

INTERIM JOINT COMMITTEE ON NATURAL RESOURCES AND ENERGY

Minutes of the 4th Meeting of the 2026 Interim

September 3, 2026

Call to Order and Roll Call

The fourth meeting of the Interim Joint Committee on Natural Resources and Energy was held on September 3, 2026, at 1:00 PM ET/12:00 PM CT in Room 154 of the Capitol Annex. Senator Brandon Smith, Chair, called the meeting to order, and the secretary called the roll.

Present were:

Members: Senator Brandon Smith, Co-Chair; Representative Jim Gooch Jr., Co-Chair; Senators Gary Boswell, Keturah J. Herron, and Robin L. Webb; and Representatives Shane Baker, Jared Bauman, John Blanton, Adam Bowling, Beverly Chester-Burton, Patrick Flannery, Chris Fugate, Erika Hancock, DJ Johnson, Bobby McCool, Adam Moore, Tom Smith, Joshua Watkins, Bill Wesley, Mitch Whitaker, and Richard White.

Guests: Jian Shi, Ph.D., Professor, Biosystems and Agricultural Engineering, Martin-Gatton College of Agriculture, Food and Environment, University of Kentucky (UK); David Kinloch, President, Appalachian Hydro Associates; and Rodney Andrews, Ph.D., Director, Center for Applied Energy Research, UK.

LRC Staff: Stefan Kasacavage, Kayla Carroway, Tanya Monsanto, and Rachel Hartley.

Approval of minutes for the meeting of August 6, 2026

A motion was made by Representative Johnson, and seconded by Representative Bauman, to approved the minutes of the August 6, 2026, meeting. Minutes were approved by voice vote without objection.

Consideration of Referred Administrative Regulations

A motion was made by Representative Blanton and seconded by Representative Johnson to approve the administrative regulation, 301 KAR 001:201, as amended by the agency amendment offered by the Department of Fish and Wildlife Resources. The motion passed without objection.

A motion was made by Representative Johnson and seconded by Representative Bauman to approve the administrative regulation, 301 KAR 002:178, as amended by the

agency amendment offered by the Department of Fish and Wildlife Resources. The motion passed without objection.

Innovative strategies to control microplastic waste

Jian Shi, Ph.D., Professor, Biosystems and Agricultural Engineering, Martin-Gatton College of Agriculture, Food and Environment, UK, outlined how green, plant-derived solvents can be used to potentially extract up to 95% of microplastics from water. Dr. Shi stated UK researchers are working toward understanding and eventually translating this into a practical technology.

In response to Representative Blanton, Dr. Shi discussed integrating the technology into existing wastewater treatment facilities. Dr. Shi stated microplastics can be found in municipal solid waste and plastic water and wastewater piping could also be a microplastics source.

In response to Representative Moore, Dr. Shi discussed integrating this plant-derived solvent technology into existing systems.

In response to Representative Bauman, Dr. Shi discussed the regulations and policies regarding microplastics in the European Union.

In response to Representative Johnson, Dr. Shi stated the research does include other plants, not just mint and thyme.

In response to Senator Boswell, Dr. Shi stated a combination of factors causes the breakdown of discarded plastic materials, which leads to microplastics in the environment.

Chair Smith discussed the broader regulatory and industry complications of addressing the prevalence of microplastics in the environment.

Representative Smith urged the research at UK to include filtration technologies for per- and polyfluoroalkyl substances (PFAS) and solutions for disposal.

Low-impact, small-scale hydroelectric power developments

David Kinloch, President, Appalachian Hydro Associates, provided an overview of hydroelectric power, including its history, its role as an electric grid-balancing resource, and the types of hydroelectric power available. Mr. Kinloch highlighted recent and near-term projects on the Kentucky River and discussed barriers to broader deployment.

In response to Chair Smith, Mr. Kinloch stated the Matilda Hamilton Fee hydroelectric plant on the Kentucky River generates 2.64 megawatts of electricity. The power is sold to the Jackson Energy Cooperative at 6% below their wholesale costs.

In response to Representative Baker, Mr. Kinloch discussed the main barriers to developing hydroelectric plants, including lengthy federal permitting requirements and loss of state financial incentives.

In response to Senator Herron, Mr. Kinloch stated the federal bureaucracy and permitting timelines are the major obstacles to developing more hydroelectric plants.

In response to Representative Chester-Burton, Mr. Kinloch stated utility-scale battery manufacturing in the United States is increasing.

In response to Representative Hancock, Mr. Kinloch discussed how run-of-river hydroelectric plants have trouble operating in drought and extreme weather and stated newer plants use submersible turbine designs that help alleviate those problems.

Applications for power storage for data centers

Rodney Andrews, Ph.D., Director, Center for Applied Energy Research, UK, discussed the rapid rise of data center electricity demand and the evolving role of energy storage. Dr. Andrews provided an overview of a tiered approach to energy storage and addressed supply chain issues and cost.

In response to Representative Moore, Dr. Andrews stated the cost for battery storage has fallen rapidly due to scale and market growth, which enables broader deployment.

In response to Representative McCool, Dr. Andrews discussed battery life and stated lithium batteries are hazardous and require specialized facilities for recycling.

In response to Senator Herron, Dr. Andrews explained that many data centers use closed-loop liquid cooling systems. He also described how a large insulated tank of chilled water can supply brief cooling when other systems fail to avoid overheating while backup systems start. The chilled water tank size depends on the data center's scale and cooling design.

Adjournment

There being no further business, the meeting was adjourned.