

INTERIM JOINT COMMITTEE ON NATURAL RESOURCES AND ENERGY

Minutes of the 5th Meeting of the 2020 Interim

October 22, 2020

Call to Order and Roll Call

The 5th meeting of the Interim Joint Committee on Natural Resources and Energy was held on Thursday, October 22, 2020, at 1:00 PM, in Room 171 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 C.B. Embry Jr., Robby Mills, John Schickel, Reginald Thomas, Johnny Ray Turner, Robin L. Webb, Whitney Westerfield, and Phillip Wheeler; Representatives Charles Booker, Adam Bowling, Terri Branham Clark, R. Travis Brenda, Randy Bridges, Myron Dossett, Jim DuPlessis, Daniel Elliott, Chris Fugate, Cluster Howard, Derek Lewis, Suzanne Miles, Melinda Gibbons Prunty, Josie Raymond, Cherlynn Stevenson, Jim Stewart III, Richard White, and Rob Wiederstein.

Guests: Carson Harkrader, CEO, Carolina Solar Energy; Cari VanAmburg, Manager, Policy and Government Affairs, Recurrent Energy; and Michael Baute, Director of Regenerative Energy and Land Management, Silicon Ranch.

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

Update on Solar Energy in Kentucky

Carson Harkrader stated she is the CEO and owner of Carolina Solar Energy (CSE) based in North Carolina that develops utility scale solar projects. There are currently 40 projects that produce 500 megawatts in North Carolina and there are five solar projects in Kentucky. CSE focuses on engaging landowners, applying for permits, and environmental and cultural reviews.

The main economic drivers of solar energy are the cost, which has been decreasing, and the efficiency, which has been increasing. There is more corporate and utility demand to add solar to the energy mix.

Each solar project will pay over one million dollars in new county property taxes over the first 20 years of its operation. The solar projects bring jobs to local communities in rural areas. The jobs do not require any significant specialized training or education.

All of the projects start with an individual landowner signing a 40-year lease. The landowners profit three times or more by investing in solar energy than if they leased their land for farming uses.

In response to Senator Smith, Ms. Harkrader stated battery storage technology for solar energy is becoming more efficient. Most new solar projects will have battery storage planned into the project.

In response to Representative Gooch, Ms. Harkrader stated 6 to 10 acres is needed to produce one megawatt of solar energy.

In response to Representative DuPlessis, Ms. Harkrader stated the duck curve is real and is seen mostly in California. The price of batteries is dropping faster than anticipated, and CSE projects going into production in 2023 have batteries planned into them.

In response to Senator Wheeler, Ms. Harkrader stated there has been no impact on property values when a solar farm is built near residential areas. The panels are low profile, and they do not make noise, have any odor, or generate heat.

Cari VanAmburg stated Recurrent Energy (RE) is a leading utility-scale solar developer with projects across the United States. Since 2006, RE has completed development and construction of over 70 projects and is currently in the early stages of development on a project in Kentucky.

When RE locates a potential site for a solar project, they work with the local community to identify willing landowners. Projects typically range from 50 to 200 megawatts in size and require 1,000 to 2,000 acres of land. The land is leased from the landowner in return for annual payments for the life of the project. The projects are developed on farmland, pasture land, and timber ground. Recently, developers are exploring solar projects on reclaimed mine land. The development of the land can last 3 to 5 years. Each site is screened by RE and identifies any natural, cultural, or environmental issues that would prevent a project from going forward. When it is determined the project will go forward, the plans are submitted to Kentucky's Electric Generation and Transmission Siting Board. Environmental issues, economic impact, and the impact on the electrical grid are considered by the board.

In response to Senator Wheeler, Ms. VanAmburg stated solar power purchase agreements are 15 to 25 years, and the solar panels are being warrantied up to 35 years. There are decommissioning agreements with a bond and surety for each project.

Regenerative Energy: Making Solar Do More

Michael Baute stated Silicon Ranch owns and operates over 135 solar facilities in 15 states. Silicon Ranch views land and vegetation as a valuable natural resource that can be harnessed to sequester carbon and restore biodiversity. Reducing carbon emissions by producing clean solar energy and keeping land in agricultural production will help meet the global food demands of the future.

The solar industry should design multi-functional properties on the vast amounts of land that operate solar farms. The co-location of agriculture and energy creates a unique symbiosis where the solar modules create protection for livestock.

Silicon Ranch has developed a customized methodology to assess and capture the full value of environmental, economic, and social impacts. The method yields a report that forecasts the expected outcomes of a project.

In response to Senator Thomas, Ms. Harkrader stated the process through Kentucky's Electric Generation and Transmission Siting Board is very detailed and gives the local community and the Public Service Commission input regarding the projects. There are no state incentives for solar energy projects, but there are corporate incentives in Kentucky. Ms. VanAmburg stated there is a good market for solar energy in Kentucky.

In response to Senator Webb, Mr. Baute stated Shell Oil owns 43 percent of Silicon Ranch. Silicon Ranch typically purchases the land, but not all of the land is developed for solar. The solar arrays are individually fenced which leaves wildlife corridors or movement. Silicon Ranch is currently undergoing wetland and stream mitigation in Colorado and exploring wetland restoration in Georgia. There is fencing that does prevent wildlife movement, but the land is ranched in a specific way to accommodate wildlife. The solar projects coupled with agriculture, aim to mimic the way the natural environment would impact the ecosystems and to improve the habitats on ancillary lands.

Senator Webb stated part of the criteria for siting should be public access for hunting and fishing.

There being no further business, the meeting was adjourned.