

MINUTES
JOINT INTERIM COMMITTEE ON ENERGY
State Capitol, Room 149, Little Rock, Arkansas
Thursday, April 19, 2012

The Joint Interim Committee on Energy met Thursday, April 19, 2012, at 3:00 P.M. in Room 149 of the State Capitol in Little Rock, Arkansas.

Committee members present: Senators Kim Hendren, Co-Chair; Jimmy Jeffress, Vice-Chair; Gene Jeffress, and Jerry Taylor. Representatives Tiffany Rogers, Co-Chair; David Branscum, Vice-Chair; Jerry R. Brown, John Burris, Larry Cowling, Matthew Shepherd, Garry L. Smith, Gary Stubblefield, and Charolette Wagner.

Alternate members present: Representatives Linda Collins-Smith, Kim Hammer, and Andrea Lea.

Also attending: Representative Homer Lenderman.

Senator Hendren presided and recognized Representative Rogers for remarks.

CONSIDERATION TO APPROVE DECEMBER 15, 2011, MEETING MINUTES [EXHIBIT D]

Representative Branscum made the motion to approve the December 15, 2011, meeting minutes. Senator Taylor seconded the motion, and the motion carried.

OUTLOOK FOR ENERGY: A VIEW TO 2040

Mr. Todd Onderdonk, Senior Energy Advisor, ExxonMobil, presented a PowerPoint entitled, "Outlook for Energy: A View to 2040" [ATTACHMENT 1] and said ExxonMobil predicts the worldwide energy demand will increase 30% by 2040.

For 50 years, ExxonMobil has performed energy outlooks to answer these questions:

- How much energy will the world need?
- Where will the energy be required?
- What types of energy will meet the peoples' needs?

The answers form the foundation for business strategies and investments.

The world's population drives energy needs. Today's population is 7 billion; in 2040, it will be 9 billion. The U.S. population is aging and slightly growing. China's population is reaching a plateau at 1.4 billion, and the number of working age people will decline. This will affect China's ability to grow their economy rapidly as they do today. Energy demands in India and Africa will increase, and the regions will become significant players in the energy world. Technology advances will create efficiency gains, and the energy demand will stay stable while the economy grows.

There are 800 million cars in the world today. Mr. Onderdonk noted in 2040, China will have about 400 million cars. Hybrid cars will penetrate the market, and the number of gasoline and diesel vehicles will decline. ExxonMobil predicts that mandates will require manufacturers to increase fuel economy to 54 miles per gallon (mpg) by 2040, and the transportation fuel demand will shift towards diesel.

Mr. Onderdonk said ExxonMobil expects the worldwide electricity demand will increase 80% by 2040. Studies indicate that CO₂ emissions will plateau by 2030, and ExxonMobil expects wind capacity to increase 500%, and solar to increase 900% by 2040. Wind, solar, and biofuels will provide 4% of the world energy mix. The company estimates that at today's demand level, the U.S. has about 100 years of natural gas supply. The International Energy Agency estimates that worldwide, there is enough natural gas to meet energy demands for about 250 more years.

When asked about new refineries, Mr. Onderdonk said he is not aware of any companies that are building new refineries in the U.S. The number of refineries in the country has decreased from 350 to 150 or less. About four

years ago, ExxonMobil invested in long-term research that uses algae as a fuel source, but the product does not have any potential for commercial viability in the near future.

Mr. Onderdonk said ExxonMobil's total capital budget is around \$37 billion. Representative Hammer said he would like to see ExxonMobil make an investment in Arkansas lignite research.

THE PLAINS AND EASTERN CLEAN-LINE

Ms. Kim Randle, Regional Outreach Manager, and Mr. Mario Hurtado, Executive Vice President of Development, Clean Line Energy Partners (CLEP), presented a PowerPoint entitled, "Plains & Eastern Clean Line" [ATTACHMENT 2]. Ms. Randle said the U.S. Plains Region enjoys the best contour wind anywhere in the world. CLEP currently has 700 miles of wind-power transmission lines in development. Private investors fund the company, and they are not seeking any state or federal funding.

Energy systems have three primary sectors: generation, transmission, and distribution. CLEP focuses on "transmission" to connect wind resources to load-serving entities. It employs direct current (DC) technology, rather than alternating current, because DC transmission delivers energy more efficiently and requires fewer infrastructures. Of its four projects under development, The Plains and Eastern Clean Line (TPECL) affects Arkansas. This line will be capable of transmitting 3,500 megawatts of electricity (the equivalent of about three nuclear power plants). The line will begin in the Oklahoma panhandle and will connect to the grid in Texas County, Oklahoma and northeast of Memphis. TPECL will create more than 10,000 jobs during construction and more than 1,000 jobs during operation. Ms. Randle said construction should begin in 2014; and they intend to energize the line in 2017.

There are more than 15 wind-energy related companies in Arkansas. Mr. Hurtado said CLEP utilizes local resources in the supply chain. Malvern's General Cable employs 150 - 200 people and will manufacture conduction wire for TPECL. CLEP engages local contractors, such as Fluor and Pike, for basic civil construction. He noted that CLEP's main constituents are landowners from whom they have to acquire the right of way. It is essential for the company to use as little space as possible and interact flexibly with landowners. CLEP shares plans with organizations like Arkansas Farm Bureau and the Arkansas Cattlemen's Association to ensure the transmission line is an additional source of revenue for the landowner, and the land remains productive.

The company is fully engaged in gathering permits and permissions for TPECL, and they expect the process to continue for two to three years. They plan to use the National Environmental Policy Act to move forward with the environmental review and federal programming.

In response to a question from Representative Wagner, Mr. Hurtado noted it would be helpful if federal and state electric power regulations were simpler and focused more on transmission.

Mr. Hurtado said new wind generators in this part of the country are signing contracts for about 3¢/kWh. It will cost CLEP about 2¢ - 2.5¢/kWh to transmit and deliver the energy.

Representative Rogers said the next meeting is May 17, 2012.

With no further business, the meeting adjourned at 4:35 p.m.