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Ashley Pilakowski
NEPA Compliance
400 W. Summit Hill Dr., WT 11D
Knoxville, TN 37902

Re: SACE Comments on Potential Paradise Fossil Plant Retirement Environmental Assessment

Dear Ms. Pilakowski:

On behalf of the Southern Alliance of Clean Energy (SACE), we submit these comments in response to the Tennessee Valley Authority’s (TVA) draft Potential Paradise Fossil Plant Retirement Environmental Assessment (Draft EA). The power sector is in the midst of transformation, and we support the conclusion TVA has drawn that the region will experience economic and environmental benefits if the inflexible and unreliable Paradise Fossil Plant (PAF) is retired by 2020.

We have two disagreements with the analysis presented in the Draft EA:

1. Air quality impacts depend on replacement resources.
2. Economic impacts of alternative replacement resources were not considered.

Air quality impacts depend on replacement resources

The Draft EA characterizes the beneficial air quality impacts associated with the retirement of PAF as minor because it assumes PAF will be replaced primarily with gas generation. Air quality impacts depend on the replacement generation, as seen in Table 1.

Table 1. Air Quality Impacts of PAF Retirement by Replacement Resource^{1,2}

	Reduction in CO₂ Emissions	Health Benefits from PM_{2.5}, SO₂, and NO_x Reductions
Replace with NGCC	2.764 Million Metric Tons	\$253-778 Million
Replace with EE & Renewables	4.377 Million Metric Tons	\$263-809 Million

Sources: Draft EA, [EPA Technical Support Document: Estimating the Benefit per Ton of Reducing PM_{2.5} Precursors from 17 Sectors, February 2018](#)

¹ TVA is considering retiring PAF early because it “has experienced flat to declining load” (Draft EA, page 1). Therefore, TVA would likely need to replace less than 100% of PAF’s generation. However, for consistency, we have estimated the range of air emissions impacts of replacing 100% of PAF’s generation with generation from an NGCC or with 100% energy efficiency and renewable generation.

² Calculations assume 4,467,017 MWh of annual generation, PAF’s actual generation in 2016, and emission rates listed on page 18 of the Draft EA.

Replacing PAF primarily with generation from gas resources results in beneficial air quality impacts, but replacing PAF with energy efficiency and renewable generation sources would provide an additional over 5 million metric tons of annual CO₂ reduction and \$10-31 million in health benefits from PM_{2.5}, SO₂, and NO_x emission reductions. Since these figures use the valuation of just some of the health benefits of just three of the seven pollutants avoided by retiring PAF, the monetary benefit brought to the region through improved air quality is likely much greater. Retiring PAF and replacing it with NGCC generation or with EE and renewables would be the equivalent of taking approximately 592,000 or 937,000 cars off the road each year, respectively.³

The air quality benefits of replacing PAF with energy efficiency and renewables would be more than minor. Air quality impacts should be presented as a range in the final EA to show how future replacement decisions can impact the environmental and economic impacts from retiring PAF.

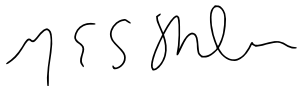
Economic impacts of alternative replacement resources were not considered

According to the Solar Foundation's 2017 Solar Jobs Census Kentucky had 1,293 jobs in the solar industry in 2017, an increase of 8% in 2017.⁴ Energy efficiency is an even greater job driver. Kentucky's 1st congressional district, which covers western Kentucky and includes Muhlenberg County, boasted 4,499 jobs in the energy efficiency industry in 2018.⁵ In addition to the promise to explore moving PAF 3 employees to other TVA jobs in their service area, TVA should also invest in energy efficiency and solar in Kentucky and add to these booming energy industries. Such investments by TVA could reverse and potentially outweigh any adverse economic impacts of retiring PAF.

Conclusion

The Draft EA, despite the critiques discussed above, already presents a case to retire PAF. Retiring PAF would have a measurable, positive economic and environmental impacts on the region for years to come.

Respectfully submitted,



Maggie Shober
Director of Power Market Analytics

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³ Passenger car CO₂ emission equivalent calculated using EPA's Greenhouse Gas Equivalencies calculator: Source: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

⁴ Solar Foundation, *Solar Jobs Census 2017 Fact Sheet: Kentucky*, <https://www.thesolarfoundation.org/solar-jobs-census-factsheet-2017-ky/>

⁵ E2, *Energy Efficiency Jobs in America: Kentucky Fact Sheet*, <https://www.e2.org/wp-content/uploads/2018/09/KENTUCKY-Dist.pdf>