INTERIM JOINT COMMITTEE ON NATURAL RESOURCES AND ENERGY

Minutes of the 4th Meeting of the 2020 Interim

September 17, 2020

Call to Order and Roll Call

The 4th meeting of the Interim Joint Committee on Natural Resources and Energy was held on Thursday, September 17, 2020, at 1:00 PM, in Room 171 of the Capitol Annex. Representative Jim Gooch Jr., 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 C.B. Embry Jr., Reginald Thomas, Johnny Ray Turner, Robin L. Webb, and Phillip Wheeler; Representatives John Blanton, Adam Bowling, Terri Branham Clark, R. Travis Brenda, Randy Bridges, Myron Dossett, Jim DuPlessis, Chris Fugate, Cluster Howard, Derek Lewis, Suzanne Miles, Melinda Gibbons Prunty, Josie Raymond, Cherlynn Stevenson, Jim Stewart III, Richard White, and Rob Wiederstein.

Guests: Rodney Andrews, Ph.D., Director, Center for Applied Energy Research, University of Kentucky.

LRC Staff: Stefan Kasacavage, Janine Coy, Tanya Monsanto, and Rachel Hartley.

Instability in the Energy Markets During the Pandemic: Demand, Pricing, and Forecast

Dr. Rodney Andrews stated that overall energy demand has dropped significantly with the economic slowdown, and demand has reached its lowest level since 1989. Both electricity and petroleum are affected. There are some positive indicators due to the shift from commercial and industrial usage and increased residential demand.

Petroleum consumption reached record lows in April 2020, which is significantly lower than the levels during the 2008 recession. Natural gas consumption was stable compared to other fuels due to fuel switching in electricity production and provided 39 percent of electricity generation in April 2020. Electric power consumption decreased, but there was an 8 percent increase in residential use. The energy burden was shifted from commercial and industrial sectors to residential due to consumers working from home.

Crude oil and liquid fuels production decreased in the beginning of March due to reduced demand. Worldwide petroleum storage was full and the Organization of the Petroleum Exporting Countries (OPEC) was still producing oil because reductions were not implemented until June. The demand for gasoline decreased significantly with reduced consumer travel; however, distillate demand remained fairly stable. Refiners switched from gasoline to distillate due to shifting demand for refined gasoline. Almost half of reduction for liquid fuels was due to decreased gasoline consumption when consumers began working from home and employment fell. The demand is predicted to recover as employment increases.

Refinery margins are recovering, and the prices for gasoline and diesel are converging. The difference in petroleum price and the refined product price for diesel and gasoline are coming back to parity.

There is a record low number of passenger flights, which caused a 43 percent decrease in jet fuel consumption.

In April 2020, coal demand was the lowest since tracking began in 1973 by the United States Energy Information Administration. Consumption was 27 percent lower than April 2019. Nearly all of the decline was due to reduced demand for coal in the power sector because of lower electricity demand, cheap natural gas, and fuel switching. Export markets for coal remain soft. Coal production is forecasted to increase 6 percent due to higher natural gas prices. Production in the Appalachian region is not projected to recover in proportion to its losses in 2020. Coal plants are running at 50 percent or less capacity. Coal-fired plants are not being used for baseload generation and are being powered on and off, as demand for electricity and prices shift.

In April 2020, the price of petroleum futures was negative due to very high worldwide production. World storage was saturated, and the demand for crude oil decreased due to the slowing economy. There was also a weakened demand for refined petroleum products. In April 2020, the US Oil Fund held approximately 25 percent of the crude oil futures for the month of May. These futures required the sale or delivery of crude oil by April 21, 2020. Traders, who normally do not own any storage capacity, would be forced to take the deliveries of crude oil. Normally, to take the oil traders would attempt to roll forward the delivery date to the next month; however, there were no buyers to take the oil due to low storage capacity and low international demand. Traders began paying others to physically take the oil which caused the futures price to go negative. This has never happened before.

In response to Senator Embry, Dr. Andrews stated there were no significant drops in solar or wind production, because they are passive generation.

In response to Representative Gooch, Dr. Andrews stated Kentucky does not have any new electric generating units planned, but an existing plant is projected to be upgraded for conventional hydro-electric production. The main generating units are not changing. Kentucky has enough generating capacity to meet the energy demand, and projected energy demand, when the economy recovers.

In response to Representative Gibbons Prunty, Dr. Andrews stated the coal-fired power plants are not operating baseload generation. The plants are not operating at 80 or 90 percent; instead the plants are being turned off and on.

Representative Gibbons Prunty stated that coal is an important component of Kentucky's energy mix that helps keep the price of natural gas low. Dr. Andrews responded that coal and nuclear should be part of the energy mix to stabilize the grid.

In response to Senator Thomas, Dr. Andrews stated the utility companies in Kentucky have invested in solar energy generation. There are no economic drivers to invest in more solar energy generation, because the price of natural gas is low. There is technology to capture and scrub carbon dioxide to keep greenhouse gas emissions low.

In response to Senator Wheeler, Dr. Andrews stated the subsidies and tax incentives that renewable energy receives from the government vary state by state. There are subsidies and tax incentives in Kentucky; however, neither are not as significant as they once were.

There being no further business, the meeting was adjourned.