November 17, 2021

Via Electronic Mail to nepa@tva.gov
Brooke Davis
NEPA Compliance Specialist
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Dear Ms. Davis:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the Tennessee Valley Authority (TVA) Vonore Battery Energy Storage System and Associated Substation Draft Environmental Assessment (Draft EA). TVA is proposing to construct a Battery Energy Storage System (BESS) and associated substation pilot study project capable of generating 20 megawatts with a storage capacity of 40 megawatt hours. The project site would be located west of State Highway 72 in Vonore, Tennessee in Monroe County. The proposed 15-acre pilot study site would require an approximate ten-acre slab-on-grade pad for the BESS, its attendant features, and an associated new Vonore 161-(kilovolt) kV Substation. The BESS would be comprised of twelve containers to house the lithium-ion (Li-ion) batteries. Each container would be 40-feet-long by 10-feet-wide and 8-feet in height. To support the BESS pilot project, roughly one-half mile of new, all dielectric self-supporting fiber cable would need to be installed on the existing Fort Loudon to Alcoa No. 1 transmission line, just east of Friendsville, in Blount County, Tennessee. The Draft EA evaluates the following two alternatives, and the anticipated environmental impacts associated with the proposed BESS facility, substation, and fiber line upgrade:

- Alternative A: The No Action Alternative – Do Not Construct the BESS Facility, a New Substation, or Install the ADSS Fiber Upgrade
- Alternative B: The Action Alternative - Construct the BESS Facility, a New Substation, or Install the ADSS Fiber Upgrade

TDEC is the environmental and natural resource regulatory agency in Tennessee with delegated responsibility from the U.S. Environmental Protection Agency (EPA) to regulate sources of air pollution; solid and hazardous waste; radiological health issues; underground storage tanks; and water resources. TDEC has reviewed the Draft EA and has the following comments regarding the proposed action:

Solid Waste

During the course of construction and site operations, all materials determined to be wastes should be evaluated (e.g., waste determinations) and managed (e.g., inspections, container requirements, permitted transport, and disposal) in accordance with the Solid and Hazardous Wastes Rules and Regulations of the State (TDEC DSWM
Rule 0400 Chapters 11 and 12, respectively) in addition to other applicable TVA best management practices. TDEC recommends that the Final EA include reference to applicable state regulations.

Water Resources

As TVA notes in the Draft EA, a Construction Stormwater Permit (CGP) and a Surface Water Pollution Prevention Plan (SWPPP) will be required for the storage facility as it will disturb more than one acre of land. Construction of the ten-acre slab-on-grade pad will likely encounter sinkholes which may complicate its construction. The site is in the mature karst of the Knox Group Dolomites and there are numerous large sinkholes indicated along strike on the topographic map, which likely only captures a small percentage of the actual sinkholes present. Steps should be taken to avoid direct injection of concrete into open throat sinkholes, which could impact the groundwater and necessitate additional support to protect the slab from collapse. TVA also notes that the fiber cable installation will require the crossing of Gallagher Creek and unnamed tributaries, making an Aquatic Resource Alteration Permit (ARAP) necessary. TDEC encourages TVA to reflect these considerations in the Final EA.

TDEC appreciates the opportunity to comment on this Draft EA. Please note that these comments are not indicative of approval or disapproval of the proposed action, nor should they be interpreted as an indication regarding future permitting decisions by TDEC. Please contact me should you have any questions regarding these comments.

Sincerely,

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