

1.866.522.SACE  
www.cleanenergy.org

P.O. Box 1842  
Knoxville, TN 37901  
865.637.6055

46 Orchard Street  
Asheville, NC 28801  
828.254.6776

250 Arizona Avenue, NE  
Atlanta, GA 30307  
404.373.5832

P.O. Box 310  
Indian Rocks Beach, FL 33785  
954.295.5714

P.O. Box 13673  
Charleston, SC 29422  
843.225.2371

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

**Re: SACE Comments on Potential Bull Run 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 Bull Run 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 Bull Run Fossil Plant (BRF) is retired by 2023.

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

1. Air quality impacts depend on replacement resources.
2. Economic value of coal transport is minimal.
3. 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 BRF as minor because it assumes BRF will be replaced primarily with gas generation. Air quality impacts depend on how that generation is replaced, as seen in Table 1.

*Table 1. Air Quality Impacts of BRF Retirement by Replacement Resource<sup>1,2</sup>*

|   | <b>Reduction in CO<sub>2</sub> Emissions</b> | <b>Health Benefits from PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> Reductions</b> |
|---|--|---|
| <b>Replace with NGCC</b>                | 1.012 Million Metric Tons                    | \$29-90 Million   |
| <b>Replace with EE &amp; Renewables</b> | 1.722 Million Metric Tons                    | \$34-103 Million  |

Sources: Draft EA, [EPA Technical Support Document: Estimating the Benefit per Ton of Reducing PM<sub>2.5</sub> Precursors from 17 Sectors, February 2018](#)

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

<sup>2</sup> Calculations assume 1,967,008 MWh of annual generation, BRF’s actual generation in 2016, and emission rates listed on page 19 of the Draft EA.

Replacing BRF primarily with generation from gas resources results in beneficial air quality impacts, but replacing BRF with energy efficiency and renewable generation sources would provide another 710,000 metric tons of annual CO<sub>2</sub> reduction and \$4-14 million in health benefits from PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> 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 BRF, the monetary benefit brought to the region through improved air quality is likely much greater. Retiring BRF and replacing it with NGCC generation or with EE and renewables would be the equivalent of taking over 216,000 or nearly 370,000 cars off the road each year, respectively.<sup>3</sup>

The air quality benefits of replacing BRF 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 BRF.

### **Economic value of coal transport is minimal**

The Draft EA includes TVA's contract for coal in the socioeconomic impacts section, implying that the loss of the coal contract will negatively impact the regional economy. However, only a small portion of the contract stays in the region. The Draft EA states the entire coal contract is worth \$371,400-\$1.2 annually. If we assume that transportation costs are approximately 40% of the cost of coal for electric generation (as is typical), CSX's contract to transport coal to BRF is likely on the range of \$148,000-\$480,000 each year. Not all of that contract stays in the region. Nearly a third goes to CSX's shareholders.<sup>4</sup> Assuming 68% of the contract stays in the region (though likely less), the BRF transportation contract brings a maximum of only \$101,000-\$326,000 to the region each year. That represents 0.0004% to 0.0012% of the 2015 GDPs of the 9 affected counties identified by TVA in the Draft EA.<sup>5</sup> The loss of this contract is negligible to the regional economy.

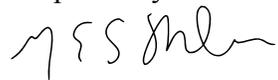
### **Economic impacts of alternative replacement resources were not considered**

According to the Solar Foundation's 2017 Solar Jobs Census Tennessee had 4,411 jobs in the solar industry in 2017, an increase of 24% in 2017.<sup>6</sup> Energy efficiency is an even greater job driver. Tennessee's 2<sup>nd</sup> and 3<sup>rd</sup> congressional districts, which cover Anderson County and Knoxville, boasted 12,700 jobs in the energy efficiency industry in 2018.<sup>7</sup> If TVA invests in energy efficiency and solar in eastern Tennessee to replace BRF it could reverse and potentially outweigh any adverse economic impacts of retiring BRF.

### **Conclusion**

The Draft EA, despite the critiques discussed above, already presents a case to retire BRF. Retiring BRF 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

On behalf of the Southern Alliance for Clean Energy

P.O. Box 1842

Knoxville, TN 37901

865-637-6055

<sup>3</sup> EPA GHG Equivalencies calculator: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

<sup>4</sup> Assuming the same percent goes to shareholders as the past 3 fiscal years shown in CSX's 2018 10k.

<sup>5</sup> County GDP estimates from USBEA, <https://www.bea.gov/data/gdp/gdp-county>

<sup>6</sup> *Solar Jobs Census 2017, Tennessee Fact Sheet*, <https://www.thesolarfoundation.org/solar-jobs-census-factsheet-2017-tn/>

<sup>7</sup> E2, *Energy Efficiency Jobs in America: Tennessee Fact Sheet*, <https://www.e2.org/wp-content/uploads/2018/09/TENNESSEE-Dist.pdf>