramping gas plants.⁸ These services are frequently cited as necessary to incorporate variable renewable resources such as wind and solar, just as TEP cites in its Application. However, with advanced power controls like those installed on the First Solar project, renewable resources could provide the same types of services that TEP seeks in this proposed project.

Peak energy demand could be met with any renewable resource that is generating electricity during peak load conditions. Daylight shines in Tucson throughout TEP's peak summer peak hours of 3-7pm, suggesting that solar resources could produce electricity to meet peak demand.⁹ Energy storage systems could further expand the amount of electricity produced

⁷ Application at 1.

⁸ California Independent System Operator, "Using Renewables to Operate a Low-Carbon Grid" (Dec. 2016), available at <https://www.aiso.com/Documents/UsingRenewablesToOperateLow-CarbonGrid.pdf>.

⁹ <https://www.tep.com/peak-demand/>.

to meet peak demand conditions by offering additional capacity outside of the times that renewables are generating power.

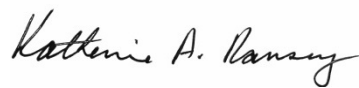
Furthermore, the costs of developing renewable projects—particularly solar or wind plus storage projects—are rapidly decreasing, showing that TEP and its customers could benefit from unprecedented low prices of renewable alternatives. Arizona Public Service famously demonstrated last year that energy storage at its Punkin Center would meet local grid needs for less than the cost of a transmission upgrade.¹⁰ TEP’s own contract with NextEra Energy Resources sent waves through the electricity market with its low cost for solar-plus-storage facilities.¹¹ Just last week, an energy solicitation in Colorado yielded bids for solar-plus-storage projects that were far lower with an *average* bid of \$36/MWh, 20% lower than TEP’s contract.¹² That average bid price means that more than half of the bids that Xcel received were below that price. This is strong evidence that the estimated cost of the proposed project may be too high given the renewable alternatives available in the market.

For the reasons cited above, we urge the Committee to deny the Application and decline to issue certificates of environmental compatibility.

Conclusion

Thank you for the opportunity to submit these comments. We look forward to working with the Commission to address these matters.

Respectfully submitted,



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¹⁰ Spector, Julian, “APS Buys Energy Storage from AES for Less Than Half the Cost of a Transmission Upgrade,” *Greentech Media* (Aug. 9, 2017).

¹¹ *BusinessWire*, “TEP to Power 21,000 Homes with New Solar Array for Historically Low Price” (May 22, 2017).

¹² Deign, Jason, “Xcel Attracts ‘Unprecedented’ Low Prices for Solar and Wind Paired with Storage,” *Greentech Media* (Jan. 8, 2018).

**BEFORE THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE**

In the matter of the Application of Tucson Electric Power Company (“TEP”), in Conformance with the Requirements of Arizona Revised Statutes §§ 40-360, et seq., for Certificates of Environmental Compatibility authorizing the construction of the Reciprocating Internal Combustion Engine Generation Project and the Irvington 138kV Transmission Line Relocation Project, including the installation of ten (10) modular approximately 20 MW reciprocating internal combustion engine generators and construction of approximately 2.2 miles of new 138kV transmission lines located within TEP’s Irvington Campus, Section 3, Township 15 South, Range 14 East, Pima County, Arizona.

Docket No. L- 00000C-17-0365-00177

Certificate of Service

I hereby certify that I have this day served the foregoing **SIERRA CLUB COMMENTS** by U.S. Mail to all parties of record in the proceeding listed below.

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Dated at Oakland, California, this 12th day of January, 2018.

/s/ Ana Boyd

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