Advanced Nuclear: Ready for Liftoff?

**Moderator:** Hon. Kimberly Duffley, NC

**Panelists:**

**David Fountain,** Executive Vice President and General Counsel, Tennessee Valley Authority

**Julie Kozeracki,** Senior Advisor, U.S. Department of Energy, Loan Programs Office

**Kreshka Young,** North American Commercial Commercial Director, Dow, Inc.
TVA and Advanced Nuclear
Clinch River Nuclear Project & New Nuclear Program

National Association of Regulatory Utility Commissioners (NARUC) Summer Policy Summit

David B. Fountain
Tennessee Valley Authority
Executive Vice President and General Counsel

July 17, 2023
America’s Largest Public Power Company

- Among the largest utilities in the U.S.
- 3rd largest nuclear owner in the U.S.
- 90 years in operation (1933-2023)
- 80,000 square miles service area
- 10 million service area population
- 38,111 MW diverse power system capacity
- 16,000 miles+ transmission system
- $12.5 billion annual revenues
- $51.2 billion total assets
- Entirely self-funded
- All board members appointed by U.S. President, confirmed by U.S. Senate
Since its inception, TVA has innovated to meet the needs of the Valley.

Today and in the future, the Valley needs affordable, reliable, resilient, and carbon-free energy to lead the nation in energy innovation.
TVA’s Nuclear Power and Construction Experience

OUR EXPERIENCE & EVOLUTION POINT TO ADVANCED NUCLEAR

- TVA operates the third largest nuclear reactor fleet in the U.S.

- TVA’s Watts Bar Unit 2, the nation’s first new nuclear generation in 20 years, entered commercial operation in 2016

- At any given time, TVA has around 900 active projects totaling $12 Billion in approved funding for construction and refurbishment projects.
Clinch River Nuclear Project

TVA'S POTENTIAL FIRST ADVANCED NUCLEAR SMALL MODULAR REACTOR*

TVA has not yet decided to deploy an SMR. Any decisions will be subject to support, risk sharing, required internal and external approvals, and completion of all necessary environmental and permitting reviews.
TVA identified GEH’s innovative BWRX-300* reactor design as the most promising for near-term deployment.

This provides confidence the technology can be rapidly deployed on a predictable schedule with acceptable risk.

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GE-Hitachi BWRX-300*

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Technology Collaboration Agreement

ONTARIO POWER GENERATION

Participating in the BWRX-300 SMR design for deployment in Canada. Two years ahead of TVA proposed deployment timeframe.

TVA

Participating in the BWRX-300 SMR design being evaluated for deployment in the Valley.

synthos

Participating in the BWRX-300 SMR design being evaluated for deployment in Poland.

March 23 Technology Collaboration Agreement Signing in Washington, DC

Developer of the BWRX-300 design being evaluated for deployment.
# TVA Vision for Advanced Nuclear

**STRATEGICALLY MOVING FORWARD FOR THE PEOPLE OF THE VALLEY**

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<tr>
<th>Leadership</th>
<th>TVA’s leadership in technology innovation provides a pathway to net-zero carbon emissions.</th>
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<tr>
<td>Experience</td>
<td>TVA has the nuclear and construction experience and talent to support small modular reactor (SMR) development and deployment.</td>
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<td>Approved Site</td>
<td>The NRC approved an Early Site Permit for TVA’s Clinch River Site, establishing the site’s suitability for SMRs.</td>
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<td>Strategic Approach</td>
<td>TVA’s Decision Gates will ensure the timing of deployment is right.</td>
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<td>Future-Looking</td>
<td>TVA’s Advanced Nuclear Program will inform future SMR decisions and potential deployment locations across the Tennessee Valley.</td>
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