

DRAFT MINUTES
JOINT INTERIM COMMITTEE ON ENERGY
University of Arkansas • Hope, Hempstead Hall, Fulton Room
2500 South Main, Hope, Arkansas
Wednesday, March 16, 2016

EXHIBIT B

The Joint Interim Committee on Energy met at 9:30 a.m. Wednesday, March 16, 2016, at the University of Arkansas • Hope, Hempstead Hall, Fulton Room, 2500 South Main, Hope, Arkansas.

Committee members present: Senator Jimmy Hickey, Jr.; Representatives Bob Ballinger, Co-Chairman; Rick Beck, Vice Chair; Jack Ladyman and Brent Talley.

Alternate members present: Representative Ken Bragg.

Also attending: Representatives Justin Gonzales, Kenneth Henderson, Stephen Meeks and Marcus Richmond.

Representative Ballinger called the meeting to order.

Representatives Ballinger and Talley welcomed members and guests.

Mr. Chris Thomason, Chancellor, University of Arkansas • Hope-Texarkana (UAH-T), was recognized and noted in 2008, a public/private partnership began with American Electric Power-Southwestern Electric Power Company whereby the company provided a \$1 million donation to the college's foundation. This was for development and creating a scholarship program to help train a workforce qualified for employment at the new \$1.8 billion John W. Turk, Jr. Power Plant being constructed in Fulton, Arkansas.

The Power Plant Technology Associate Degree Program is a ladder program offering four degree options: Power Plant Operations, Electrical and Instrument Tech, Welding, and Machinist. It has 111 graduates, and ½ of the power plant's 150 employees are UA-Hope graduates. The college is beginning a technical/industrial relationship with Hope and Texarkana high schools. **[Pwr Point Presentation C]**

CONSIDERATION TO APPROVE MEETING MINUTES**[EXHIBITS D-1, D-2]**

Representative Ladyman made a motion to approve the September 10, 2015, and September 11, 2015, meeting minutes. The motion was seconded by Representative Talley, and without objection, the motion carried.

Mr. Duane Highley, Chief Executive Officer, Arkansas Electric Cooperatives, was recognized and stated the co-op is a regulated utility that operates power plants and transmission facilities for 17 member-owned systems across the state. He serves as Co-Chairman of the Electric Subsector Coordinating Council which was created by Presidential directive following the 9/11 attacks to coordinate a public/private partnership of electric utility CEOs with the highest levels of government. The council meets routinely with cabinet-level staff of the Department of Energy, Department of Defense (DOD), Department of Homeland Security (DHS), National Security Agency, FBI, and the White House to discuss energy policies related to security, reliability, and resiliency for recovery time from attacks, disasters or threats. The most recent are cyber threats due to computer dependency. Of the 16 critical infrastructures the DHS tracks, 14 rely on electricity to perform transactions such as banking, clean water, fuels, and transportation. The goal of the international holy war and nation states is to bring down North American electrical grids and glorify Allah. Mr. Highley noted the following:

- Russia and China know how to bring down the U.S. grid and the U.S. knows how to bring down theirs. The DOD has specific plans in place for bringing down other nations' grids, wherever for however many days, weeks, months, or years. There is a Mutually Assured Destruction Doctrine in place, so Russia or China will not do something to cause retaliation, but North Korea is an unknown factor.
- In November 2015, Russia sent a phishing email to the utilities in Ukraine with an attached "Word" document. When the document was opened it downloaded a virus which sat for weeks. That attachment was replicating itself across other computers within the utilities and watched for log in passwords, sending them back to Russia. Those log in credentials were used to take control of the supervisory systems that operate breakers and substations. Power was interrupted to 103 Ukraine cities causing massive black outs and erasing the hard drives. The system operators could not control anything.
- People with simple tools from Home Depot could quite easily take down the grid. The infrastructure is not guarded. He asks folks to call local law enforcement if they see suspicious activity.

Mr. Highley addressed Representative Meeks' concerns regarding solar disturbances, noting the greatest impact of geomagnetic disturbances are in the northern latitudes, so Canada is at more risk than Arkansas. Advances allow solar storm prediction to isolate the power flow to the grids and reduce damage in response to a disturbance.

He concluded that there is a lot of redundancy in the grid, and this is the first line of defense. Every other year there is a national grid emergency simulation with federal and state counterparts. Arkansas is a leader in being prepared due to public/private partnerships. At this time, there are no state policy issues to address. The need is for public and private cooperation, not additional regulation.

Ms. Barbara Sugg, Vice President of Information Technology and Chief Security Officer, Southwest Power Pool (SPP), stated SPP is a reliability coordinator for 14 states and manages transmissions to ensure constant power for plants and to know what is happening with distribution at any given time. SPP also manages a wholesale energy market. The company employs roughly 600 people with ¼ of them working in information technology. They require a 2-factor authentication to enter SPP buildings and systems. They block international traffic into their systems and monitor all suspicious activity including employee patterns to ensure security and compliance.

Mr. Gary Hayes, Senior Vice President and Chief Information Officer, CenterPoint Energy, was recognized and noted the company provides gas services to 229 Arkansas communities. Understanding cyber security governance is crucial to providing reliable and safe distribution. The National Institute of Standards and Technology is a framework of security for science and technology. The framework focuses on how to identify, protect, detect, respond and recover the systems, and this applies to all aspects of the industry. He also noted that there is a need for cyber work employees. It is a good job market. **[Pwr Point Presentation E2]**

Mr. Stan Partlow, Vice President and Chief Security Officer, American Electric Power (AEP), explained risk is a product of threat, consequence and vulnerability. The most effective security is grid resiliency. Replacement parts are expensive and can be difficult to manufacture. It is important to obtain a balance between efficiency and effectiveness with the lowest amount of risk. AEP is partnering with 7 other utility companies to establish Grid Assurance that is currently being reviewed by the Federal Energy Regulatory Commission with the objective to purchase and store equipment in secure locations across the U.S. for emergency needs. **[Pwr Point Presentation E3]**

Representative Ballinger noted the Clean Power Plan is in the District of Columbia Court of Appeals. The Arkansas Department of Environmental Quality and Public Service Commission have put further work on hold until there is a court ruling.

There being no further business, the meeting adjourned at 12:02 p.m.

Legislators and guests toured the John W. Turk, Jr. Power Plant after the meeting.