

**Mitchell Power Plant
Moundsville, West Virginia**

Mechanical Draft Cooling Tower Modernization Project

Award Number: DE-FE0032774

Recipient: Wheeling Power Company

Project Partners: Kentucky Power Company (KPCo), Appalachian Power Company (APCo)



Last updated: September 25, 2026

Project Overview



Project Goal: Modernize the Mitchell Plant cooling system through installation of a new mechanical draft cooling tower by Q2 2028 replacing the nearly 60-year-old Unit 2 natural draft cooling tower

Plant Background

- Bituminous coal fired power plant
- Located near Moundsville, West Virginia along the Ohio River
- Unit 2 – 800 MW generating capacity (total plant capacity 1600 MW)
- Employees - 167 full-time personnel
- Serves approximately 1.25 million customers

Why This Project Matters

- Supports long-term operation of Mitchell Plant
- Improves generation reliability
- Reduces risk associated with current aging cooling tower
- Preserves jobs and regional economic benefit

Project Overview – Cont.



Key Participants

- Wheeling Power (recipient)
- Appalachian Power Company (Parent of Wheeling Power) – 50% Owner
- Kentucky Power Company - 50% Owner
- American Electric Power Company (Parent Company of APCo and KPCo)

Funding Summary

- Total project cost: \$161.7M
- Federal funds: \$51M
- Recipient cost share: \$110.7M

Period of Performance

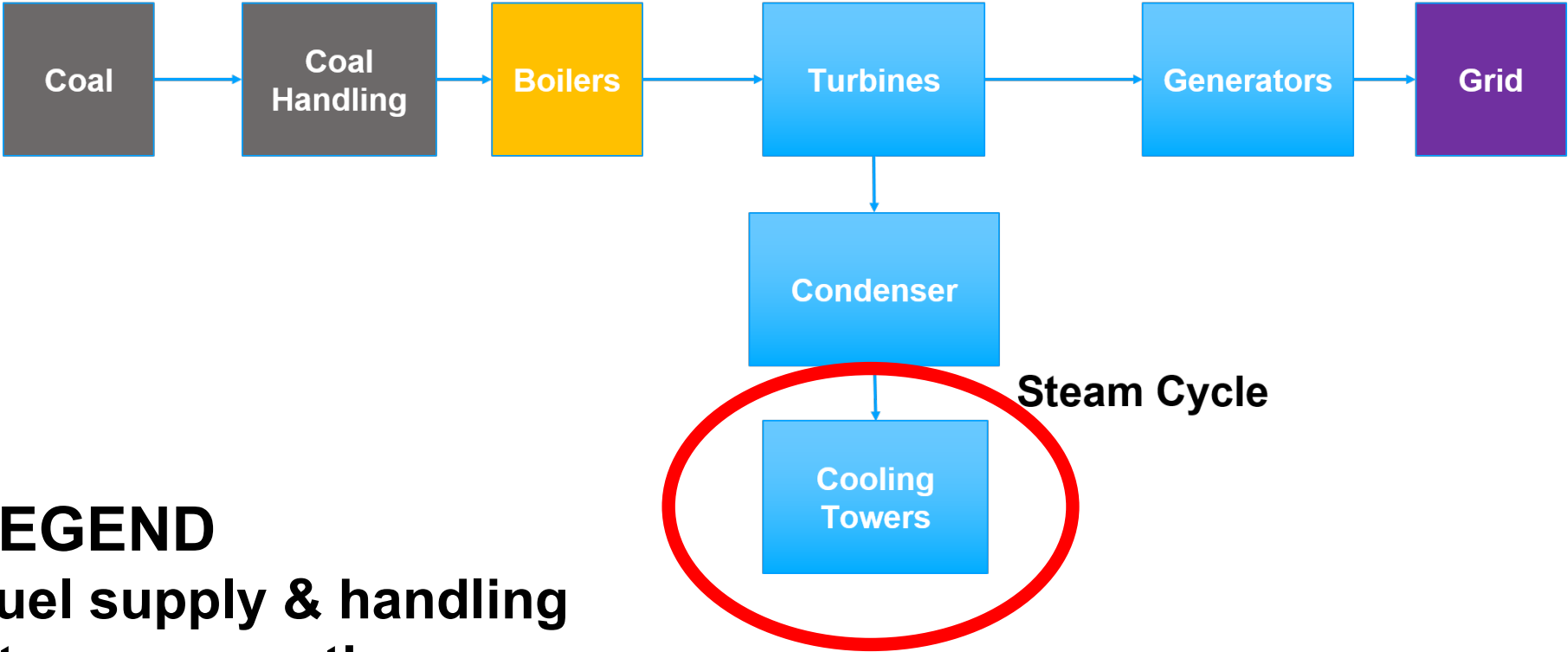
- 9/1/2026 – 9/30/2028



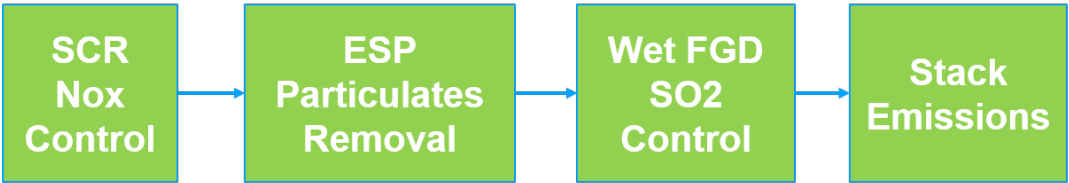
Plant Configuration



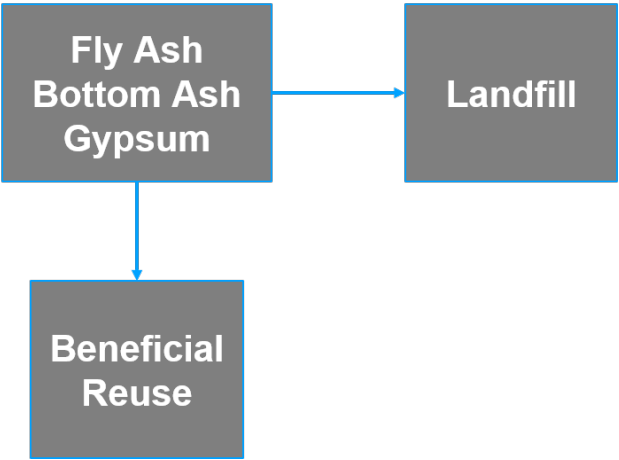
Main Power Generation Train



Flue Gas



Ash & Byproduct Handling



LEGEND

- Fuel supply & handling
- Steam generation
- Power generation & cooling
- Environmental controls
- Ash & byproduct handling
- Electrical output

Project Need and Expected Benefits



Issue with Current Natural Draft Cooling Tower

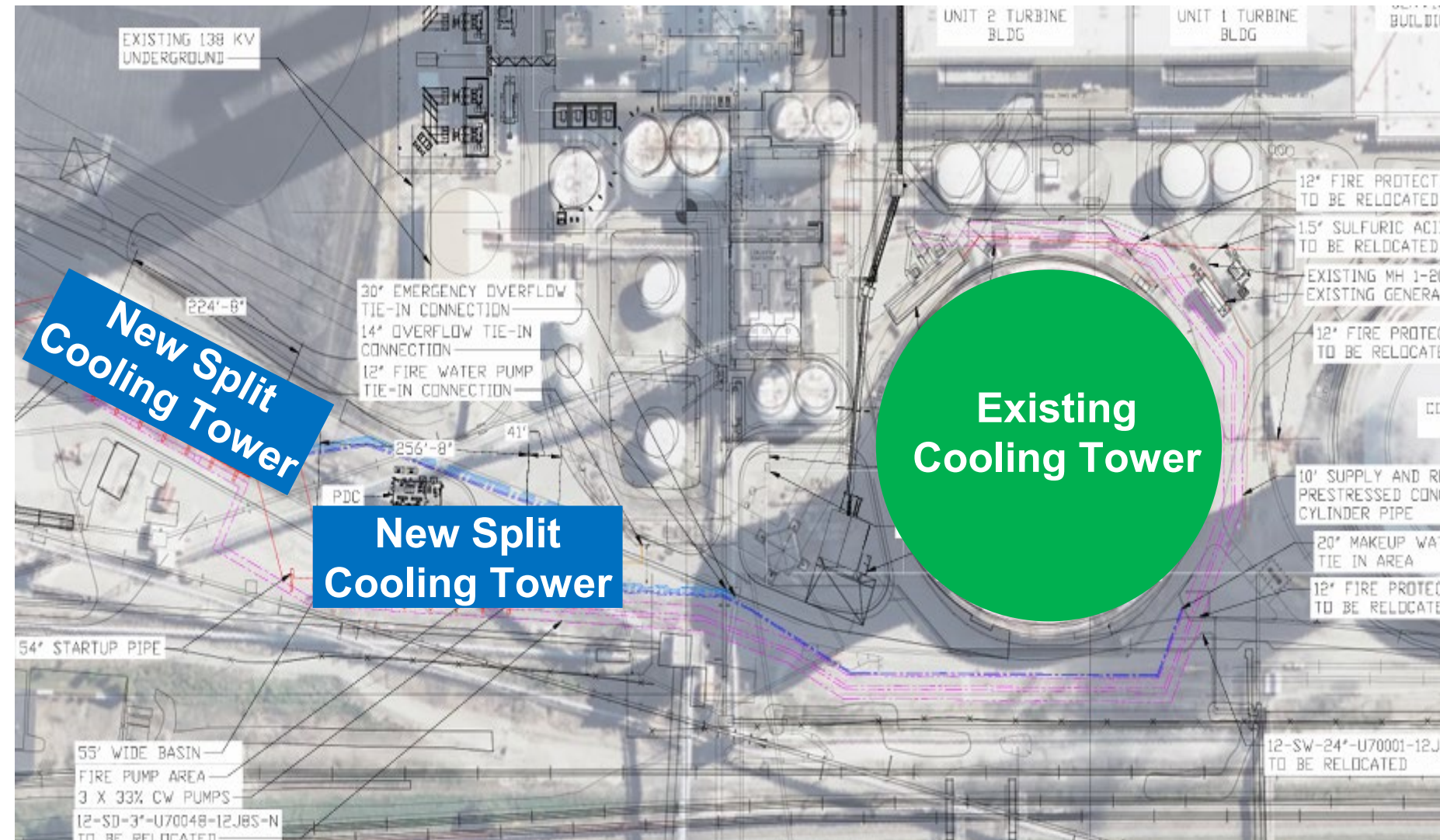
- Requires significant repairs
- Presents a major reliability risk

Expected Benefits

- Avoided potential loss of up to 800 MW of generation
- Improved reliability and availability
- Expected life greater than 25 years

Regional Benefits

- More efficient power generation
- Lower long-term costs to customers
- Continued delivery of stable, reliable base load to existing customers and to attract business growth



Project Scope & Technical Approach

Engineering

- Develop engineering and design packages for various systems and disciplines

Procurement

- Prepare competitive bid packages
- Procure major equipment and long lead time equipment early

Construction

- Prepare various construction packages
- Competitively bid construction items
- Construction while current unit is online, short tie-in outage to connect new cooling tower

Permitting

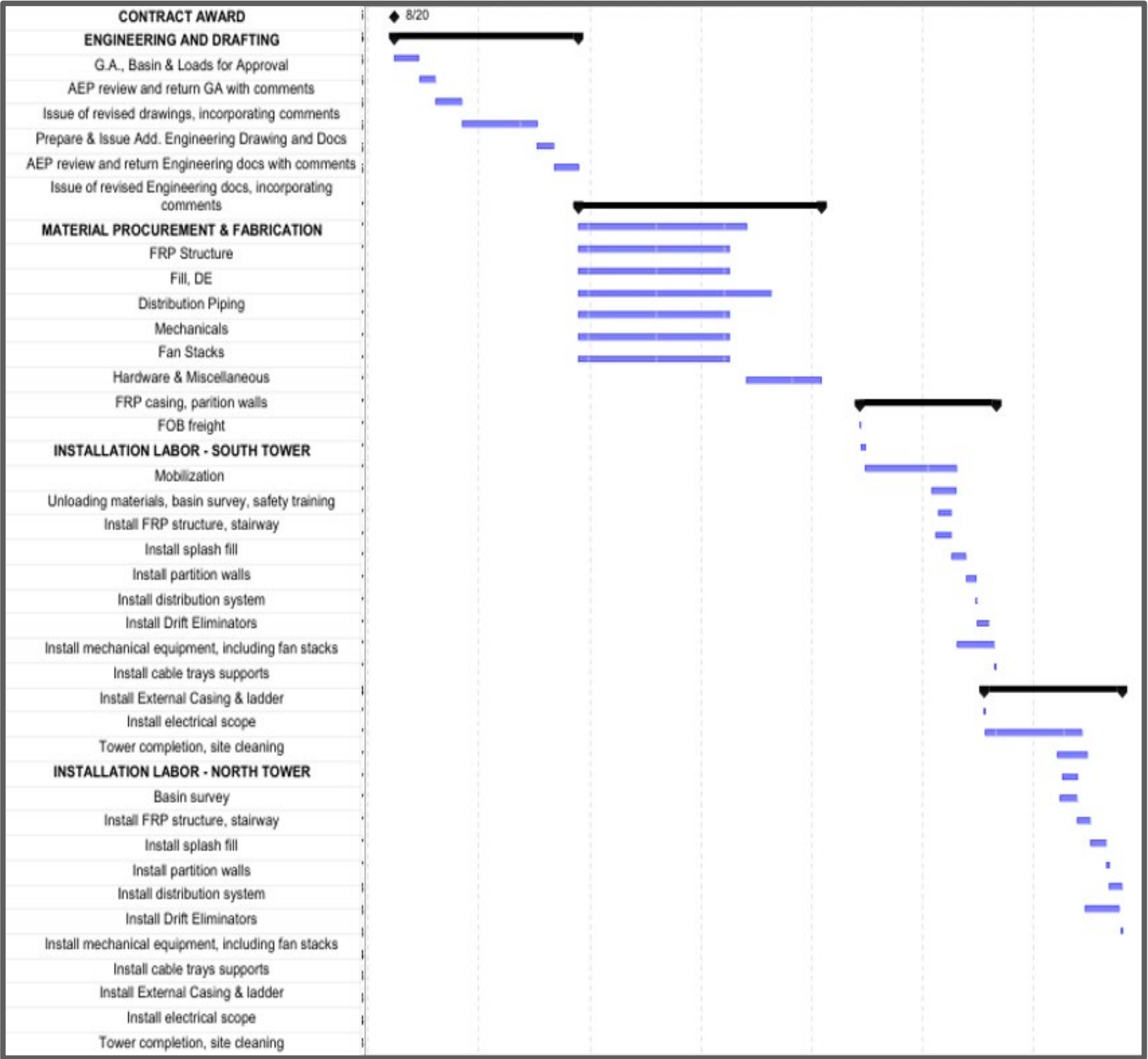
- Obtain air permit, floodplain permit, erosion and sediment control permits, etc.

Project Schedule



Key Milestones

- Detailed design start: 2nd quarter 2026
- Construction start: 2nd quarter 2027
- Cooling tower at site: 3rd quarter 2027
- Planned outage: 2nd quarter 2028
- Completion: end of 2nd quarter, 2028
- Project closeout: end of 3rd quarter, 2028



Success Metrics

Safety

- Zero recordable incidents or environmental events

Schedule

- Achieve Commercial Operation Date (COD) by end quarter, 2028

Cost

- Deliver within approved budget

Performance

- Successfully commission new cooling tower

Reliability

- Reduce cooling system outage risk

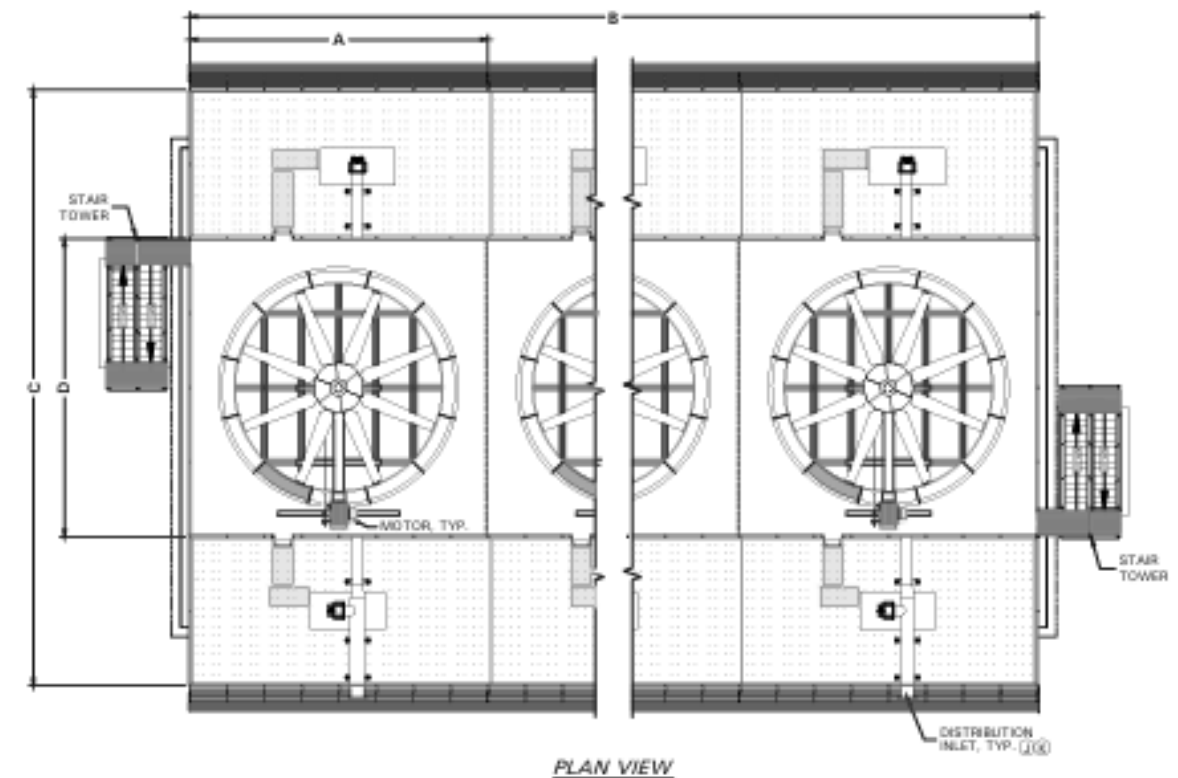
Asset Life

- Extend critical generation infrastructure life

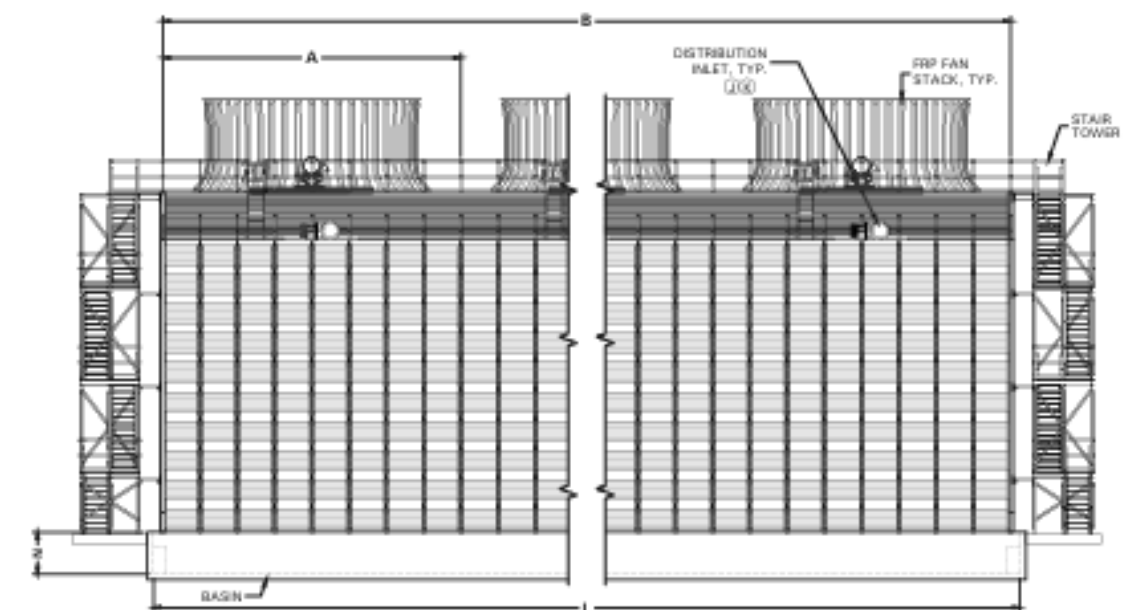
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POWER

APPALACHIAN
POWER

KENTUCKY
POWER



PLAN VIEW



LONGITUDINAL ELEVATION

Risk Management



Highest-Priority Risks

- Equipment delivery delays
- Existing tower reliability issues
- Outage execution challenges
- Labor/resource availability
- Engineering & permitting delays
- Weather-related impacts

Mitigation Strategy

- Identify & order long lead equipment
- Cooling tower monitoring
- Outage planning & controls
- Resource planning
- Early permitting & coordination
- Contingency management



Acknowledgement and Disclaimer



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A person wearing a red long-sleeved shirt is holding a blue pen and writing on a clipboard. The background is blurred, showing warm, golden light. The text "Thank You" is overlaid in the center in a large, white, sans-serif font.

Thank You

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