

Energy Communities Alliance
Aiken, S.C.
May 18, 2015

The Energy Communities Alliance met in Aiken, South Carolina in mid-May for a Peer Exchange on Advancing Nuclear Priorities. Assistant Secretary Pete Lyons, PhD. of the DOE Office of Nuclear Energy discussed issues of both the front-end and back-end of the fuel cycle, including steps to develop interim storage, site a repository for defense high-level waste and advancing new nuclear technologies.

Roane County Executive Ron Woody facilitated the second discussion titled, "Update: The Pursuit of SMRs (Small Modular Reactors) and Advanced Reactors." Woody gave a historical perspective of TVA's energy policies and practices which is summarized as follows:

"TVA is the nation's largest public power provider. TVA is a corporation of the U.S. Government but takes no federal appropriations. TVA was established in 1933 and currently serves over 9 million people.

I serve as the current president of the Association of Tennessee Valley Governments (ATVG), an organization similar to ECA which works with TVA and comments on various TVA policies. TVA serves most of Tennessee and parts of Alabama, Georgia, Kentucky, Mississippi, North Carolina and Virginia.

DOE and TVA coordinate in the region around the DOE-Oak Ridge facilities. DOE-Oak Ridge hosts the Oak Ridge National Lab, Y-12 National Security Complex and the former K-25 uranium enrichment facility. Due to the energy demands of DOE-Oak Ridge, in this region TVA has assets including:

- Bull Run Fossil Plant- 6 billion kilowatts/year to 400,000 homes; 1 mile north of ORNL
- Kingston Fossil Plant- 8 billion kilowatts/year to 540,000 homes; 4-8 miles west of ORNL & 2-4 miles west of K-25
- Watts Bar Nuclear Plant- 1100 megawatts to 650,000 homes; 20-40 miles southwest of ORNL

Between Bull Run and Kingston Fossil Plants rests 1364 acres of the former planned Clinch River Breeder Reactor Site approved for plans in 1970 funding, but funding terminated in 1983.

Since ORNL houses the world's fastest computer system which requires huge amounts of energy to run and cool the computer, TVA partnered with B&W Bechtel to propose an M-powered SMR. As Director Lyons previously mentioned, the M-power reactor project has been terminated. However, TVA continues to seek EPA approval for using the Clinch River site for an SMR or other type of advanced nuclear reactor.

TVA's integrated resource plan includes: hydro, fossil, nuclear, gas, renewable, energy efficiency, and pump and store. The integrated resource plan portfolio continues to change and SMRs or other advanced reactor technologies are being considered.

Watts Bar Unit 1 construction began in 1973 and became operational in 1996. Unit 2 began in 1973, was suspended in 1988, restarted in 2007 and is scheduled to go on-line in December of this year. Watts Bar Unit 1 was the last nuclear reactor to go on-line in the last century and Watts Bar Unit 2 is scheduled to be the first nuclear reactor to go on-line in this century.

Woody then turned the program over to Doug McCuiston, Chief Operating Office, X-Energy, LLC, who discussed SMRs and Advanced Nuclear Reactors.

Energy Communities Alliance is the organization of local governments that are adjacent to or impacted by Department of Energy (DOE) activities. Our board members include elected officials and administrators from local governments impacted by DOE.

ECA's mission is to bring together local government officials in Department of Energy-impacted

communities to share information, establish policy positions, and advocate community interests in order to effectively address an increasingly complex set of environmental, regulatory, and economic development needs.

Ron Woody serves as secretary on the ECA board.