

**MINUTES OF THE
SENATE COMMITTEE ON LEGISLATIVE OPERATIONS AND ELECTIONS**

**Eightieth Session
April 17, 2019**

The Senate Committee on Legislative Operations and Elections was called to order by Chair James Ohrenschall at 2:13 p.m. on Wednesday, April 17, 2019, in Room 2144 of the Legislative Building, Carson City, Nevada. The meeting was videoconferenced to Room 4412 of the Grant Sawyer State Office Building, 555 East Washington Avenue, Las Vegas, Nevada. [Exhibit A](#) is the Agenda. [Exhibit B](#) is the Attendance Roster. All exhibits are available and on file in the Research Library of the Legislative Counsel Bureau.

COMMITTEE MEMBERS PRESENT:

Senator James Ohrenschall, Chair
Senator Yvanna D. Cancela, Vice Chair
Senator Marcia Washington
Senator Heidi Seevers Gansert
Senator Keith F. Pickard

GUEST LEGISLATORS PRESENT:

Senator Pat Spearman, Senatorial District No. 1

STAFF MEMBERS PRESENT:

Michael Stewart, Committee Policy Analyst
Diane Rea, Committee Secretary

OTHERS PRESENT:

Angela Dykema, Southwest Energy Efficient Project
Christi Cabrera, Nevada Conservation League
Ray Fakhoury, Advance Energy Economies
Leo Drozdoff, The Nature Conservancy; Albemarle Corporation
Alfredo Alonso, Ormat Technologies Inc.

Chair Ohrenschall opened the hearing on Senate Concurrent Resolution (S.C.R.) 3.

SENATE CONCURRENT RESOLUTION 3: Directs the Legislative Commission to appoint a committee to conduct an interim study relating to the use of electric vehicles in this State. (BDR R-779)

Senator Pat Spearman, Senatorial District No. 1, read her testimony ([Exhibit C](#)). She added one of the things she thinks is instructive is China laid down the gauntlet and said they are hoping to become the No. 1 automaker and seller in the world and would do so by 2030. One in every 4 of their vehicles will be electric vehicles (EVs) or hybrids by 2045. They will not make, sell or lease anything with an internal combustible engine. She said the fact they have said this is what they are going to do makes it more than a presumption. Nevada needs to accept responsibility to be ahead of that curve. One of the things this study will help with is identifying how Nevada needs to structure revenue for roads and other infrastructures while making sure we do not decrease the momentum that has already been gained with EVs.

The purpose of this study is prudent at this time, and she would urge the Committee's support.

Angela Dykema read her testimony ([Exhibit D](#)) adding an explanation of her proposed amendment language ([Exhibit E](#)). She continued with the exhibit during which she mentions the relationship with Assembly Bill (A.B.) 483.

ASSEMBLY BILL 483: Revises provisions relating to motor vehicles.
(BDR 43-871)

Senator Spearman stated she wanted to go through what the study actually does, and Ms. Dykema has already talked about the changes that have been made with respect to who will conduct the study. She continued with [Exhibit C](#) on page 3 with information about the duties of the Interim study.

She added what is not seen is a reference to what is becoming the new hybrid. Toyota has the Mirai. Toyota started with a test pilot in Long Beach, moved to northern California, out east and now is getting ready to conduct a pilot program. The new hybrid is not gasoline and electric, it is electric and hydrogen fuel cells. Nevada needs to not limit studies to the EVs, because by the time the

Legislature comes back in 2021, if that is all that is done, Nevada will already be behind the power curve.

She had an opportunity to have discussions with some of the people at the National Renewable Energy Lab. Some research shows hydrogen fuel sales are coming a lot quicker than most people think. A world class automobile maker like Toyota has already expanded to every region of the Country and now is figuring out how Toyota is going to market it in the West, the East Coast and the middle of the Country. Nevada needs to look at this from a comprehensive standpoint, see what is here and get out in front to see what is coming.

She continued saying, this gives us a clear signal that if we simply limit the study to how we tax EVs or vehicle miles traveled (VMTs), we will be behind the power curve and always playing catch-up. It is not just about the passenger vehicles on the road. Legislation came out of the Senate Committee on Growth and Infrastructure about electric school buses. We have to consider the energy policy comprehensively from the standpoint of not just electrification but also growth and infrastructure.

Senator Gansert said the bill broadens the language. Nevada needs to look at this from a comprehensive standpoint. She had not heard about the Toyota Mirai. Right now we are trying to electrify our highways but this would be hydrogen, so would normal gas stations start carrying hydrogen cells or hydrogen gas. Is that how that would work?

Senator Spearman said, while going through the executive leadership program at National Renewable Energy Lab, she drove a Toyota Mirai, a Beamer, a Volvo, and a Chevrolet—about six different hydrogen fuel cell vehicles. Every automobile maker in the world has already started making them. Toyota has launched test markets ahead of a lot of others. Looking at the hydrogen fuel cell or the hydrogen hybrids, it would not be necessary to look at VMTs.

The way you refuel it is like an internal combustable engine, she said. You drive up to the fuel cell tank and put the nozzle in your car. The tax is computed right there. If we focus on VMT, we miss the mark. The VMT will not get us to where we need to be with the hydrogen fuel cells, not only with the passenger cars but with commercial vehicles. Very quickly trucks are coming on board.

Chair Ohrenschall said hearing so much about self-driving and electric cars, he wondered if the study will look at the self-driving cars as well or just the ones driven by humans.

Senator Spearman said the suggestion would be the Interim committee study of all forms and modalities of transportation and infrastructure. Those are changing rapidly, almost in a nanosecond. Autonomous cars will be a second generation in respect to our hybrids. She added we should study all of that, and the information gleaned from this Interim study should be used for electrification and to integrate all forms of our transportation nodes, growth, infrastructure and renewable energy policies. All of that will come into play.

Christi Cabrera, Nevada Conservation League, spoke in support of S.C.R. 3. Pollution from transportation is the No. 1 source of greenhouse gas emissions in Nevada. Our health, economy and environment all suffer as a result. Internal combustion vehicles emit large amounts of nitrogen oxide in particulate pollution. These pollutants can lead to or worsen asthma, lung disease and other respiratory illnesses. Studies have linked air pollution to adverse effects on nearly every organ system in the body. Researchers estimate Nationwide tens of thousands of people die prematurely each year as a result of particulate pollution. This problem will continue to grow unless we pave the way for adoption of low emission and electric vehicles, which are saving consumers money and reducing health and environmental impacts. This bill will help us move toward the electrification of our transportation sector while taking a comprehensive approach to how our roads are funded. We strongly urge your support.

Ray Fakhoury, Advanced Energy Economies, said Advanced Energy Economies (AEE) supports this bill because AEE believes it sets up the State to think about policies in a comprehensive manner. This is something that builds a foundation to support long-term growth. From AEE's perspective, working to reduce barriers for investments in technologies, electrification of the transportation sector and the economic opportunities associated with transportation electrification would create a flow into Nevada whether through new business ventures entering the State or other jobs that could be developed and grown out of Nevada. There are many different companies focused on expanding investments in these technologies, especially electrification. A number of prominent car manufacturers are moving in this general direction. This is no longer primarily focused on luxury vehicles. It is more spread out, so AEE would

encourage the Committee to consider these possible economic growth opportunities.

Senator Spearman said this begins to bridge the gap between the jobs of today and tomorrow. We continue to talk about robotics, artificial intelligence (AI), Internet of Things (IoT), how all those things are coming into play and how many of the jobs people have today are going away.

Senator Spearman said another benefit of this study will help us to identify training needed from Department of Employment, Training and Rehabilitation (DETR). It will help identify things needed for our skilled workers, who are ready for not just today but for tomorrow.

Chair Ohrenschall stated documents from Cassy Rivas, Sierra Club Toiyabe Chapter, in support of S.C.R. 3 and Jeffery Kinder, Division of Environmental Protection, Nevada Department of Conservation and Natural Resources, neutral on S.C.R. 3 will be put into the record ([Exhibit F](#)).

Chair Ohrenschall closed the hearing on S.C.R. 3.

Chair Ohrenschall opened the hearing on Senate Concurrent Resolution 1.

SENATE CONCURRENT RESOLUTION 1: 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)

Senator Pat Spearman, Senatorial District No. 1, read her statement ([Exhibit G](#)). She added in the North American hemisphere only Nevada has such large and expansive deposits of lithium. The closest country to have this much lithium is Brazil.

Senator Spearman continued reading her statement and added one of the things she had an opportunity to do while she was working on her doctoral program was to look at energy policies globally. With Nevada being the leader—not just in solar—we have the opportunity to exploit wind, geothermal, and given the fact we have a lot of public land, the opportunity to start looking at bio. Nevada has Tesla and storage walls in place.

She continued, saying shingles and the big expansive solar panels are going away. It is prudent for us to start looking at how we develop all these and how we integrate all this in our new Nevada—how we expand our economic development in this State. This gives us an opportunity to diversify and to insulate against another downturn. It is not a matter of if we will have another recession, but when.

She continued reading her testimony. She added that even though we have four times more geothermal than Utah. Utah got the Frontier Observatory for Research in Geothermal Energy (FORGE) project. We can still make it happen in Nevada, we just will not call it FORGE.

She continued reading her testimony, recognizing that expanding our renewable resources is a national security issue. We are almost totally reliant on fossil fuels from other countries. They may or may not be our friends.

In the 1970s the oil embargo took gas from 19 cents up to 50 cents per gallon and everybody thought it was Armageddon. Then we had another issue with oil production when export countries took the price of gasoline up above \$2. One thing we have to realize is that we do not have a baseload in Nevada. All of our energy, with the exception of renewable resources we have cultivated, comes from outside. If the price of natural gas spikes 2 or 3 cents, all of us will feel the effects.

From the national security prospective, between 2002 and 2009, 6 out of every 10 deaths in Iraq were related to oil, either transporting, convoy, guarding or offloading. We spend more than \$1 million a day in the Strait of Hormuz just making sure the passageway is open. At any given time, terrorists might decide it is more productive to their cause than ours to blow it up. We ask so much of our men and women in uniform, and those of us who have served and continue to serve do not complain, but we have to recognize we have an opportunity and a responsibility to not take the lives of those who have sacrificed all or the potential loss of life for others.

She asked how many remember the initials IED (improvised explosive device). At the Pentagon, not five minutes went by without hearing something about an IED. Our military members who were guarding, transporting or offloading fossil fuels were like sitting ducks. The roads in Afghanistan and Iraq are very narrow and one of the things the enemy used to do was to put what looked like an IED

in the middle of the road, and the convoys would go on either side of those roads which were expanded kill zones. If you can imagine an explosive device going off with 300 gallons of fuel you know what our service members experienced. It was the way casualties happened after that. The reason we have so many service members right now with PTSD is because after those explosive devices went off, literally, they were shoveling the pieces of their friends' bodies and putting them in body bags.

We have a responsibility to figure out how to decrease our dependence on foreign oil. We can do this and we certainly should.

Leo Drozdoff spoke in support of S.C.R. 1 on behalf of The Nature Conservancy and Albemarle Corporation. He said they both proposed friendly amendments ([Exhibit H](#) and [Exhibit I](#)) we have talked to Senator Spearman about. Basically, they want to be included in the process. Albemarle is the only lithium producer in the Country and happens to be in Silver Peak. The Nature Conservancy has devoted a lot of time on a concept of putting renewable energy on brownfield locations. Both companies would like to go on the record in support of S.C.R. 1 with the amendments.

Alfredo Alonso spoke on behalf of Ormat Technologies Inc. Ormat also supports this effort.

Mr. Alonso said there have been many attempts to map geothermal resources in the West, but nothing recently. More information is always good, and what is most important is this dovetails with what the Legislature has been trying to do with the emergence of homegrown renewable energy. Nothing against solar or other technologies—but geothermal is prevalent in only a few states. It is prevalent here, especially in the rural counties. In some of those counties, it could be the most important resource. If you look at Churchill County, Ormat is its largest taxpayer. These projects bring in significant amounts of revenue, he said, and we hope to just keep going. Whether that is creating energy used here in the State or wheeled out of the State, Nevada benefits.

Chair Ohrenschall said there is a line on the last page about developing a mitigation framework. He asked if that came from Albemarle or Nature Conservancy, or who is proposing it.

Mr. Drozdoff replied it came from The Nature Conservancy and is an evaluation project.

Chair Ohrenschall asked if those will be new projects.

Mr. Drozdoff replied yes, new projects.

Senator Spearman said she wanted to cover something else. Mr. Alonso alluded to the economic benefits we have. She said she did not know how many of the Committee had an opportunity to go into the Peppermill in Reno. Before switching to geothermal energy, it was about \$30,000 a month increased operational cost for heating and cooling. Once the Peppermill went to geothermal, about 90 percent of their electricity came from geothermal. If we could do that with our universities and government buildings, imagine what could be done with the limited budget we have.

By shifting those resources to other places, this resolution will provide more than ample opportunities for our universities, both University of Nevada, Reno, and University of Nevada, Las Vegas, to get the kind of research hours necessary to become Tier One. A number of countries in Europe are already doing this. Imagine what we could do by saving energy dollars, and how we could increase the salaries of our professors, add more courses and reduce the cost of tuition, she said.

Senator Spearman stated there were others who were going to come and be part of the presentation. They may have gotten thrown off because the time changed. She asked if the Chair would allow their testimony to be uploaded.

Chair Ohrenschall said absolutely.

Chair Ohrenschall stated four documents in support of S.C.R. 1 will be put into the record. One is from James Faulds, Ph.D., Director and State Geologist and a professor on Nevada Bureau of Mines and Geology, and Bridget Ayling, Ph.D., Director of Great Basin Center for Geothermal Energy and Associate Professor, Nevada Bureau of Mines and Geology ([Exhibit J](#)). They were to be presenters along with others from the mining industry, the geothermal industry and other renewable energy industries including S. Kent Hoekman Ph.D., Desert Research Institute; Cassy Rivas, Sierra Club Toiyabe Chapter; and Juan Palma, Nevada State Director, The Nature Conservatory ([Exhibit K](#)).

Chair Ohrenschall closed the hearing on S.C.R. 1.

Chair Ohrenschall said he had a couple of questions he had to ask Legal Counsel on S.C.R. 1, but he would be open to a motion to amend and adopt S.C.R. 3.

SENATOR PICKARD MOVED TO AMEND AND ADOPT AS
AMENDED S.C.R. 3 WITH THE AMENDMENT OFFERED BY
SENATOR SPEARMAN AND MS. DYKEMA,

SENATOR WASHINGTON SECONDED THE MOTION.

THE MOTION CARRIED UNANIMOUSLY.

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Chair Ohrenschall adjourned the meeting at 3:01 p.m.

RESPECTFULLY SUBMITTED:

Diane Rea,
Committee Secretary

APPROVED BY:

Senator James Ohrenschall, Chair

DATE: _____

EXHIBIT SUMMARY				
Bill	Exhibit / # of pages		Witness / Entity	Description
	A	2		Agenda
	B	1		Attendance Roster
S.C.R. 3	C	4	Senator Pat Spearman	Written Testimony
S.C.R. 3	D	2	Angela Dykema / Southwest Energy Efficient Project	Written Testimony
S.C.R. 3	E	2	Angela Dykema / Southwest Energy Efficient Project	Proposed Amendments
S.C.R. 3	F	2	Division of Environmental Protection and Sierra Club Toiyabe Chapter	Documents from Jeffrey Kinder and Cassy Rivas
S.C.R. 1	G	5	Senator Pat Spearman	Written Testimony
S.C.R. 1	H	6	Nature Conservancy	Proposed Amendment
S.C.R. 1	I	5	Albemarle Corporation	Proposed Amendment
S.C.R. 1	J	2	Nevada Bureau of Mines and Geology	Document in favor from James Faulds and Bridget Ayling
S.C.R. 1	K	5	The Nature Conservancy, Sierra Club Toiyabe Chapter and Desert Research Institute	Documents in favor from Juan Palma, Cassy Rivas and S. Kent Hoekman, PhD