

# TVA

## Allen Aeroderivative Combustion Turbine Project

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# Welcome to Our Community Open House

We are sharing information about our proposal to modernize and upgrade our Allen Combustion Turbine Plant to meet the growing energy needs of Memphis and the West Tennessee region.

We want your feedback on the proposal and on the scope of the environmental review that would be considered as part of the project.

Your comments may be submitted at this meeting, or online at [tva.com/allenct](https://tva.com/allenct) or by email to [NEPA@tva.gov](mailto:NEPA@tva.gov).

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# Our Commitment to You

TVA is committed to serving you through our mission of providing low-cost, reliable power, environmental stewardship, and economic development.

The stability of our regional economies and the lives of the people we serve depend on a safe, secure energy supply.

Ensuring energy security begins with diverse energy sources.

TVA maintains one of the largest, most diverse and cleanest generation systems in the nation.

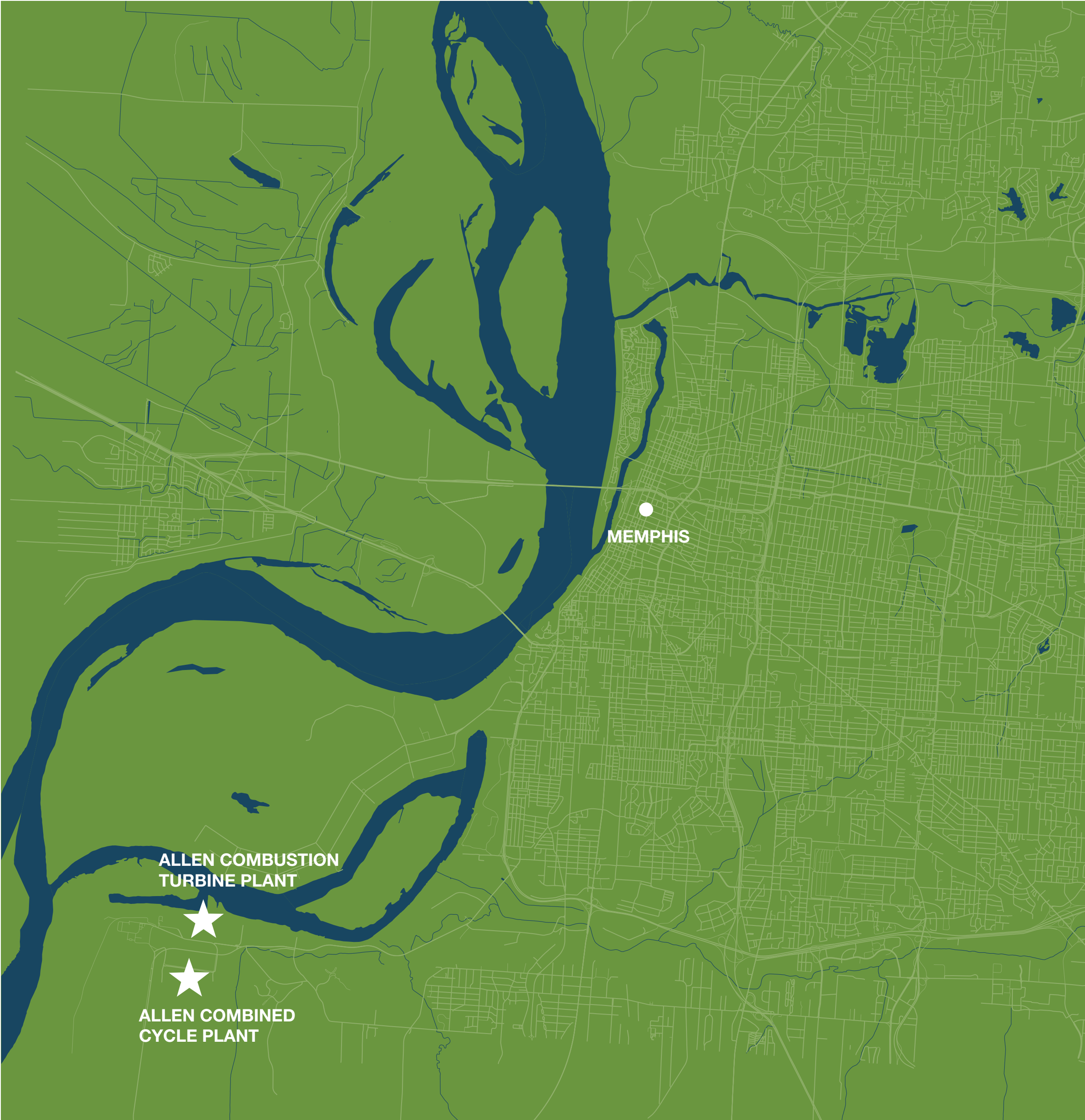
We are committed to maintaining the diversity of our system as we work to meet rising customer expectations, electrification and economic growth across Memphis and the West Tennessee region.



*Allen Combustion Turbine Plant*

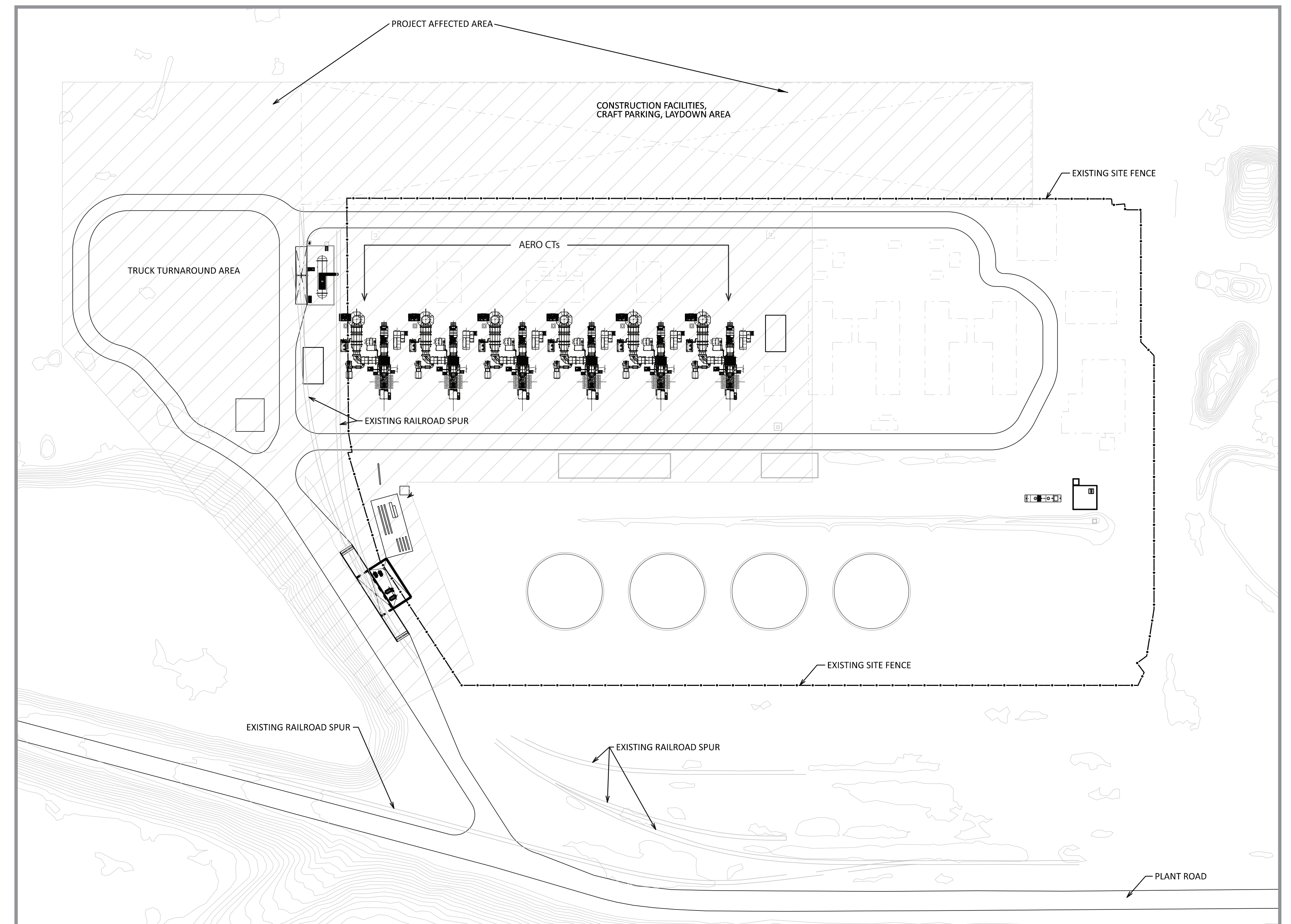
# Where is the Allen Combustion Turbine Plant?

In 1971, TVA built the Allen Combustion Turbine Plant to supply power during times of peak power demand across the TVA power system. The proposed project would modernize and upgrade the Allen Combustion Turbine Plant to meet the growing energy needs of Memphis and the West Tennessee region.



# What is the Proposed Allen Aero Combustion Turbine Project?

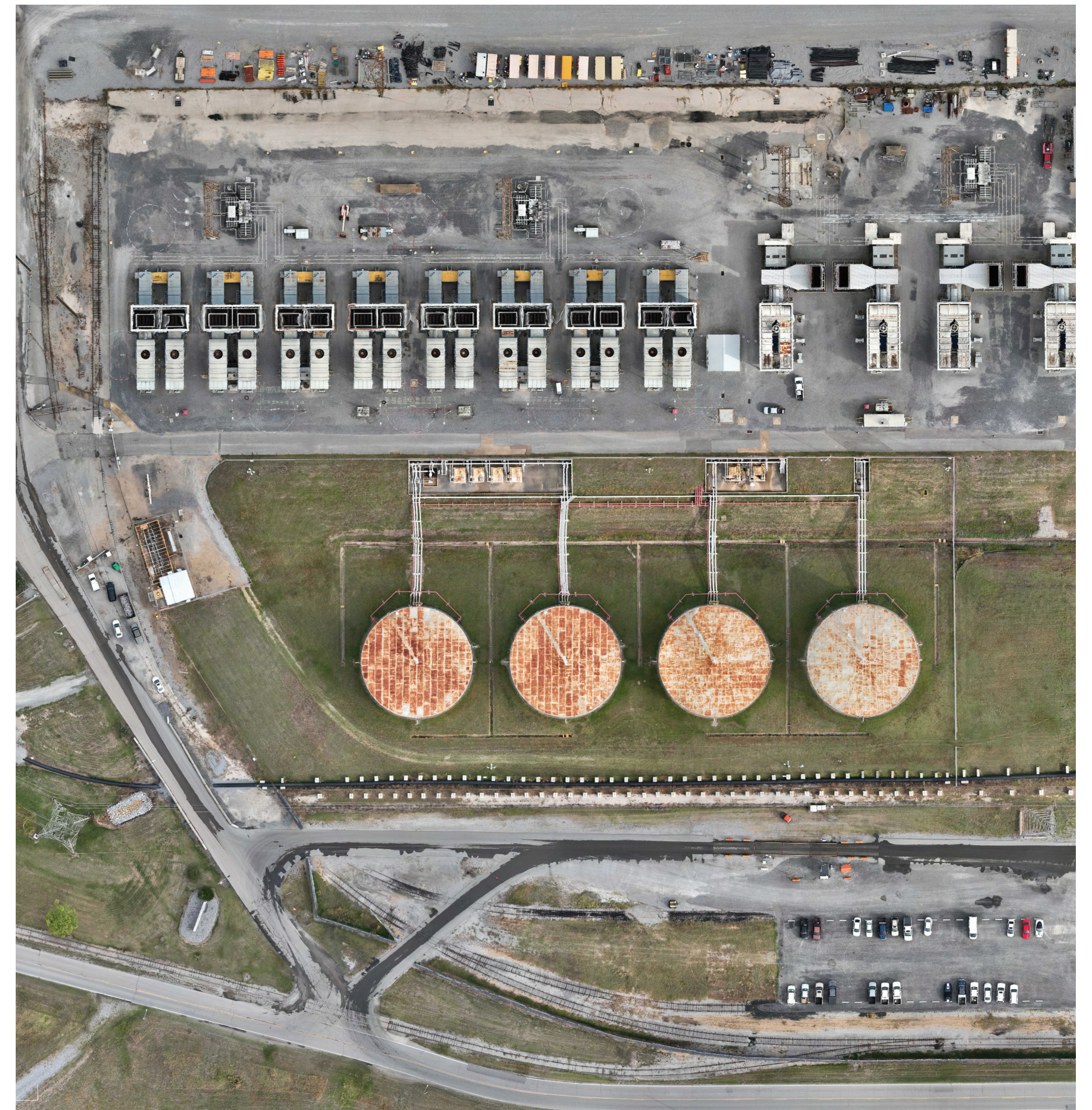
- TVA is proposing to modernize and upgrade the Allen Combustion Turbine Plant, which was built in 1971.
- TVA is retiring 16 combustion turbine units that have historically provided power during times of peak demand across the TVA power system.
- TVA is proposing to install 6 new, state-of-the-art aeroderivative combustion turbines, also known as “Aero CTs”.
- The 6 Aero CTs will enhance the reliability of the TVA power system and enable investments in solar generation and other renewable resources.



# Why is the Proposed Allen Aero CT Project Important?

By modernizing and upgrading the Allen Combustion Turbine Plant with 6 new state-of-the-art, aeroderivative combustion turbines (Aero CTs), TVA would:

- Use the units' synchronous condensing capability to enhance grid stability
- Use the Blackstart capability on 4 units to allow quick starts without external power
- Enhance the reliability of the TVA power system
- Enable greater investments in solar generation and other renewable resources
- Help meet growing energy needs of Memphis and the West Tennessee region
- Support carbon reduction goals



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# What is an Aeroderivative Combustion Turbine?

A combustion turbine (CT) is essentially the engine of a power plant that converts natural gas to energy. This energy is used to power homes and businesses.

An aeroderivative combustion turbine is a smaller, modern version of the traditional CT that evolved from innovations in airplane jet engines.

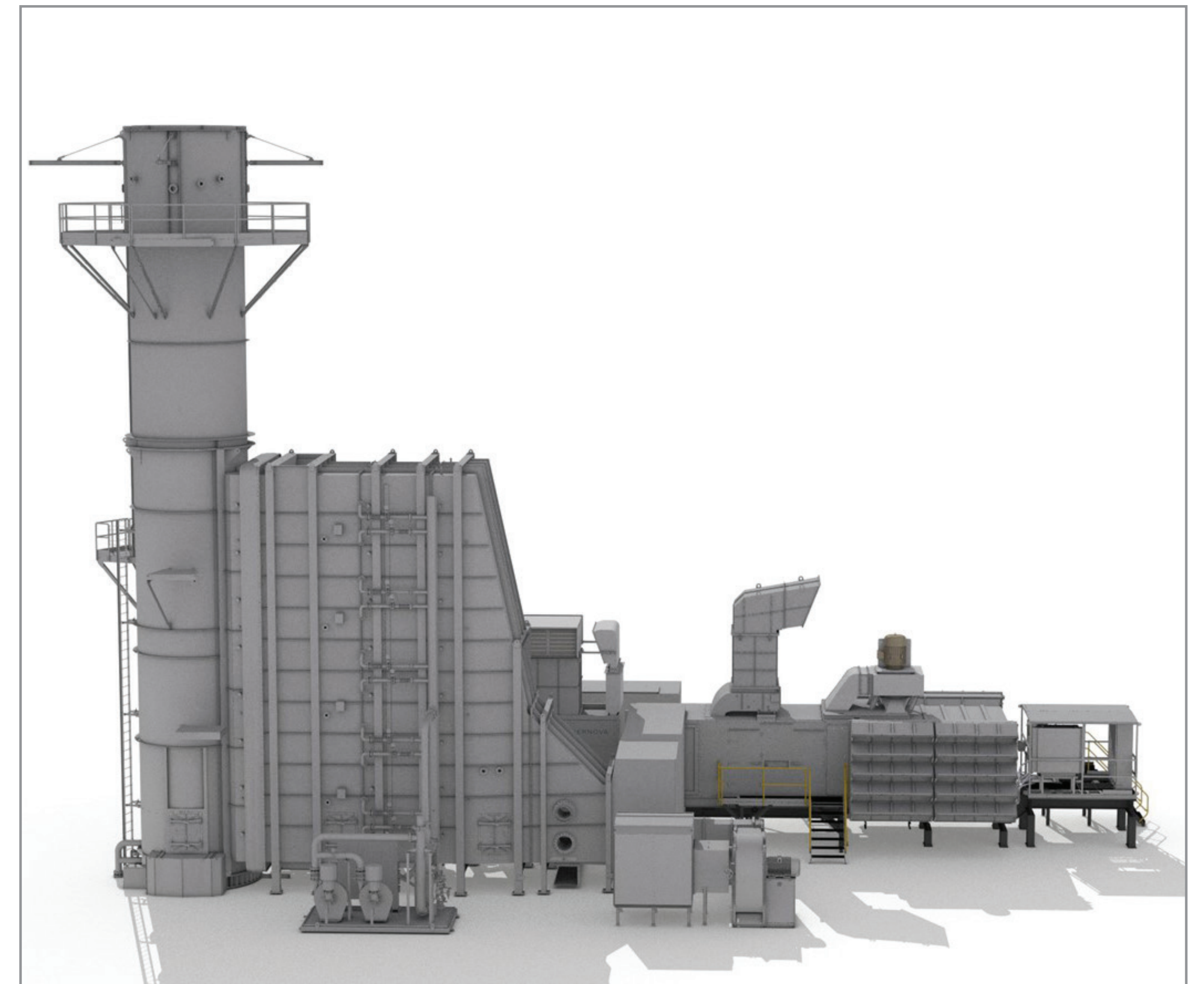
The benefits of Aero CTs include:

**Greater Power Reliability:** Aero CTs compensate for fluctuations in the power supply during peak demand (when power demand exceeds supply) or during reverse peaking (when power supply is diminished such as when cloud cover impacts solar generation)

**Fast Start Capability:** Aero CTs have the technology to rapidly respond to extreme weather-related events

**Greater Renewables Investment:** Aero CTs support greater renewable energy generation

**Lower Emissions:** Aero CTs support carbon reduction goals



# Environmental Review Process of Project

- Environmental stewardship is a core mission of service at TVA. We take seriously our role and responsibility in protecting natural resources.
- As a federal agency, TVA must also follow the requirements of the National Environmental Policy Act (NEPA) prior to making decisions that could impact the environment.
- TVA is asking for your feedback on the proposed project to modernize the Allen Combustion Turbine Plant and on the scope of the environmental review.
- Your feedback is an important part of the process and helps inform the nature of the environmental review process.



# Proposed Project Schedule

Allen Aeros Project	Fall 2023	Winter 2024	Spring 2024	Summer 2024	Fall 2024	Winter 2025	Spring 2025	Summer 2025	Fall 2025	Winter 2026	Spring 2026
<b>Publication of Notice of Intent in Federal Register</b> 12-Oct-23	★										
<b>Public Scoping Period</b> (October 12 to November 13, 2021)	■										
<b>Publish Scoping Report</b>		■									
<b>Develop the Draft NEPA Document</b>		■	■								
<b>Publish Draft NEPA Analysis</b> (Public Comment Period & Meeting)			■								
<b>Finalize NEPA Document</b>				■	■	■					
<b>TVA Decision</b>						■	■				
<b>Final Permitting</b>							■	■	■		
<b>Construction of Aero CTs</b>								■	■	■	■
<b>Project Begins Operations</b>											■



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# TVA Welcomes Your Feedback

- TVA welcomes your valuable feedback on the scope of the environmental review for the proposed project to modernize the Allen Combustion Turbine Plant. Your comments may be submitted to TVA at this meeting, online, by email, or by U.S. mail. Comments must be submitted no later than November 13, 2023.
- Join us for a virtual meeting on the proposed project at 6 p.m. on November 2, 2023.
- When TVA publishes the draft environmental review, there will be an opportunity to review the document and provide more feedback.
- Visit [tva.com/allenct](https://tva.com/allenct) to learn more, submit comments, and register for the upcoming virtual meeting.

