

Federal utility seeks proposals for big carbon-free push

July 12 2022, By JONATHAN MATTISE and ADRIAN SAINZ



Credit: Unsplash/CC0 Public Domain

The nation's largest public utility is seeking proposals for what would be one of the biggest recent swings at adding carbon-free electricity in the U.S., laying out a mix-and-match of possibilities Tuesday that range from solar to nuclear.

The Tennessee Valley Authority's request for proposals seeks up to

5,000 megawatts of carbon-free energy before 2029. It's the first request that nuclear industry experts know of that pairs new nuclear technologies with wind and solar.

The request includes other options too, such as hydroelectric, geothermal and battery energy storage systems. The Nuclear Energy Institute said that while it's a first, other utilities envision this type of future and the trade association expects to see a steady increase in new nuclear energy procurements like this.

The move comes juxtaposed with the federal utility's lingering proposal to shut down the massive coal-fired Cumberland Fossil Plant in Tennessee and replace it with natural gas, which would put the utility out of step with President Joe Biden's administration goal of a carbon-pollution-free energy sector by 2035. The U.S. Environmental Protection Agency recently expressed concerns along those lines, urging TVA to consider other options. TVA's final decision is expected in the coming months.

The new request-for-proposal would be one of the country's biggest recent carbon-free energy additions. In California, regulators approved a plan in February for 25,500 additional megawatts of renewables and 15,000 megawatts in new battery storage resources there by 2032.

Proposals for TVA's plan must be submitted by Oct. 19, with selected projects to be announced in spring 2023. They don't need to be located within TVA's service area, which includes Tennessee and parts of six surrounding states. Don Moul, TVA chief operating officer, said any nuclear power for the proposal would rely on existing plants, calling the initiative a tool for "near-term" additions to its portfolio.

"We've opened up the aperture to not only renewables—solar, wind, battery storage—but we're also looking at any other source that's carbon

free," Moul told The Associated Press. "That could be existing nuclear. That could be existing hydro. Whatever can be delivered to our service territory at a price, and with the reliability level that meets our needs, is fair game."

Utility officials already have plans to add 10,000 megawatts of solar to its system by 2035. They have partnered on projects with several prominent industrial customers who want their operations tied to renewables. They also have focused helping the region transition from carbon-emitting gas vehicles to electric ones, with efforts to establish charging stations, transition its workforce fleet to electric, and team up on economic development to bring big electric vehicle projects to the area.

Still, concerns have grown about TVA's timeline for cutting down on climate change-causing releases into the air. TVA has set a goal to reduce greenhouse gas emissions by 80% by 2035, compared to 2005 levels. TVA CEO Jeff Lyash has said TVA will not be able to meet the 100% reduction goal without technological advances in energy storage, carbon capture and small modular nuclear reactors, instead aiming for 80%. The utility has its own aspirational goal of net zero emissions by 2050.

The conflict over TVA's timeline has been front and center in its plan to turn the Cumberland Fossil Plant, its biggest coal-fired plant at an output of 2,470 megawatts, into a natural gas plant. TVA has described natural gas as a bridge to more renewables.

An environmental attorney said Tuesday that if TVA is serious about clean energy leadership, it needs to drop natural gas plant plans.

"We're encouraged to see TVA exploring affordable, available carbon-free energy, but the fact remains that TVA has also proposed the nation's

largest investment in new fossil fuel plants and pipelines, to the tune of billions of dollars," said Amanda Garcia, Tennessee director for Southern Environmental Law Center.

Late last month, the Environmental Protection Agency expressed concern during a public comment period that the coal-to-gas switch-out preference "did not consider important, available mitigation options to reduce impacts from (greenhouse gas) emissions." It suggested looking into running the plant at least partly with "clean hydrogen," installing additional equipment to capture carbon at the plant, or building a smaller natural gas plant paired with renewables, energy efficiency measures, energy storage, or other options.

The EPA added that TVA did not fully disclose the impact of greenhouse gases for the options available, or the modeling and underlying assumptions for those alternatives.

"The EPA believes it is essential for TVA to improve the proposed action and (environmental impact statement) because of the urgency of the climate crisis," the EPA wrote. "Overlooked options for TVA to take meaningful, cost-effective action to reduce GHG emissions can help conform TVA's action to science-driven policy goals."

Moul said TVA will evaluate comments from the EPA and others and factor them into the utility's decision-making process.

© 2022 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Federal utility seeks proposals for big carbon-free push (2022, July 12) retrieved 24 April 2024 from <https://techxplore.com/news/2022-07-federal-big-carbon-free.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.