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TVA Board Authorizes New Nuclear Program

The Tennessee Valley Authority Board of Directors ratified approval of a programmatic approach to exploring advanced nuclear technology as a component of its decarbonization goals as discussed at its meeting on the campus of Western Kentucky University on February 10th, the board's first in-person meeting since the COVID-19 pandemic began.

As part of the development of innovative, cost-effective technologies that will achieve TVA's aspiration of a net-zero carbon energy future, as outlined in its Strategic Intent and Guiding Principles, advanced nuclear is one of several technologies TVA is investigating. Other technologies include next generation energy storage, carbon capture, new hydroelectric pumped storage and hydrogen. In addition, TVA continues to expand its renewable energy portfolio, including the targeted addition of up to 10,000 megawatts of solar energy by 2035. "Achieving a carbon-free energy future is a shared priority and TVA is developing a diverse portfolio of clean energy sources, like advanced nuclear technologies, that will help address this challenge," said Jeff Lyash, TVA president and chief executive officer. "There is no single answer to achieving our nation's clean energy targets – it will require collaboration and innovation. Working alongside industry partners will allow TVA to go further, faster in developing innovative, cost-effective technologies that will not only help the people of the Tennessee Valley but also support the energy security of the nation.

"We cannot meet the energy needs of tomorrow by making small changes in today's power system. We must work toward a net-zero carbon future today at a programmatic level and, combined with the efforts we've already undertaken over the past few years, that is what TVA's New Nuclear Program enables us to do." The New Nuclear Program will provide a disciplined, systematic "roadmap" for TVA's exploration of advanced nuclear technology, both in terms of various reactor designs being proposed and potential locations where such facilities may be needed in the region to support future energy needs.

TVA operates the nation's third largest nuclear fleet, which today supplies more than 40% of the energy produced to supply the region. "TVA is a nuclear energy leader with extensive experience and expertise in building and operating nuclear facilities," said Lyash. "We are uniquely positioned to lead this effort. Clean, reliable advanced nuclear technologies will be an essential part of our region and nation's clean energy future."

"Importance of Partnerships: TVA cannot pursue new nuclear technology alone; this must be a national effort that we do in partnership with other utilities, research institutes, and state and federal governments. First of a kind nuclear technology, like any innovative technology, carries financial and technical risks better shared by multiple partners. TVA will collaborate with other entities to share the costs and risk



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associated with evaluating advanced reactor designs. Partnerships with others doing this work will enhance all of our efforts, as we learn from each other and optimize solutions together not only for our region but for the entire nation,” stated Lyash.

Exploring Carbon-Free Technologies

The U.S. Department of Energy’s Oak Ridge National Laboratory (ORNL) and the Tennessee Valley Authority (TVA) are joining forces to advance decarbonization technologies from discovery through deployment through in a new memorandum of understanding, or MOU.

Eliminating carbon dioxide emissions in the production of U.S. electricity is essential to achieving the federal government’s goal of net-zero carbon emissions. TVA provides electricity for 153 local power companies serving 10 million people in Tennessee and parts of six surrounding states, is actively implementing a variety of new technologies in pursuit of this goal. As DOE’s largest science and energy laboratory, ORNL offers unique research and development capabilities and expertise that can further accelerate the transition to a carbon-free electricity sector.

“ORNL applies a broad range of scientific capabilities to the development of clean energy solutions,” ORNL Director Thomas Zacharia said, “and TVA is an invaluable partner for deploying these technologies for the benefit of East Tennessee and the nation.”

Partnerships between TVA and ORNL date to the earliest days of the lab, with recent collaborations including the first full-scale computer simulation of a working nuclear reactor and installation of 3D-printed reactor components, all aimed at accelerating cost-effective deployment of carbon, “TVA is proud to partner with Oak Ridge National Laboratory to identify and scale innovative nuclear and other technologies that will create a cleaner, carbon-free future,” Jeff Lyash, TVA president and CEO, said.

“This is right in TVA’s wheelhouse, and our partnership will redefine what’s possible for the national and global energy industry.” The institutions will work together to promote, pursue, evaluate, and demonstrate the feasibility, operability, and affordability of utility-scale decarbonization technologies.

These technologies will focus on electricity, but the partners may also explore related developments such as hydrogen generation and grid modernization and security.



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TVA Unveils \$3M in Pilot Projects

The Tennessee Valley Authority (TVA) announced an industry-leading initiative to partner with communities in portions of the seven-state region and help provide equitable access to technology, resulting in job creation and energy and environmental justice.

TVA's Connected Communities will fund several proposed pilot projects that leverage cutting-edge technologies to address select challenges, including broadband access, environmental risk monitoring, digital literacy training and next-generation career options. Community-driven data will be used to identify the gaps and populations without equitable access.

The selected projects, chosen by local governments, power companies and community-based organizations, will share more than \$3 million in grant funding from TVA in 2022 and 2023.

“We recognize that access to technology and other critical services is the foundation for success in the modern-day world. Our Connected Communities initiative will help close the equity gap in communities across our region, offering broad-ranging, innovative solutions that will continue to make life better for the people we serve,” said Joe Hoagland, vice president, Innovation & Research. “This announcement also marks another step to jointly prepare our communities, customers and systems as we progress toward a clean energy future.”



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Driving Happy or Pump Panic?

If you've been considering buying an electric car, TVA just launched an initiative that might help you decide. Have you been looking at an electric car, all those sleek lines and quiet power; the potential to save \$1,000 per year in energy costs? Clean, good-looking, decked out and quiet, it's the right car for our planet at this time. It could be the right car for you. But are you going to buy it?

If yes, good for you! Join millions of other Americans in a truly cutting-edge driving experience. If not, chances are you have some fear related to being unable to charge the car while you're out and about. "Whenever we talk to potential car buyers range anxiety is their number one concern, they may get in cars and love them but think there is no place to charge it," explains Drew Frye, manager electric vehicles programs for TVA. "Range anxiety is top barrier that's exactly what the Fast Charge Network is all about, getting people comfortable that they have charging options no matter which way they go."

TVA's goal is to put 200,000 electric vehicles on the road by 2028, is here to help with that concern.

On Tuesday, January 25th, TVA joined with Fort Payne Improvement Authority (FPIA) and the Alabama Department of Economic and Community Affairs (ADECA) to unveil the first two of 200 fast chargers as part of the Fast Charge Network that will be deployed across the Tennessee Valley on major thoroughfares. "We'll have them along interstates and U.S. highways," Frye says.

This fast charger site was made possible through a partnership with the Tennessee Valley Authority, ADECA and Seven States Power Corporation. TVA provided the DC fast chargers, ADECA contributed over \$45,000 from Alabama's Volkswagen Mitigation trust grant program for electric vehicles, and FPIA managed installation. End result? More possibilities for drivers, with benefits to the entire region. Along with high driver satisfaction, electric vehicles help:

- Attract good jobs — \$13.8 billion in EV and battery manufacturing have already helped create over 10,000 EV-related jobs in the Valley.
- Reduce carbon emissions from gasoline vehicles by almost 1 million metric tons per year or the equivalent of the carbon sequestered by 1 million acres of US forests in one year.
- Reinvest \$120 million in the local economy every year from electric refueling.



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The public power model made it possible, says FPIA Manager Mike Shirey: “We moved quickly to participate in this program because we want to make it easy for people to choose EVs so our community can enjoy the environmental and economic benefits of electric transportation. The support from TVA and grant funding from ADECA made it possible to add charging stations without affecting our customers’ bills.”

So, go ahead, get behind the driver’s wheel and take control of the part you play in America’s transportation transformation story. Look good and feel good as you do good for the environment. When you’re driving electric, you’re driving in style.

Engineer of the Year

Chris Saucier, this year’s winner of the 40th Annual Ike Zeringue Engineering Award, TVA’s highest honor, is an engineer who’s not only engaging and outgoing, but also team-oriented. He’s served the last five years as technical director at the Boone Dam Remediation Project, including construction of an internal cut-off wall, skillfully juggling the tasks that needed to be done while keeping his cross-functional 60-member team engaged and working toward common goals.

He’s kept them working on the same plan: Repair the dam and return it to service for the people of the Tennessee Valley as expediently, safely and cost effectively as possible. The results of his actions? Success! The dam is being readied now for full operations this summer, and will be both on time and under budget.

“This is the largest dam safety modification project that TVA has ever undertaken,” Saucier says, putting it in perspective. “As the dam’s internal ‘owner’ I have responsibilities for the engineering design, quality assurance, dam safety monitoring, technical records and documentation, and keeping our construction team supported.”



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Training the Next Generation of Line Workers

The Tennessee Valley Authority (TVA) is partnering with the Dr. Benjamin L. Hooks Job Corps Center in Memphis to provide Overhead Electrical Line and Underground Residential Distribution training to students and establish a pipeline of skilled workers for TVA's seven-state service area.

The Hooks Jobs Corps Center is part of the Job Corps program through the U.S. Department of Labor.

During a Feb. 23rd signing ceremony and news conference with representatives from the Hooks Job Corps Center and TVA, leaders signed a Memorandum of Understanding. The electric utility agrees to lend technical expertise to develop the local curriculum for Job Corps students.

"The future of the energy industry is founded upon the actions we take and investments we make today – and this partnership is a clear investment in our workforce of the future," said TVA President and CEO Jeff Lyash. "Our collaboration with the Dr. Benjamin Hooks Jobs Corp Center will offer our community professional resources, state-of-the-art training experiences, and access to educational programs to prepare a viable pipeline of well-trained talent as they enter the energy industry."

TVA will then help graduates enroll in the utility corporation's programs or the International Brotherhood of Electrical Workers (IBEW) Apprenticeship Program upon program completion. The partnership will create a trained professionals pipeline to TVA and its subcontractors, vendors, and partners. Apprentices in overhead lineman positions typically earn more than \$40,000 a year.

"The IBEW is committed to organizing electrical workers across North America and promoting on-the-job excellence, good wages and benefits, a safe workplace, and a voice on the job," Brent Hall, International Vice President of IBEW, said to attendees during the news conference. "We want students to know that we're here to support and welcome them into this industry."

Job Corps expressed hopes that the new program will begin a broader relationship with TVA. Currently, there are 23 Job Corps centers in Tennessee, Alabama, Mississippi, Kentucky, Georgia, North Carolina, and Virginia that offer career training programs that align with job opportunities at TVA.



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ATVG Spring 2022 Meeting

Spring 2022 April 26th (Central Time Zone)

Oak Grove Hotel 777 Winners Way

Oak Grove, KY 42262

April 26th

- **11:00 a.m. Board of Directors Meeting**
- **Noon: Lunch overlooking Harness Race Facility**
- **1:00 p.m. ATVG Membership Meeting; Call to Order and Introductions** - *Mayor Bill Newman; ATVG Board President*
- **Welcome to Christian County** - *Judge Executive Steve Tribble*
- **1:30 p.m. TVA Update** - *Virginia Gray and Bert Robinson; TVA Government Relations*
- **2:00 p.m. Ft. Campbell Economic Impact** – *Kelli Pendleton; Civilian Aide to Secretary of Army*
- **2:45 p.m. Break**
- **3:00 p.m. Disaster Recovery – Planning and Execution** - *Justin Maierhofer; TVA Vice-President*
- **3:30 p.m. Disaster Recovery – Water Cleanup** – *Chad Pregracke; President, Living Lands& Waters*
- **4:15 p.m. Wrap-up and Announcements** – *Mike Arms ATVG Executive Director*
- **4:30 p.m. Depart for off-site Reception hosted by TVA**
- **5:00 p.m. Reception at Valor Hall**
- **6:30 p.m. Dinner at Garrison Oak (Private Dining Room at Hotel)**

April 27th

- **7:30 a.m. Buffet Breakfast**

Safe Travels!

See you in Oxford, MS on July 27th & 28th, at the “Inn at Ole Miss”



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Registration Form

Association of Tennessee Valley Governments Meeting Registration Form

Registration Fee: \$175.00 for members and affiliates; \$300.00 for non-members

Name: _____

E-Mail: _____

Spouse's Name: _____

Registration Fee for spouse is included/No additional charge

Company/Organization: _____

Full Address: _____

Make checks payable to: Association of Tennessee Valley Governments- P.O. Box 3578 – Clarksville, TN 37043

Hotel Reservations at Oak Grove

Please indicate your hotel requirements:

Monday night April 25th _____ Number of Guests _____

Tuesday night April 26th _____ Number of Guests _____

****IMPORTANT NOTICE****

You cannot call the hotel directly to make your room reservations at the block rate of \$99 per night. So please fill out both forms below so ATVG can submit a master list of hotel registrations by **April 15th**

Please help us make necessary arrangements by letting us know if you will be attending.

Send the enclosed registration form by email to: registration@atvg.org or by U.S. mail to:

ATVG, P.O. Box 3578, Clarksville, TN 37043



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TVA Rebuilds Tornado-Ravaged Transformers

TVA's Power Service Shops is a jack of all voltages when it comes to refurbishing obsolete transmission equipment, or in this case, 61 residential transformers that were damaged by the Kentucky tornados in December. It's an odd request, especially when the cost of repairing a small transformer is often more expensive than buying a new one.

But in the days of COVID supply-chain hurdles that are affecting everything from parts to paper towels, buying mass numbers of new transformers is a logistics challenge that could take weeks, if not months to resolve. That's why TVA is now in the business of working to repair transformers for three Kentucky LPCs. It's part of our commitment to Powerful Partnerships, and when TVA asked how we could help, restoring a pile of wind-downed transformers became a priority.

"After a storm that big, none of the LPCs have any spares laying around," says Senior Manager Rusty Weaver, PSS Transformer Services. "They're in crisis mode, and we're just helping them rebuild and restock these old transformers so that they're prepared for additional cold weather."

According to Weaver, when a power pole hits the ground, its transformer has to be tested before it can be returned to service. And many times, there's water damage, which requires the transformers to be drained and dried inside giant ovens that are designed to dry powerplant motors.

"The ovens are large enough to drive a forklift in them," Weaver says. "Yeah, Keebler would be impressed with all the cookies we could bake at one time." Once the components are dried and tested, salvageable transformers are rebuilt and then refilled with fresh oil. Of the 61 transformers that were sent to PSS, 45 were refurbished. Weaver expects the last batch of transformers to be shipped to Kentucky in the next few weeks.



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“He Had TVA”: Supporting Impacted Communities Post-Storm

In Mayfield, Kentucky, TVA Customer Relations Manager Brent Powell opens box after box of employee donations sent in response to the recent tornadoes that came through and devastated the area.

“The devastation in this community is still unbelievable,” said Powell, who lives and works near the Mayfield area. “But the response has been amazing. People from all over the country poured into Western Kentucky to provide supplies, food, toys and volunteer hours. TVA employees stepped up in a big way by purchasing items on the amazon wish list which will continue to support the community through the next few months.”

In a matter of days, TVA’s Mayfield customer service center became temporary housing for linemen and emergency personnel, walls stacked with donations for the community, such as pallets of water and food, piles of blue tarps and a collection of hammer and nails to protect people’s homes — those that still had a home to go back to.

TVA fully restored power to our customers within five days and continues to provide resources and support to the hardest hit areas. The north region customer and community relations staff have been working to identify the needs of families through Emergency Management donation sites and Family Resource & Youth Service centers throughout the region.

“With the regional focus, our team was able to act quickly, not only to repair damaged transmission lines, but also to get boots on the ground connecting with customers, local officials and the community. We were able to get real-time feedback on what was needed where and when, so TVA’s resources were put right where they were needed,” said Vice President of the North Region, Justin Maierhofer.

“I can’t thank my brothers and sisters at TVA enough for their contribution to my community in its time of need,” said Powell.



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ATVG is a 501(c) (4), not-for-profit, public interest
organization.

ATVG advocates for the interests of county and
city/town governments residing within the seven
state TVA region and their partners in the public
and private sectors.