SENATE CONCURRENT RESOLUTION NO. 1–SENATORS SPEARMAN, BROOKS, DENIS, PARKS; D. HARRIS, OHRENSCHALL, RATTI AND WOODHOUSE

FEBRUARY 18, 2019

Referred to Committee on Legislative Operations and Elections

SUMMARY—Directs the Legislative Committee on Energy to conduct an interim study concerning the development of renewable energy and clean energy resources in this State. (BDR R-117)

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EXPLANATION – Matter in ***bolded italics*** is new; matter between brackets **[**~~omitted material~~**]** is material to be omitted.

SENATE CONCURRENT RESOLUTION—Directing the Legislative Committee on Energy to conduct an interim study concerning the development of renewable energy and clean energy resources in this State.

WHEREAS, A renewable energy and clean energy resources program administered by appropriate state and local agencies in this State has the potential to unleash the vast clean energy resources in this State and put Nevada at the forefront of renewable energy and clean energy development as a primary means of achieving energy independence; and

WHEREAS, The foundation of such a program is rooted in Nevada's expansive and, to date, largely untapped potential for renewable energy and clean energy resources, including, without limitation, Nevada's underdeveloped geothermal resources, which are more substantial than in any other state, Nevada's large deposits of lithium, which are currently the only deposits producing lithium for use in the United States, and Nevada's potential for additional development of solar energy, low-temperature geothermal, waste heat to power, combined heat and power, energy storage technology and other clean energy resources which may be identified in the future; and

WHEREAS, Geothermal energy has the smallest carbon footprint of any form of renewable energy and can be used across a wide spectrum of temperatures, including lower temperatures capable of

providing direct-use applications, such as heat for public facilities, homes, greenhouse agriculture and vegetable dehydration, and higher temperatures that can produce electricity; and

WHEREAS, Lithium is critical to the burgeoning electric automobile industry and for battery technology in general, with a wide array of applications for all forms of renewable energy and clean energy; and

WHEREAS, Systematic studies are needed to locate these renewable energy and clean energy resources, to analyze the feasibility, both technical and economic, of developing such resources, to determine the best methods for extraction of such resources and to determine if initial support is needed to assist entrepreneurial industries to develop such resources; and

WHEREAS, Studies are needed to understand the full potential of solar energy and its potential relationship with other forms of renewable energy, including, without limitation, enhancing geothermal energy output and determining whether the utilization of solar energy is incentivized by state and local building codes; and

WHEREAS, The implementation of cost-effective energy efficiency measures by state agencies in this State has the potential to save energy costs for the State of Nevada and protect and improve the environment in this State; and

WHEREAS, The conduct of a statewide audit to identify cost-effective energy efficiency measures for implementation by state agencies will enable the State of Nevada to realize the cost savings and environmental benefits of energy efficiency measures; now, therefore, be it

RESOLVED BY THE SENATE OF THE STATE OF NEVADA, THE ASSEMBLY CONCURRING, That the Legislative Committee on Energy shall conduct an interim study of the assessment and development of the renewable energy and clean energy resources available in this State with the goal of achieving energy independence and facilitating economic diversification in this State; and be it further

RESOLVED, That the study include consideration of methods to increase the opportunities for students in this State to study subjects related to renewable energy and clean energy at community colleges and universities in this State; and be it further

RESOLVED, That, in conducting the study, the Legislative Committee on Energy shall partner or consult with representatives of the Nevada System of Higher Education to examine ways to improve the training of workers in the renewable energy and lithium extraction industries, including, without limitation, ways to improve the training of workers to develop, construct, improve, maintain and repair renewable energy and lithium extraction facilities and

systems and the components of those facilities and systems, including, without limitation, artificial intelligence used in those facilities and systems; and be it further

RESOLVED, That, as part of the study, the Legislative Committee on Energy may, if feasible, enter into a contract or other agreement with the University of Nevada, Reno, the University of Nevada, Las Vegas and the Desert Research Institute for the gathering of data concerning the assessment and development of renewable energy and clean energy, and a cost-benefit analysis of the various sources of supply of energy, including, without limitation, natural gas plants, geothermal facilities, solar resources, combined heat and power, waste heat to power and demand-side energy conservation resources, from obtaining the energy to the delivery of the energy or energy services to the end-user of the energy; and be it further

RESOLVED, That the study include the feasibility of using renewable energy resources, clean energy resources and the lithium resources in this State for various applications including, without limitation, consideration of:

1. The potential for converting existing mines into clean energy resources;

2. The potential for using direct-use geothermal energy in universities, governmental offices, prisons and other major public facilities in Nevada;

3. Methods for incentivizing the use of renewable energy resources, including on-site energy generation, in the construction of new homes and buildings;

4. Economic and regulatory barriers preventing maximum implementation of clean energy resources including, without limitation, barriers to fully utilizing existing disturbed lands as locations for clean energy resources;

5. The potential for developing geothermal resources for individual mines and mining districts;

6. The potential for the mining of heat from rocks for engineered geothermal systems in this State, including using the site in Fallon, Nevada, previously considered as the site for the Frontier Observatory for Research in Geothermal Energy (FORGE) laboratory by the United States Department of Energy;

7. The potential for locating clean energy facilities on existing brownfield sites and other previously disturbed lands such as disused landfills, mines and former industrial sites;

8. Methods for the acquisition of light detection and ranging (LiDAR) data, which is high resolution topographic data that may provide critical information on the distribution of faults and rock layers that host renewable energy resources;

9. Methods for the acquisition of new, detailed geologic and energy resource potential maps, including three-dimensional maps, to help identify areas with the greatest potential for development of geothermal and lithium resources;

10. Methods for implementing micro-grids, distributed generation and off-grid developments to innovate and increase the resiliency of the electric power grid, while reducing the losses inherent to transmission on the electric power grid;

11. The development of infrastructure and support for staff, including, without limitation, laboratories, geoscientists, data managers, web specialists, engineers and economists at state agencies and components of the Nevada System of Higher Education to facilitate implementation of a renewable energy and clean energy resources program in this State; and

12. Any other matter that the Committee determines is relevant to the study; and be it further

RESOLVED, That the study propose a framework for engaging in damage mitigation and land revitalization for the purpose of locating clean energy facilities on existing brownfield sites and other previously disturbed lands; and be it further

RESOLVED, That the study include economic models, including input and output modeling utilizing IMPLAN or comparable economic modeling tools, that explain potential economic impacts to this State:

1. As the State uses energy more productively through the implementation of cost-effective energy efficiency measures and programs;

2. From the reduction of energy imports from outside of the State including, without limitation, the reduction of imports of fossil fuels, including natural gas, petroleum, propane gasoline or other fossil fuels, as Nevada develops its indigenous energy resources;

3. From the reduction of imports of transportation fuels due to the increased use of electric transportation or the use of other alternative fuels produced in this State, including, without limitation, biofuels; and

4. From the electrification of transportation; and be it further

RESOLVED, That, in conducting the study, the Legislative Committee on Energy shall partner or consult with representatives of the Nevada System of Higher Education, the elementary and secondary education system in this State, the National Renewable Energy Laboratory and the private sector, including, without limitation, the existing renewable energy and lithium extraction industries located in this State, and consider input provided by other stakeholders including, without limitation, clean energy developers,

nongovernmental organizations and professionals with expertise regarding energy transmission and the electric grid; and be it further

RESOLVED, That the Legislative Committee on Energy shall, if feasible, contract with the University of Nevada, Reno, the University of Nevada, Las Vegas and the Desert Research Institute to conduct a statewide audit to identify energy efficiency measures that could be implemented by agencies of the State of Nevada, determine the costs and benefits of those measures, determine the savings that could be realized by the State of Nevada if those agencies implemented the energy efficiency measures identified in the audit and make recommendations for the implementation of energy efficiency measures by those agencies; and be it further

RESOLVED, That the Legislative Committee on Energy shall submit a report concerning the statewide audit to the Legislature and the Governor and provide a copy of the recommendations of the statewide audit to each agency of the State of Nevada; and be it further

RESOLVED, That any recommended legislation proposed by the Legislative Committee on Energy must be approved by a majority of the members of the Assembly and a majority of the members of the Senate appointed to the Committee; and be it further

RESOLVED, That the Legislative Committee on Energy shall submit a report of the results of the study, including, without limitation, any economic models prepared by or for the Committee, a report of any data collected and presented to the Committee concerning the assessment and development of various sources of renewable and clean energy, the potential impacts of the development of such sources of renewable and clean energy and methods for the conservation of energy and any recommendations for legislation to the 81st Session of the Nevada Legislature.

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