



TVA's Clinch River Small Modular Reactor Project

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TVA Vision

One of the Nation's *Leading* providers of low-cost and cleaner energy *by 2020*



Low Rates



Cleaner Air



High Reliability



More Nuclear Generation



Responsibility

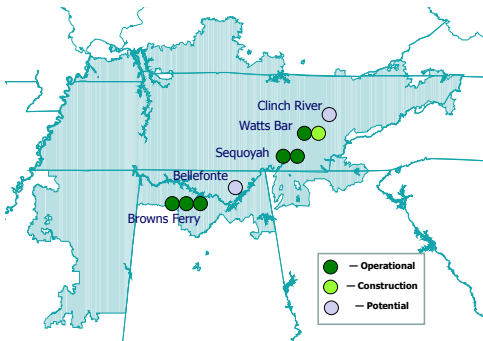


Greater Energy Efficiency

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TVA's Nuclear Fleet



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SMR Technology Opportunity

- Supports TVA's vision and technology innovation mission
 - One of three "signature technologies"
- Offers several benefits:
 - Improved safety and security
 - Reduced construction time
 - Increased standardization
 - Smaller footprints; more site options
 - Lower financing costs

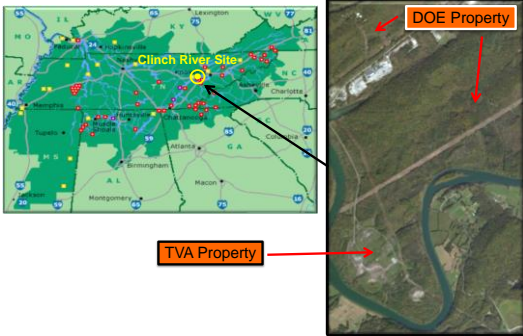


Option for clean, base load energy in smaller cost increments

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Site Adjacent to Oak Ridge Reservation



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Site Infrastructure Development



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Site Characterization Studies



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Site Characterization



Meteorological tower



Core Boring starting soon

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Site Layout & Core Boring Plan



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ITM Clinch River Breeder Reactor Photo



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ITM Licensing Strategy

- Engage with NRC staff early and often
 - Alignment of expectations
 - No surprises
- Focus on hard spots early
 - Avoid “lingering issues” at the end
 - Enables management input without urgency pressure
- Quality submittal
 - Do what we said
 - Two rounds of RAls or less

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ITM Why Part 50 for First Plant?

- Anticipate opportunities to make design changes for improved constructability/cost savings
- Changes during construction have been problematic under Part 52
- ITAAC closure process remains an uncertainty
- Part 50 offers possibility for earlier construction start, shorter duration schedule

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Licensing/Design Approach

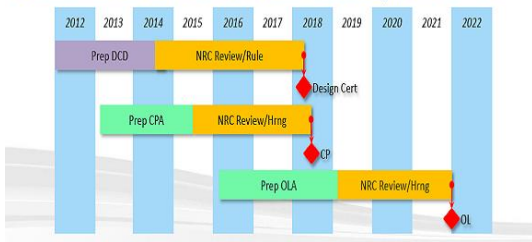
- Using 10 CFR Part 50 approach for first nuclear plant, subsequent plants would be licensed under Part 52
- As changes are made to the Certified Design during Clinch River Plant construction, the Certified Design will be updated to be the Clinch River design.
- TVA does not want a “one-off design”
- B&W wants its Standard Design to be informed by lessons learned during construction of the first plant

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Licensing Schedule

Coordinated Part 50/Part 52 Process: One Design, One Review



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Summary

- Early in Design and Licensing Phase of Project; site characterization underway
- TVA thankful to be moving forward with B&W and supported by DOE
- SMRs have significant potential to meet future clean, base-load power generation needs safely and in more affordable increments

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