MINUTES OF THE
SENATE COMMITTEE ON GROWTH AND INFRASTRUCTURE

Eighty-first Session
May 17, 2021

The Senate Committee on Growth and Infrastructure was called to order by Chair Dallas Harris at 4:07 p.m. on Monday, May 17, 2021, Online and in Room 2144 of the Legislative Building, Carson City, Nevada. Exhibit A is the Agenda. All exhibits are available and on file in the Research Library of the Legislative Counsel Bureau.

COMMITTEE MEMBERS PRESENT:

Senator Dallas Harris, Chair
Senator Chris Brooks, Vice Chair
Senator Pat Spearman
Senator Scott Hammond
Senator Keith F. Pickard

STAFF MEMBERS PRESENT:

Susan Scholley, Policy Analyst
Eileen O'Grady, Counsel
Debbie Shope, Committee Secretary

OTHERS PRESENT:

Doug Cannon, President and CEO, NV Energy
David Bobzien, Director, Governor's Office of Energy
Michael Brown, Executive Director, Division of Economic Development, Governor's Office of Economic Development
Bob Potts, Deputy Director, Division of Economic Development, Governor's Office of Economic Development
Bob Johnston, Nevada Senate Democratic Caucus
Danny Thompson, International Brotherhood of Electrical Workers Local Union 396
Ernie Adler, International Brotherhood of Electrical Workers Local 1245
Michael Hillerby, Google
Ed Garcia, Con Edison Clean Energy Businesses, Inc.
Baird Fogel, Haas Automation
Susan Fisher, Able Grid Energy Solutions; Ovation

Christi Cabrera, Nevada Conservation League
Annette Magnus, Battle Born Progress
Nate Blouin, Interwest Energy Alliance
Carolyn Turner, Nevada Rural Electric Association
Alan Molasky, Ovation Development Corporation
Ann Silver, Reno Sparks Chamber of Commerce
Dylan Sullivan, Natural Resources Defense Council
Laura Granier, Nevada Resort Association
Patrick Donnelly, Center for Biological Diversity
Kevin Emmerich, Basin and Range Watch
Peter Krueger, Petroleum Marketers and Convenience Store Association
Ian Bigley, Progressive Leadership Alliance of Nevada
Andrew MacKay, Nevada Franchised Auto Dealers Association
Cesar Diaz, Charge Point
Jaina Moan, The Nature Conservancy
Scott Leedom, Southwest Gas Corporation
John Hadder, Director, Great Basin Resource Watch
Chelsey Hand, Great Basin Resource Watch

CHAIR HARRIS:
We will open the hearing on Senate Bill (S.B.) 448.

SENATE BILL 448: Revises provisions governing public utilities. (BDR 58-46)

SENATOR CHRIS BROOKS (Senatorial District No. 3):
I am presenting S.B. 448. This bill is an attempt for Nevada to capture its place in the new energy economy. Its provisions help Nevada take full advantage of our resources and potential to attract billions of private capital dollars to our State. It takes full advantage of federal infrastructure money that is coming to our State. It creates tens of thousands of high-paying local jobs while reducing our greenhouse gas emissions (GHG) and helping us to meet our climate goals.

Slide 2 of my presentation (Exhibit B) shows Nevada has a unique opportunity to expand its clean energy economy to: provide economic diversity; create new high-paying jobs; increase electric-grid resiliency; and provide new tax revenues for this State, all while decreasing carbon emissions and air pollution, and increasing economic and environmental justice for Nevadans.

Slide 3, Exhibit B, shows Nevada is positioned to be a leader in clean energy. We have almost no fossil fuels in the State and import almost all of our fossil energy at more than $8 billion a year. What could be done with that money if it stayed here in our economy? We have abundant renewable resources, the best solar and geothermal resources in the world, and wind and biomass opportunities. We are located in the center of the Western Interconnection and the western energy imbalance market.

Nevada has the most robust transmission infrastructure in the U.S. set outside of Las Vegas in the Mead, Marketplace and Eldorado substations. We are adjacent to the largest energy economy and the largest economy in North America. We have the only operating lithium mine and the best lithium resources in the world.

Nevada has a well-established, high-tech mining industry. We have established labor unions and apprenticeship programs, which have been built around the new energy economy. We are leaders in the construction industry.

Nevada has universities and research facilities set up around clean energy and the new energy economy. We have relatively new roads, rail and airports. We have relatively new transmission and distribution systems in southern Nevada and are an international travel hub. We have easy business startups, no corporate income tax and many programs to support energy projects. For these reasons, we should be the leader in clean energy and the new energy economy in the U.S.

This bill has eight key components to support that vision as seen on slide 4 of Exhibit B. The first is transmission infrastructure; second is transportation electrification; third is energy efficiency; fourth is rooftop solar; fifth is resource planning to reduce carbon emissions; sixth is energy storage; seventh is the Economic Development Electric Rate Rider Program; and eighth is a few regulatory cleanup provisions.

With us today is Doug Cannon, Chief Executive Officer of NV Energy, who goes into greater detail on the transmission infrastructure. The transmission infrastructure opportunities we have in the State are important to the economic future of Nevada.

On Slide 5, Exhibit B, the high-voltage, bulk transmission system which serves the customer electricity loads of the Western Interconnection is the shaded portion of the western U.S. An obvious lack of transmission to connect the lines is basically in the center and western side of Nevada.

In building that transmission system out, we would support the regional transmission markets. Connecting the dots on Slide 6, Exhibit B, with high-voltage transmission lines in the West, we move wind power that happens at night in the Mountain West into and through Nevada. We will take advantage of zero-carbon electricity generated in the Pacific Northwest and the hydro systems of Bonneville Power Administration. It takes advantage of surplus solar power in the Southwest and California and moves it into and through Nevada.

Every time a megawatt hour moves through Nevada, whether generated here and exported or moving through our State from one utility to the next, Nevada receives economic benefit. Because of the infrastructure in southern Nevada and the geographic location to existing transmission lines and future projects already planned, if we connect the dots with a few transition lines, we will realize the economic opportunity of being the hub of the Western Interconnection.

The benefits are billions of dollars of economic activity and private investment in renewable energy projects in our State. On Slide 6 of Exhibit B, the proposed Greenlink transmission lines, for instance, will access renewable energy development zones, which are almost 100 percent federal lands. If we access federal lands, we could turn them into areas that can be developed into clean energy and load projects, whether data centers, manufacturing, mining or any other type of heavy industrial loads. We can open up the opportunities for development in our State.

We could then turn those federal lands into local taxable property of which the benefit of that tax goes to the local and state governments where the projects exist as the economic activities we create with the jobs. We will have $690 million in direct economic activity from the construction of the lines.

It gives us the benefit of taking advantage of a regional transmission organization (RTO). One RTO we are aware of is the California Independent System Operator (CAISO). Nevada is home to the only non-CAISO utility in the U.S. We have a head start on the world of regional markets, with much

conversation across the western U.S. about what a regional market should look like.

Senator Chris Hansen in Colorado is moving his senate bill through the Colorado House that discusses regionalization in the same terms that we discuss in this bill. This is a Western conversation taking place between Western governors. It is taking place between the governors and the big and small utilities in the West at the legislative level.

The benefits of an RTO are it spreads out both generation and load across a large regional area, resiliency and, as I see it, transmission as a national security issue. If we build out more transmission and storage and integrate with other systems, it makes Nevada's place in the national security apparatus more important. It creates resiliency in a way so what happened in Texas will not happen in Nevada.

At times, we progress to a situation where we move close to maxing out our system and not require the availability of electricity during our peak times. We saw 20 years ago what can happen through deregulation, lack of resource and lack of transmission assets during the Western energy crisis. We saw what happened in California this last summer. It was not a lack of resource, it was lack of access to the resource when it was needed the most. Transmission helps the problem go away.

One of the most important points being in a regional market is it provides access to lower-cost energy. Looking at the loads in Nevada centered in two small pockets, to provide the generation for the loads, it is far more affordable if you give the entire Western U.S. the ability to access the markets with zero-carbon generation.

Regional markets exist in everything east of the Rocky Mountains. Building out regional markets across the West and building transmission that lays the groundwork for the network increases resiliency and national security. By doing this, we lower the cost of energy for Nevada's ratepayers.

While we need to require investments in infrastructure, it opens up opportunities for those who are serviced by NV Energy and those who procure their own energy. It has transmission options and therefore access to clean energy at a lower price to benefit ratepayers large and small.

On Slide 8, Exhibit B, transportation electrification has the opportunity to not only clean up air pollution, which disproportionally affects the communities in our State that are historically underserved, but reduce our largest sector of GHG emissions. We have done a good job with renewable energy and lowering our carbon emissions though the electricity sector. The transportation sector is now the largest GHG emitter and the emitter of pollution in our State. Pollution causes health problems for many of our Nevadans and causes billions of dollars of health damages as a result.

Transportation electrification provides the opportunity to give choices to consumers. At this time, we are at a tipping point where an electric vehicle (EV) is the same price as its gasoline engine counterpart, and EVs are getting cheaper every day. The cost of owning and operating an EV is already a fraction of what it is for a gasoline-powered vehicle.

Personal and public transportation are good candidates to be electrified. It is hard to imagine Nevada is one the most urban states in the entire U.S. If you think about where 80 percent of the population of the State lives, those residents are clustered closely in two valleys. It creates a lot of air pollution, but it makes even the lowest cost and shortest range EVs a good choice for the majority of Nevadans. Longer-range and cheaper-priced EVs are coming every day.

The health, GHG emissions and economic benefits for Nevadans only exist if you can charge your vehicle. I have an EV charger in my garage, a battery system and a solar system. Most Nevadans are not able to access that type of system. If we want to create the benefits of electrification available to Nevadans, we need to provide charging infrastructure.

Another benefit of providing charging infrastructure is when you are charging the EV, you create a load that then spreads out the cost of not just EV charging but all electricity in the entire State across a broader base. With more charging units, you cause lower prices for charging.

Data and studies show the electrification of transportation provides downward rate pressure for ratepayers, including those who do not own EVs.

According to a study recently commissioned by M.J. Bradley & Associates and performed in 2021, on Slide 10, Exhibit B, the cumulative net-benefits for the

electrification of the transportation sector could be $21 billion by 2050. Most of it comes in driver savings. The cost of kilowatt hours (kWh) has gone down in Nevada, all while the makeup of the kWh has become cleaner every year. The electricity you purchase fuels your EV. Imagine in Nevada we are making our own electricity with renewable resources, putting it in our vehicles and driving our vehicles. It closes the loop, keeps billions of dollars in our economy and makes it affordable for the individual who is driving the EV.

Every major manufacturer and new startups are making new EVs. If we do not step out in front of that, we will miss out on the benefits.

We decided to approach this bill in two different ways. One was immediate. Create immediate investments, put people to work, receive tax revenues generated in Nevada and begin laying groundwork so we can move in front of EVs coming to our State. The second part puts in place a long-term planning process by which the community can come together and begin discussing what the electrification of transportation looks like in a more holistic way.

The first piece has five types of programs, Slide 11, Exhibit B, and we are directing the investment of $100 million in transportation electrification during the next two years.

First is interstate corridor charging depots to facilitate long-distance travel within our State. The investment gives travelers into our State the comfort that they can come from out of state and visit Nevada. They can enjoy the great features we offer and leave a portion of their dollars behind. Charging infrastructure in the interstate corridors helps them.

Second is urban charging depots. We need the ability for people to charge their vehicles in the core of our cities.

Third is public agency charging for fleets and buses; one of the prime candidates for electrification is school buses.

Fourth is school buses. School buses are parked for a certain amount of hours every day and maintain a certain set route they drive. Our schools are in a situation now where funding is prioritized. If we can put in charging infrastructure to help school districts, we can see the electrification of our fleet

of school buses. School routes make a direct impact on the children riding the school buses and the neighborhoods they serve.

Fifth is outdoor recreation and tourism. When you think about people coming to Nevada and especially Las Vegas, many of our guests are coming from California. Having the interstate corridor and resort corridor charging depots helps people visiting the city and outdoor recreation areas, making their visits more affordable and convenient. It not only helps the customers, it helps those employees who work in the resort corridor. That is our largest employer by far.

For those people who work in the resort corridors, if they could charge their EV at work, then they do not necessarily need a charging station at or near their home. As someone who has tried to live this and experiment with it to see where the shortfalls are in our State, I see it is the No. 1 way we can help people ensure access to EVs.

Within the $100 million investment, 40 percent must be invested in historically underserved communities to the benefit of those communities. It achieves two points. It addresses the issues of the disproportional negative impacts the historically underserved communities experienced from climate change and the more immediate health problems associated with the pollution produced in our valleys.

The second thing is expanded economic opportunities, whether it is through low-cost charging or having access to charging at their homes or places of work for those historically underserved communities. Often, we do not see those communities as the beneficiaries of the new energy economy. We are creating opportunities for them by directing 40 percent of funding to the benefit of those communities.

It directs 20 percent of the investment to outdoor recreation and tourism programs which is the most important way to help our economy recover, and everyone can benefit.

The second part of this is the long, comprehensive and holistic approach to planning around electrification of transportation.

One of the other components of this bill is energy efficiency, Slide 12, Exhibit B. The law requires that 5 percent of energy efficiency plan expenditures be

directed to programs for low-income households. The bill doubles the amount to the benefit of low-income households but also those historically underserved communities identified and defined in this bill. Community Housing Improvements Systems; Nevada Chapter, American Planning Association; and Natural Resources Defense Council were helpful over the last year in coming up with definitions and applications for those historically underserved communities.

Energy efficiency programs of variable incentive levels offer higher incentive levels for low-income households to help Nevadans economically through the health and climate benefits of energy efficiency. These communities are sometimes left behind in projects of that type.

On Slide 13, Exhibit B, the bill clarifies and expands rooftop solar for multiunit buildings. The intent of this is to address multifamily housing, specifically low-income and senior housing. My grandmother, for example, lives in senior housing in North Las Vegas. We have one owner of a large senior housing or low-income housing development, and utilities are inclusive—the energy, the water and everything is with the rent.

In that particular application, we want to have solar on the roofs or on parking structures. In my grandmother's building, people do not own their own places and do not have their own power bills. We want them to receive the benefit of on-site renewable energy generation and the economic benefits that come with it. It is directly passed on to the tenants.

One of the other components, Slide 14, Exhibit B, of the bill is resource planning to reduce carbon emissions. In this Legislature, we are familiar with the renewable portfolio standard (RPS), a mandate that we create a certain amount of our electricity from a certain type of clean energy. We are moving beyond that as a State toward a zero-carbon future. How can we move to a zero-carbon future? A zero-carbon future takes a long-term plan, and we need to begin making that plan now.

The graph on Slide 14, Exhibit B, shows CO2 emissions reduction. Emissions—the biggest contributor to carbon in the electricity sector— have drastically been reduced while our population has grown. That is a result of the RPS policies put into place and, more importantly, the falling costs of renewable energy.

Renewable energy is now the cheapest energy. Now we have to figure out how we move to where we want to go. We want to obtain a zero-carbon electricity world, and it takes planning other than only the RPS. The RPS was a great tool to get us where we are now, and the next level is to begin putting in plans on how we move to zero-carbon. It sometimes means transmission, sometimes it is storage, sometimes it means entering into a regional market, and sometimes it means electrification of the transportation sector. These points help us drive down the cost of electricity and access our zero-carbon future.

Slide 15, Exhibit B, is my favorite slide in the entire deck. Notice the increased use of renewable energy with the reduction in carbon and overlaid with the average rates. As the reduction in carbon and the generation of renewable energy grows, the cost of electricity has fallen. For someone who has been coming to this building for 20 years preaching this and had 3 sessions under my belt to push this policy, it is good to say I told you so. Many people continue to say adopting many of the policies raises prices. This could not be further from the truth. Slide 15 is my favorite.

It is how it comes together when we look at the plan based on the laws that exist and the requirements we maintain for our utilities in this State. When we look at the carbon reduction model on Slide 16, Exhibit B, it is not enough to move us to the goals that we set for ourselves as a State, as a Nation and as a planet. It could be far better. That is why we need to go from our current way of looking at resource planning and RPS and take a more holistic approach at carbon reduction planning for the electricity sector.

One of the other opportunities in this State I mentioned earlier is lithium, Slide 17, Exhibit B, but storage comes in many different ways. It comes in lithium, mechanical, pumped hydro and hydrogen. We need to ensure we are encouraging people in Nevada. We could again be the leader in energy storage in this State.

One way to incentivize is change our renewable energy tax abatement program. We need to clarify the large storage projects that are coupled with or facilitate renewable energy generation are a part of the renewable energy tax abatement. That is one of the points this bill does.

Next, Slide 18, Exhibit B, discusses the economic development piece. We can reach our climate reduction goals while developing the economy. One way is

reopening the Economic Development Electric Rate Rider Program. This is for new load in southern Nevada. Many people may be familiar with how it was used in the north, and now we want it to be available in the south. The statute ran out. Many kinds of electricity-intensive companies want to come to southern Nevada. It makes it a more competitive environment for the companies to locate themselves to Nevada, primarily southern Nevada. This exact model was used in northern Nevada with great success.

The next item in this bill is regulatory cleanups. One is the disposition of generation assets on Slide 19, Exhibit B. This goes back to when Sierra Pacific Power Company and Nevada Power Company came together and began doing business as NV Energy. The merger language needs cleaning up to clarify issues.

Lastly, if we propose the utility spends money to build infrastructure, we need to ensure that the utility builds out that infrastructure with the highest level of scrutiny from the regulator. This Public Utilities Commission of Nevada burden of proof language in section 35 of S.B. 448 ensures the burden is on the utility to show the investment it makes is the most prudent for the benefit of the ratepayer.

DOUG CANNON (President and CEO, NV Energy):
Senate Bill 448 continues the legacy as Senator Brooks discussed. In 2019, the legacy of the new energy economy began to take root. We began to develop Nevada's renewable energy potential focused on reducing carbon, creating jobs and driving economic diversification in our State.

The timing could not be more suitable with the effects of Covid-19 still challenging our communities and the opportunities that lie ahead to create jobs and further diversify our economy. I appreciate Governor Steve Sisolak, Director David Bobzien and the stakeholders who provided input on this bill and their leadership on carbon reduction, renewable energy development and job creation.

I will begin with the transmission infrastructure. Transmission infrastructure in the electric industry is akin to the interstate highway system or the interstate railway system. We can produce energy in many places in Nevada. But it does no good if we cannot move that energy from where it is produced to where it needs to be utilized. Transmission becomes the backbone necessary to fully utilize that energy.

Earlier this year, the Public Utilities Commission of Nevada (PUCN) approved the first segment of what we call the Greenlink Nevada transmission project. That is the map you saw on the presentation. It consists of five different segments of transmission lines. The PUCN approved construction, design and full development of what we refer to as Greenlink West on Slide 6, Exhibit B. That transmission line goes from Las Vegas to Yerington, up the west side of Nevada.

In addition, we have two transmission lines that run from Yerington—one runs to the proposed Innovation Park or the Tahoe-Reno Industrial Center and another runs over into Reno—to move that energy to where the loads are.

In addition to Greenlink Nevada, we have what is called Greenlink North, a power line that runs from Ely across the center of the State over to Yerington. That particular line was not approved for construction. It was approved for preliminary design and planning. It takes this whole suite of power lines to create the triangle you see on Slide 6 to create the transmission network needed to unlock the opportunities that we see in our State.

What will the completion of Greenlink accomplish for Nevada? It is a vital component to position Nevada to achieve our long-term sustainability and carbon reduction goals. The construction of the power lines unlocks the potential to develop more than 4,000 megawatts (MW) of new renewable energy across the State. In our rural counties, this creates important jobs and represents significant economic development.

It creates a path forward for us to economically achieve the State's net-zero carbon goals by 2050. Greenlink Nevada adds much-needed transmission import capacity into northern Nevada and is necessary to accommodate more than 1,400 MW of load that has signed up to come to Nevada. That 1,400 MW represents significant business development and employment opportunities, and the contracts have been signed. It is not theoretical customers coming to our State. The project allows employers to achieve these objectives in a carbon-free way utilizing Nevada's renewable resources.

The project facilitates Nevada's long-held vision to leverage the State's renewable energy resources to not only meet the needs of Nevadans but also create opportunities for revenue and jobs by exporting this energy to surrounding states through Greenlink's increased transfer capability. In addition,

as mentioned by Senator Brooks, it increases our ability to participate in the energy imbalance market, bringing further benefits to Nevadans. Any benefits received by NV Energy participating in the energy imbalance market go 100 percent to our customers. NV Energy does not keep any of the benefits as profit.

Every dollar we can save by participating in the energy imbalance market is another dollar our customers shave off their energy rates. As pointed out by Senator Brooks, the Greenlink Nevada transmission project is an approximate $2.5 billion investment in Nevada. It generates over $690 million in direct economic activity and creates nearly 4,000 good-paying, skilled-labor jobs to further drive diversification of Nevada's economy and drive recovery from the Covid-19 pandemic.

Development, permitting and construction of high-voltage transmission is a lengthy endeavor. It begins immediately for us to meet the economic reliability and clean energy objectives of the State while ensuring that facilities produce minimal impact on Nevada's land resources and habitat.

If this bill is passed, NV Energy will file an amendment with the PUCN by September 1 to construct the facilities previously approved for design, permitting and land acquisition that will primarily be Greenlink North.

What is the effect on customer rates from building a project like Greenlink? Since 2013, NV Energy has undertaken a significant amount of capital investment in Nevada, deploying more than $4.3 billion. What was the effect of that $4.3 billion dollars of investment on our customer's rates? The rates are lower today than in 2009. In October 2020, our customers received a $120 million rate credit. On January 1, our customers saw a $93 million rate reduction. Our customers have not seen a rate increase since before 2013.

The capital we are discussing is a smaller number than that. We expect this to unlock significant renewable energy opportunities. It lowers customers' costs as Senator Brooks indicated. This unlocks the opportunity to utilize market resources throughout the region which helps reduce our customers' rates.

I want to note that the PUCN reviews the costs for the projects that NV Energy undertakes and only allows NV Energy to recover the reasonable costs of the projects. Thus customers are assured that NV Energy is being closely watched

and regulated as it develops the projects. Greenlink Nevada will bring to Nevada lower-cost renewable energy resources, open up new energy markets to access lower-cost resources and allow NV Energy to manage its energy portfolio in a more cost-effective and reliable way. The benefits reduce overall costs for our energy customers throughout the State.

Another important section addresses the electrification of the transportation sector. To meet the climate objectives of Nevada and specifically reduce carbon in the transportation sector, the role of the electric utility expands to accelerate transportation electrification. Today, tailpipe emissions are the largest source of carbon in Nevada. NV Energy has long supported cleaner transportation opportunities.

The transportation electrification economic recovery package included in this legislation authorizes up to $100 million of clean energy infrastructure investment in EV charging stations and other infrastructure over the next three years. It directs NV Energy to file a plan with the PUCN and, upon review and approval by the PUCN, cause the immediate investments to accelerate transportation electrification, put people to work and perform this in historically underrepresented communities.

Work would begin immediately on the programs outlined in the legislation so we can begin to see the important economic recovery.

This bill transforms Nevada's clean energy economy and its clean energy landscape and positions the State as an energy leader in the western U.S. for decades to come. The bill accomplishes the objectives while ensuring low-income and underrepresented Nevadans enjoy the benefits of this energy transformation. In addition, the bill creates thousands of good-paying, skilled-labor jobs that diversify Nevada's economy and job market.

DAVID BOBZIEN (Director, Governor's Office of Energy):
I want to highlight particular areas of support for the administration and alignment with the State Climate Strategy. In December 2019, governors from the western area convened to discuss the future of the Western Interconnection. Their focus was on price stability and reliability for customers, along with economic opportunity and increased adoption of renewable energy even as they faced the pressures and impacts of the changing climate in the West.

That convening of governors from states as diverse as Idaho, Colorado, Oregon, Arizona, Wyoming and others has evolved into the Western Interconnect Regional Electricity Dialogue. It consisted of governors, energy advisors and utility representatives developing recommendations on resource adequacy, transmission planning, greenhouse gas accounting and state clean energy standards seeking to harmonize for purposes of market engagement.

Nevada is participating in a multistate study funded by the U.S. Department of Energy on the cost and benefits of joining various configurations of an RTO. The State's current engagements and regional dialogues provide plenty of inputs for further exploration by a Regional Transmission Coordination Task Force, created by section 31 of S.B. 448. The Governor's Office of Energy (GOE) looks forward to supporting the Task Force and has a history of providing such support to other similar efforts.

I want to discuss the expansion of the Renewable Energy Tax Abatement (RETA) program to include storage. This is a logical next step in Nevada's long history of policy supporting growing the clean energy economy. For reference, GOE approved its first solar plus storage RETA project in January. With the identification of storage as a critical technology for Nevada to meet its zero-carbon emission goals in the power sector, GOE expects to see additional applications including storage. This expansion of RETA supports developers in considering storage in their projects and benefits that Senator Brooks laid out.

I want to turn to transportation electrification. Senator Brooks is the most powerful advocate for the need and the opportunity around transportation electrification, and we look forward to participating in the development of the plans. The GOE has had a successful partnership with NV Energy for the development of EV charging infrastructure since 2015 and will continue this work through the legislation.

I want to highlight section 49, subsection 3, paragraph (c) which is the Public Agency Electric Vehicle Charging Program. It requires the utility to collaborate with the Department of Administration, State Department of Conservation and Natural Resources, Nevada Department of Transportation and GOE in developing the program. I am pleased to report that the agencies are already in discussions with NV Energy with their plans for this program and others. This collaboration is helpful in the success of the plan and the investments, particularly when it

comes to maximizing any additional infrastructure support that may come from Washington, D.C., as part of the American Jobs Plan.

As noted, as the EV market grows, we want to ensure Nevadans have access to clean transportation by supporting the development of infrastructure for frontline communities. By ensuring that not less than 40 percent of the bill's transportation electrification plan be dedicated to investments made for the benefits of the historically underserved communities, Senate Bill 448 expands opportunities to access the EV market for Nevadans.

MICHAEL BROWN (Executive Director, Division of Economic Development, Governor's Office of Economic Development):
In the Governor's State of the State Address, he said he would work with Senator Brooks to bring landmark legislation to urge the Legislature to pass a bold energy bill to solidify our competitive position in the transmission, storage and distribution of energy. This legislation meets that task, and we urge its adoption.

The Governor has stressed that this legislation helps create jobs. Twenty years ago this month, in this hearing room, the lights were going out across Nevada. We were suffering from California's 2000-2001 energy crisis triggered by the Enron speculation, and Nevada Legislators Senator Randolph J. Townsend and Majority Leader Barbara E. Buckley came together in a bipartisan way to fashion energy legislation which stabilized our market and set the path for a renewable new economy. We cannot have a hearing like this without mentioning former director of the Department of Business and Industry Rose McKinney-James and the key role she played in putting solar on the agenda at that time. I was there, and I remember at the time we thought it was wind, but Ms. McKinney-James was correct, it was solar.

Those Legislators came together in that crisis and stabilized us. In *The Wall Street Journal*, an interesting article states, "For the first time, renewable energy and renewable energy storage is becoming more competitive than natural gas." This entire storage industry, of which lithium is the base, is coming together in Nevada.

This landmark legislation that Senator Brooks has brought, S.B. 448, is one of the bill numbers that lives on beyond Legislative Sessions. Climate change is real. Corporate America has recognized it. Climate change is on the agenda of

companies in Nevada, and climate change is on the agenda of companies considering coming to Nevada.

To meet the challenge of climate change, you need a matrix. You know what is going into your factory, into your mines, into your casinos. You cannot manage what you cannot measure. Wall Street has stepped forward and has forced, compelled, encouraged and mandated for companies to begin coming forward with environmental social governance (ESG) goals. This is how you measure what companies are doing in this area. Most progressive and responsible companies are seeking ways to improve their ESG scores. By creating this kind of green energy in Nevada and maximizing our opportunities in this area, we have the opportunity to attract different kinds of manufacturers to this State and produce more long-term jobs than what this energy bill produces.

American manufacturing is in a bit of reshuffle. In the postpandemic period, it is looking at reshuffling operations and reshoring operations from overseas. It is looking at reshuffling operations in the U.S. to sort out the supply chain issues and e-commerce issues that developed in the pandemic. Nevada is an attractive prospect for manufacturers because of our Pacific Standard Time zone location and because of our ready and hard-working labor force who are looking for jobs of that type.

We have an advantage in energy. For the first time, we sat with a manufacturer from the Midwest, and the first inquiry was regarding renewable energy. The company wanted to know how we were producing it, how it was transmitted and what the prices were. That was a game changer. We have not heard this before. This is an opportunity to help build and diversify the Nevada economy. The SRI International plan, which is an independent assessment done for the Governor's Office of Economic Development (GOED) on resiliency and recovery in Nevada, recommended we take every step we could to solidify our position as a leader in renewable energy and sustainable energy storage area.

BOB POTTS (Deputy Director, Division of Economic Development, Governor's Office of Economic Development):
I want to emphasize numbers brought up earlier in this meeting were provided by my fellow economists and our advisors at Applied Analysis.

During this 12-year construction period, the project is expected to generate $690 million in economic activity and support over 3,700 person-year jobs. The

jobs pay over $406 million in wages and salaries, and the money returns to the economy.

If you look at only the construction phase, that pencils out to over $1.44 return on investment (ROI), so every dollar invested in this returns $1.44 on the initial investment that Nevada gains in this project.

It does not account for the items Mr. Cannon was referring to, for instance, export base, selling energy, energy imbalance and managing the items. It does not include indirect and induced effects that are expected to add an additional $211 million in economic activity through the project's development cycle. Not even discussing the export base or energy imbalance, it brings the ROI up to $1.88 for every dollar invested.

With Nevada's economy, particularly how hard southern Nevada was hit during the Covid-19 pandemic and the economic downturn as a result of the health crisis, it has become apparent how we need to retool and diversify our economy to move us out of this cycle. We have a strong pipeline and much interest in this State, particularly in southern Nevada.

Looking back at our last two GOED abatement approval meetings, 80 percent to 90 percent of the companies that approached us were manufacturers. Manufacturers have high-energy use operations; these people want to come here and can give us the competitive edge against competing states and other regions in the Country. This adds value to what we can accomplish. As Director Brown discussed, one of the first questions asked from the companies concerned Nevada's renewable energy portfolio. It matters to companies.

We have a huge interest now in the manufacturing sector in our State. Looking at our business pipeline activity and at active projects in the State, we have 19 active projects; 14 of the projects, or 75 percent, are manufacturers, 5 of which are EV-related. It is tight linkage to everything we are discussing. We have 16 projects of that 19, or 86 percent, in Clark County. In total, the projects are estimated to bring on 12,500 jobs at or above the State average wage and $9.7 billion in capital investment. Will all of the projects happen? No, but everything we can achieve to make it happen makes a difference in addressing what we want in diversifying our economy.

We track the number of projects on hold. We have many companies working through their projects and where they want to go, looking at different issues and at their cost portfolios. We have 14 projects on hold; 9 of the projects, or 64 percent, are manufacturers. Ten, or 71 percent, of the projects are in Clark County. In total, the projects are estimated to bring on 8,400 jobs with an average wage of over $25 per hour and bring in over $1.9 billion in capital investment. I realize the capital expenditures are low because these are the on-hold projects, figuring out what they need for real estate and to put it together.

I want to emphasize what Director Brown discussed. In particular, the manufacturers of the 19 active projects asked us what Nevada's renewable energy portfolio looks like and for us to message what we are achieving would be huge strides.

SENATOR HAMMOND:
This is a bold bill, and we are 14 days away from the end of the Session. I wanted to dig deep into the issues. Because it is bold, many people have contacted me with questions.

The bill states the request goes to PUCN, and as long as the request hits the marks, the PUCN "has to" approve it. Can you go through this part so people understand better why it needs to be done? Typically, we do not tie the hands of the PUCN. We allow the Commissioners the autonomy to deal with the subject matter they are good at. I am sure it will dovetail into the ratepayers and with the savings.

SENATOR BROOKS:
We worked closely with the Bureau of Consumer Protection; the PUCN; the electric utility; NV Energy; environmental, social and environmental justice groups; conservation groups; and people in the energy industry over the last year. We worked closely with entities, including the PUCN, to ensure we were addressing the right balance of policy initiative and ratepayer protection.

You are correct, this bill is more prescriptive than other pieces of legislation. Normally, this is a plan proposed and debated in front of the PUCN. This plan lays out a road map for the future of Nevada. It states if we build the transmission lines and implement this electrical infrastructure for charging, wonderful events will happen. Mr. Potts and Mr. Brown alluded to data.

Mr. Cannon and others say if we build the projects, economic opportunities will happen for our State.

The PUCN is the regulator, and this is not its job; it is not in the economic development business. It is keeping rates low, keeping the lights on and ensuring when the utility makes an investment, it does it in the most prudent fashion possible. It does not have the ability to contemplate the economic benefit.

It is a policy decision to carry out these ideas, lay the groundwork for Nevada well beyond just keeping the lights on and providing reliable electricity. At the same time, it gives the Commission the tools necessary to ensure the utility performs the details we direct it to do in the most cost-effective manner possible.

SENATOR HAMMOND:
This comes back to the bureaucratic model. We give an agency a parameter to work in. We say, this is your box; the agency becomes good at it and builds in efficiencies. You are saying this is one of the instances where we as the Legislature are directing this policy change, giving direction because we are asking the PUCN to work outside its box and instituting the new changes. Are you saying by giving the Commission the direction and making this policy decision, S.B. 448 eventually lowers rates because of Greenlink Nevada, the jobs, the flow of energy through our State and the new structure of our energy economy?

SENATOR BROOKS:
Yes, you described it perfectly. That is the intent of the bill, but it is not necessarily the responsibility of the PUCN to even contemplate what private investment in the State would look like if we built a transmission line. Its responsibility is to decide to keep the lights on today, do we need to build it tomorrow, and if so, how can it be done at the lowest cost possible. It is PUCN's job. This goes well beyond that because it lays out groundwork for economic development for our State.

SENATOR HAMMOND:
That is good for the record. You discussed storage. This is one part of the bill not in my wheelhouse. I do not know much about this. I keep hearing and seeing stories about safety issues when we discuss battery storage. I want to

gain an idea of where we are with battery storage and the energy storage in batteries. Can you highlight the safety concerns? What are we contemplating to mitigate the possible issues with the storage?

SENATOR BROOKS:
Sections 3 through 8 of the bill deal with the aspects of storage. Statute has a definition for energy storage. It is the storage of energy not necessarily of electricity. It is agnostic to the technology without knowing what the future holds. I look back 10 years as someone who has been in this industry for 21 years. I could not have imagined how far we would come technologically in the last ten years and zero knowledge to predict what can be done in the next ten years with technology.

We stay agnostic in this bill and in statute as to the type of energy storage available. At this time, the most common is any type of lithium battery. Lithium batteries store energy in a chemical-electrical way. It is what is in your computer, in your cellular phone in your pocket and in EVs. It is prevalent in large-scale utility energy storage.

Whenever you are storing a large amount of energy, safety must be paramount. We have heard through a few different bills this Legislative Session that you want qualified people and qualified companies doing that type of work. You want to ensure training is available to them. I am comfortable with proper training, properly qualified individuals and qualified companies that can safely perform this work. This bill does not speak to the technology; it speaks to the storage as it exists in statute.

SENATOR HAMMOND:
My big concern is safety. You are attempting to store more energy in batteries. I want to learn more about that, but I can find out how it works later.

SENATOR PICKARD:
This is a lot to digest. You mentioned national security and how our current transmission system is risky. I remember sitting through the briefings with Vice Admiral Lee Gunn from the American Security Project on this with you, and we are aware of this. I assume the transmission lines we are looking at building are merely extensions of the existing system. How is this being built so we are addressing the security issues?

SENATOR BROOKS:
Slide 6, Exhibit B, shows one transmission line that connects northern Nevada to southern Nevada, one line. In northern Nevada, it is the Robinson Summit Substation outside of Ely where various connectivity exists at lower voltages to other parts of the State. This plan creates the redundancy of having that triangle. If you lose one line, two other segments can feed that same load. If you lose two lines, then that load is isolated, but this increases the redundancy. The redundancy in the lines is what creates the resiliency in the system.

If you look at the triangle on Slide 6, Exhibit B, do you know what is right in the middle of that triangle? One of the biggest national security resources in the entire world. Increasing redundancy in that area would be great.

SENATOR PICKARD:
Redundancy is one way to secure it. One of the points Vice Admiral Gunn discussed is since most of our transmission is open, exposed and visible from anywhere, it in itself presents a problem. Redundancy is the answer, and no silver bullet exists.

Section 10 deletes most of the provisions of the EV Infrastructure Demonstration Program. I am wondering why. Is it because it is obsolete? If so, why did we not delete the program. Instead, the language simply says the Commission shall adopt the regulations, and then it deletes the guidance. Can you explain it?

BOB JOHNSTON (Nevada Senate Democratic Caucus):
In the 2017 Session, as part of S.B. No. 145 of the 79th Session, the Legislature authorized NV Energy to create a demonstration program known as the Electric Vehicle Infrastructure Demonstration Program. That program continues and has a case now before the PUCN. We have a limited amount of funding. It is subject to the overall $295,270,000 cap under renewable programs in *Nevada Revised Statutes* (NRS) 701B. Sections 9 and 10 have to do with the phaseout of the EV Infrastructure Demonstration Program since transportation electrification planning becomes part of the resource planning at the utility.

The effective dates for sections 9 and 10 are timed so that program will phase out as the other one ramps up.

SENATOR PICKARD:
That was my assumption because we are well past the point of that program. I was here when it was established. The disconnect was maintaining the requirement for the Commission to adopt regulations, but then only eliminating the guidance did not make sense. If it is kept merely to manage the phaseout, then it makes sense. Is that why we are keeping it in place?

MR. JOHNSTON:
That is correct. First it removes the legal obligation for NV Energy to include the demonstration program in the company's annual plan filing. Second, it eliminates the whole provision of NRS 701B after the funding under that program has expired.

SENATOR PICKARD:
In section 21, subsection 3, we are distributing the infrastructure provisions in a 70-30 split; 70 percent of the costs of high-voltage transmission infrastructure projects are in the urban areas and 30 percent are in the less-populated areas. Can you explain the 70-30 split? Basically, is this an arbitrary division? I was thinking 70 percent went to the urban areas, 30 percent went to the rural areas, or maybe I have it backwards. Anytime I see round numbers, it looks like an arbitrary designation. I am wondering what went behind the figures?

SENATOR BROOKS:
The split is 70 percent in the south and 30 percent in the north. It is a mix of urban and rural in both the southern and northern territory. Sierra Pacific Power Company and Nevada Power Company under NV Energy are viewed in statutes as separate. Certain details are allocated separately, and certain details are allocated the same way. For this, 70 percent of the load is in the south, and 30 percent of the load is in the north. It serves the entire State to the benefit of Nevadans. It is distributing energy. An allocation based on energy usage was used in the past for these investment types.

SENATOR PICKARD:
Something we hear is the rural areas do not generally receive enough money to perform their business compared to what we can perform in the south. It feeds this sense of north-south divide. Why are we choosing these numbers? It sounds like it is an electrical load issue. If 70 percent of the load is down south, then it may be a geographical coincidence. I was struggling to determine why we chose the numbers. Is it only based on electrical load?

SENATOR BROOKS:
It is based on electrical load. Load is relatively tied to population, although both cold and hot temperatures can affect it as well. Temperature has a great deal to do with load. It is a load calculation; as a load infrastructure, the cost allocation is based on the load allocation.

SENATOR PICKARD:
As we are attempting to progress to a strictly electric-based society, the electrical load in the wintertime will go up substantially.

Section 31 is creating the Regional Transmission Coordination Task Force. A number of representatives are being appointed by different groups. I noticed in section 31, subsection 3, paragraph (a), subparagraphs (14) and (15), the Majority Leader of the Senate nominates one person on the Task Force and the Speaker of the Assembly nominates one person on the Task Force, but the minority has no one. Is there a reason why we are concentrating legislative input in the majority and not having any minority representation?

SENATOR BROOKS:
It is not intentional. We tried to limit representation on the Task Force to be as broad as possible without loading up too many from any one sector. I have already received criticism from people that it is too big of a Task Force. Some might say two Legislators is two too many. We thought limiting it to two Legislators the same way as the Legislative Commission would be the most efficient way to require the Majority Leader and the Speaker to make the appointments. By no means am I averse to choosing a Minority Party person as well. It makes the Task Force much larger.

I do not see a situation like this as partisan. You want to choose the Legislator in both the Assembly and the Senate who will perform the work, have an interest and maybe bring certain expertise.

SENATOR PICKARD:
Particularly since majorities and policies change, this is in the crucible of debate. Former U.S. Senate Majority Leader Harry Reid recently said we need a strong two-party system because it is in that crucible we vet things. This avoids that. I was wondering if we could have the core group, the minority leaders in both Houses, select two people, one from each party. I do not care how we organize it. We have seen this in this Committee a couple of times. It is not because I am

in the minority; it is because we need the breadth of experience and approach to develop the perspective needed.

SENATOR BROOKS:
As someone who sits on this Committee with my colleagues, I heard that argument made, and I do not disagree. It is to keep it to a manageable number. I received feedback from other sectors that should be on this Task Force. The Task Force makes a recommendation to the PUCN and a recommendation to us, the Legislature, that we may or may not choose to do anything with. I was keeping it as efficient as possible.

SENATOR PICKARD:
I agree, 16 people on the Task Force makes it difficult to come to a decision.

In section 44, subsection 7 regarding low-income households, residential customers and public schools, when I read public schools I understand that as K-12 schools. Why not broaden it to all education, public, private, K-12, secondary education, instead of limiting it?

SENATOR BROOKS:
Ultimately, I want to see it everywhere. This is, for lack of a better term, a pilot program on the initial investment. The taxpayers of the State are responsible for the transportation of public schools. They are not responsible for the cost of transportation outside of the public school sector. We can save tax dollars while at the same time achieve our policy goals. In the broader plan, absolutely nothing precludes every type of use and every type of education.

SENATOR PICKARD:
I did not view this strictly as a taxpayer savings. This is more of a consumer savings pilot. I was wondering why we were limiting it to public K-12 schools instead of the privates, Nevada System of Higher Education and the other facilities that might benefit.

SENATOR BROOKS:
Nothing in this program keeps it out of the organizations. We want to ensure we direct it specifically and intentionally toward the public schools. They contain a centralized and sophisticated transportation network where we obtain the best result with little cost. None of this works to drive down rates for ratepayers or to reduce carbon unless it is well-utilized. We do not want to put it in place for

show and it not get used. We want to put it in places where we obtain the highest use that gives us the best bang for our buck from carbon reduction, pollution and the ratepayers' standpoint.

SENATOR SPEARMAN:
This is comprehensive and good.

I am big on national security. This excerpt is from the Center for Naval Analyses. The article is "Advanced Energy and U.S. National Security."

> We anticipate that the growing demand for electricity will be met increasingly with distributed advanced energy systems harnessing…wind, solar, geothermal, hydro, hydrogen, and other energy sources. Because many of these systems can be decentralized and distributed, they can meet the energy needs of populations.

The U.S. Department of Defense is looking at hydrogen as an alternative fuel cell. At Hickam Air Force Base in Hawaii, it has been experimenting with hydrogen since 2006. It now has several buses with hydrogen fuel cells that transport the pilots to and from the tarmac. The military has four ways it can use hydrogen. It is not downing electricity. I am attempting to ensure we are broad in our thinking.

The military is using hydrogen fuel cells. The army is using it in unmanned aerial vehicles, undersea vehicles, light-duty trucks and certain heavy-duty trucks. The one that intrigued me the most was the wearable power systems the military is developing for people who go to combat. Lithium batteries are heavy. It is looking at experimenting with hydrogen for that wearable system.

I am thinking of this and want to ensure we are exploring our entire resources, geothermal, hydrogen fuel cells and others. Is there any room for the exploration of other sources of energy?

SENATOR BROOKS:
We have room for it, and you have a bill which does that. We have EVs coming. With the many vehicle manufacturers, we have hundreds of EVs available. I can go to my garage now and plug one in. I cannot buy a hydrogen-powered vehicle and be refueled by a hydrogen station in Nevada. We are dealing with here and

now, but we encourage the next, or the future, and what will happen with clean fuel.

This is about moving electricity and about storage. Hydrogen is energy storage. It takes energy to formulate the hydrogen, and hydrogen stores the energy and then turns that hydrogen into specific power, whether it is electricity or certain motion. Hydrogen fits into this in the future; hydrogen is not a thing that exists in Nevada now. We are taking full advantage of what is here now, what can put people to work and show the benefits to our communities immediately.

The subjects work together. While it may not address hydrogen, it is addressing a specific thing which is the electrification of transportation and transmission. Hydrogen does not compete with this; it complements it.

SENATOR HAMMOND:
Regarding the electric avenue, I have read articles stating we may see 8 percent EVs on the roadways by 2030, maybe more. The EVs are everywhere.

Senate Bill 448 has a significant investment of ensuring that no matter where the vehicles are coming from, they have a charging station. It is a significant investment, but I do not know if it is enough. Can you tell me the state of privatization or private investment in the charging stations? Sometimes, government kind of pushes for certain points to happen where we help to spur innovation and investment. Is that what you are attempting to do with this bill? At a point, the private businesses need to become involved as well.

SENATOR BROOKS:
I am glad you brought it up. It is about leveraging—leveraging public funds, ratepayer funds and otherwise private funds. This bill is directing the investment in charging the electrical infrastructure. I worked on development of charging infrastructure projects in my career. The charging piece of it is the absolute lowest-cost part. It is the electrical infrastructure to move it there and to provide the electricity to the charging station.

You are right, it is not enough by any means. It is a drop in the bucket of what is necessary, but it lays groundwork and begins investment that we can see private investment piggyback off. For example, Tesla wanted to build a charging station in Beatty; Valley Electric wanted to build a charging station in Beatty. They got together and split the cost on the electrical infrastructure to procure

that. By itself, either one would have had to pay the entire cost alone. That is why it is clear in this bill, that third-party ownership and rebates can be included. We are leveraging a $100 million investment into several hundred million dollars of investment in business models we have not even imagined.

We did not limit the ownership or placement of any of the charging stations because we want to leverage $100 million into much more money than that.

MR. BOBZIEN:
Senator Brooks' example of the leverage funding situation in Beatty was a perfect example. This is having to run wire to ensure the power is there so the charging piece at the end can be deployed.

The Nevada Electric Highway is in partnership with NV Energy and a number of the rural electric co-ops across the State, so we have had different models for the different territories. We have host sites, and private companies see the advantage of hosting the infrastructure as another way to expand their markets. People like to plug in, spend a bit of time there, come in and shop. What is contemplated in this plan is a way to level up the investment. My hope is it encourages even greater private investments, entrepreneurship and activity in this space to help build the EV charging infrastructure that is needed for the future.

MR. BROWN:
Beginning in the fall of last year, we saw a series of announcements by the major manufacturers of automobiles—Toyota, BMW and Volkswagen—of a real serious commitment to EVs. There will come a point mid-decade where suddenly we will reach a tipping point with respect to EVs given the size of the investment. I can furnish a couple of industry articles on that for the record.

To the earlier question, *The Wall Street Journal* story I referenced discussed the industrial storage batteries that allow for industrial storage of renewable energy.

SENATOR HAMMOND:
One question keeps coming to mind regarding the safety of battery storage. I need an idea of where we are with this. For instance, if a facility goes down and cannot deliver the energy we need, do we have the capabilities at this time

for batteries to replace the facility that goes down and is unable to deliver the energy at certain times? Are we there now with battery storage?

MR. JOHNSTON:
This is happening quickly. In the last three years, NV Energy has gone to the PUCN and requested approval of what is increasingly being called "hybrid projects," utility-scale renewable solar projects coupled with battery storage. As the projects stay on schedule and come online over the next three years, by 2024 NV Energy will have control in its system of 1,028 MW of 4-hour battery storage. The economic driver for signing the agreements and going forward with the projects was to shift solar production in midmorning to midday when demand is not as high to store that energy.

If you have a solar facility that can produce 100 MW, you could acquire 100 MW of capacity out of that unit in the peak hours from 4 p.m. to 9 p.m. It provides storage to the extent it is fully charged. It provides flexibility to the system operator if you have storage. The rationale was if we move forward with the projects, it was to meet summer peak loads.

SENATOR HAMMOND:
If one of the solar plants went down or went off-line for an extended period of time, maybe more than anticipated, how much can we anticipate the batteries take the place of the downed solar plant?

MR. JOHNSTON:
Battery energy storage systems are short-term storage. The energy systems are to save renewable energy to match your system load, so you can maybe shift it around within a 24-hour time period. But no, at maximum discharge, a maximum of four hours is in the pipeline now.

With the current economics, people are not envisioning battery storage being a solution for storing energy for days, months or long-term storage. It gets to what Senator Spearman was referring to what has been termed "green hydrogen" where you are using renewable energy, solar and wind to create hydrogen by electrolysis, and then hydrogen can be stored for a long period of time like natural gas or oil.

SENATOR BROOKS:
The technology exists. It is capable of managing the issues, and it is not cost-effective. That is not how we are utilizing it at this time. It is normally to shift the load for a few hours. It exists, but it depends on the application. For example, I maintain 25 kWh in my garage in an energy storage system which operates my home if there were a blackout. If that happened, I could run my home with solar indefinitely. It exists, and I pay dearly for it. It is about the economics.

SENATOR HAMMOND:
In section 31, putting in the Task Force is not about limiting the debate or the exchange of ideas. Sometimes, for both parties, it is nice to have someone there to report back to the larger Body, the caucus, as to what is happening. We are changing the direction of our energy policy in Nevada and adding to it in a major way. It would be nice to ensure we are collaborating with the Majority Party or vice versa in the future but ensuring someone is there who can report back. I like the idea of adding someone, despite the fact it is already large.

SENATOR BROOKS:
It is a great idea. As someone who has worked with you on interim committees, partisan politics does not factor into it. I have worked with Senator Pickard back in the Assembly on this language as we put it together. It is more about expertise and participation than to do with politics of party. I agree 100 percent and make that addition.

CHAIR HARRIS:
How might the transmission-only customers be affected with the project given they may not see any benefit of rates decreasing because they do not pay for electricity? Can you discuss the impact we may see on existing transmission-only customers?

SENATOR BROOKS:
Transmission-only customers do pay transmission rates and portions of the investment. Transmission-only customers will receive the benefit of the investment. Transmission-only customers by that name access the transmission system, and to make the transmission system more robust will gain access to more markets. We have language in S.B. 448 which directs the access to transmission-only customers so they can receive the benefits of the

transmission investment they will help pay for. Their benefit might be greater than the average ratepayer because they will directly access renewable energy projects and possibly other markets.

Section 39 does provide guidance that access should be made, although that is covered in the transmission-only tariff now in place. We want to make it clear when they petitioned for access, they have access to that transmission line. Customers in this State who are buying renewable energy in one part of our State are located in another part of the State. They could do more if there were fewer constraints on the transmission system. By creating this, the transmission-only customer gains more access to renewable energy at a lower price.

CHAIR HARRIS:
The way this is set up, if benefits do not materialize, ratepayers would be taking the entire burden of this being "a great thing." Is there anything that protects for the worst-case scenario? You mentioned Tesla and NV Energy going in together in Nye County wanting to do charging stations. But that was a 50-50 split. What is the utility willing to put forward to assure ratepayers will not end up holding the bag if things do not work out?

SENATOR BROOKS:
If I understand your question by "things do not work out," we do not use electricity, or we do not receive the economic benefits beyond the cost of electricity that we are anticipating?

CHAIR HARRIS:
It is the latter. We build this infrastructure for charging stations and we do not acquire enough EVs to increase the demand, or building out the transmission does not lead to the benefits we are anticipating and the prices end up not going down, although it should. I follow your logic; I do not disagree. Part of the reason why this is so difficult through the existing process is because the benefits are a bit likely but unknown. I want to know the utility is willing to say to the ratepayers "This is worth you taking the entire burden," as opposed to us sharing it or us as shareholders because we are so convinced it is worth making it on our own.

MR. CANNON:
This is a great example of a private-public partnership. We have a need that exists in Nevada. The transmission system in northern Nevada is fully constrained. No additional imports are available to come into northern Nevada. Unless we build infrastructure like this, our ability to support economic development down the road is limited. A transmission-only customer's ability to access the market is limited. The need for this infrastructure exists today. In addition to reliability concerns Senator Pickard raised, you can see that in northern and southern Nevada on Slide 6, Exhibit B, we jointly dispatch generation through one single line. If we lose that line, northern Nevada has to meet its energy needs by itself with a constrained system.

In addition, we cannot use low-cost energy to serve southern Nevada at opportune times. We can no longer economically dispatch our system. These economic benefits being discussed are in addition to the true reliability needs that Nevada has to address.

NV Energy is coming forward with private money and saying we are prepared to fund $2.5 billion into the State. Shareholders do not recover on that money until that asset goes into service. When that asset goes into service, through a contested proceeding with the PUCN where parties can intervene, every party is allowed to question every cost we put into the project. The PUCN then sets how much of the investment we can recover and the rate we can earn on that asset.

We will bring $2.5 billion to the table. We will put thousands of people to work today, and Nevadans will not be asked to pay for this investment until at least five to six years down the road. Nevadans receive the benefits of that immediate economic investment.

It is not a risk-free proposition. We do not know what the PUCN will approve. We will manage the project prudently and be reasonable in our expenditures. Many parties will intervene in that proceeding. We had many arguments over what costs were reasonable and prudent. We may not come out of that proceeding with 100 percent cost recovery. We will model one return rate for our ROI, but the Commission may choose a different return of investment. We go into this proceeding not knowing any of the numbers ahead of time. We go in trusting a balanced regulatory process is in place and a balanced outcome will

be delivered at the end of the process. But we do it to ensure Nevadans can get to work, and that is our goal.

CHAIR HARRIS:
It seems you just described the existing process, not the new process where once you submit an application and as long as it is not perceived deficient, that application will be approved. Inevitably, the costs will likely be passed on to ratepayers as it should in many circumstances but without that contested case that exists today. Am I misunderstanding that part of the bill?

MR. CANNON:
The legislation does require us to submit a plan. That plan is a contested proceeding. Other parties have the opportunity to intervene to provide feedback with certain findings in this legislation, then the Commission can approve the plan we submit. While that plan is more prescriptive as described by Senator Brooks already, it is not a foregone conclusion.

That is one piece of the legislation. This legislation neither changes nor guarantees for us the recovery on that investment. That is a separate proceeding and a separate process where we are moving forward with making a significant investment in Nevada, putting Nevadans to work, trusting that a balanced process exists. You are right. We will submit it in a general rate case down the road, and that general rate case will be submitted with much debate over whether we proceeded reasonably. The PUCN will then ultimately make a decision.

This legislation does not change that. This legislation has no guarantee we will recover the dollars of this investment. We need to proceed reasonably and then trust in the process on the back end that we have the opportunity to recover our investment and earn a reasonable return. It is kind of the regulatory compact which exists between the utility as a private entity and the State.

DANNY THOMPSON (International Brotherhood of Electrical Workers Local Union 396):
The International Brotherhood of Electrical Workers (IBEW) supports S.B. 448. This bill creates thousands of good jobs. I am talking about good-paying jobs with benefits, health care and retirement. It is a great economic opportunity for the State from the benefits received by building out the infrastructure as well as job creation.

ERNIE ADLER (International Brotherhood of Electrical Workers Local 1245):
The IBEW 1245 considers this a great bill in terms of job creation. The average wage on building transmission in this case is $106,000 a year, which is an amazing wage for this region. We support it. In addition, $49.3 million in sales tax will be generated by this transmission project which is returned to the county and State governments. It will be an economic boon for Nevada.

MICHAEL HILLERBY (Google):
Google supports S.B. 448, particularly around the provisions surrounding the regional transmission organization.

Google is proud to call Nevada home with a total committed investment of $1.8 billion across two data center campuses, the first of which in Henderson reached full operations in February.

Governor Sisolak's State of the State Address sent a clear message regarding Nevada's commitment. A clean energy future is important to Google, which helps the company meet its goal of 24-7, carbon-free energy by 2030. It begins with the data centers in Nevada and elsewhere. Nevada's participation in the regional transmission organization is a critical tool for achieving the State's clean-energy goals. We look forward to working with you and the State to help Nevada be at the forefront of the clean energy economy and bringing new technologies to the market.

ED GARCIA (Con Edison Clean Energy Businesses, Inc.):
Con Edison supports S.B. 448, specifically the sections dealing with energy storage projects. Con Edison develops, owns and operates utility-scale renewable energy projects and is one of the largest solar owners and operators in North America. Con Edison Clean Energy Businesses is one of the companies the director of GOE referenced as looking for opportunities for large-scale storage.

One of the biggest barriers to development of these types of projects is uncertainty. This bill goes a long way toward alleviating much of that uncertainty, and Con Edison looks forward to developing more storage and renewable projects in Nevada.

BAIRD FOGEL (Haas Automation):
Haas Automation supports S.B. 448, specifically sections 45 through 47.

People may know that Haas is a machine tooling and manufacturing company with plans to build a manufacturing facility in Nevada. It provides more than 2,000 high-paying, skilled-labor jobs that are deemed essential and, therefore, pandemic-proof.

The provisions of sections 45 through 47 which extend the Economic Development Electric Rate Rider Program to 2024, are a key component in the company's consideration and making southern Nevada a manufacturing hub. We look forward to working with local and State officials as we continue to develop plans.

SUSAN FISHER (Able Grid Energy Solutions; Ovation):
Able Grid supports S.B. 448, in particular the provisions of sections 3 through 8 relating to energy storage. Able Grid develops and builds low-cost energy storage assets that provide reliable and emissions-free capacity to manage physical and financial volatility of the energy markets. With the partners at IBEW, we want to see this expand to stand-alone energy storage. We understand this is a big step. We look forward to continuing to work with the sponsor over the Interim on this policy as the industry is further developed.

Ovation supports S.B. 448 regarding the rooftop solar portion, which we refer to as tenant solar. It is not something put together by Senator Brooks in a vacuum; we have had discussions with him for over four years. We had legislation during the Eightieth Legislative Session, but it was not quite gelled. We hope it passes this Session. This helps flatten out energy costs for both landlords and tenants. It is a large system going into one large meter rather individually metered for the tenants.

CHRISTI CABRERA (Nevada Conservation League):
The Nevada Conservation League supports S.B. 448. As home to one of the fastest-warming cities in the U.S., Nevada is already feeling the impacts of climate change. We have made strides to become a cleaner and greener state but are still not on track to meet Nevada's climate goals with plenty of work ahead.

Senate Bill 448 allows the State to continue to invest in a clean energy economy, make strides in achieving our carbon reduction goals and put more Nevadans to work in the fast-growing green energy economy. This bill prioritizes historically underserved communities. NV Energy is required to spend at least

5 percent of its energy efficacy program on low-income customers. This bill doubles the investment to 10 percent, aligning our State with the national average. Targeted energy-efficiency measures lessen the strain for families paying high energy bills and prevent them from facing the difficult decision between paying bills and putting food on the table.

This bill leads to jobs and cost savings to power Nevadans' economic recovery with a focus on underserved communities that have been hit the hardest by climate change and the economic downturn. At the same time, the policies put us on a path to meet our goals of 100 percent clean energy and net-zero GHG emissions by 2050.

ANNETTE MAGNUS (Battle Born Progress):
Battle Born Progress supports S.B. 448. This bill contains many good provisions, but I want to speak to a few highlights we are glad to see in this bill. Senate Bill 448 expands energy efficiency programs to reduce the cost of energy particularly for low-income families while reducing pollution. In Las Vegas and in Reno, two of the Nation's fastest-warming cities, conserving energy with greater efficiency is imperative to keep costs and energy usage manageable in our hot summers.

This bill invests in building EV charging stations around the State. It not only incentivizes individuals, businesses and local governments to transition to EVs but also creates thousands of good-paying jobs in the transportation sector. It makes Nevada among the Nation's leaders for electrifying transportation and cutting harmful vehicle emissions.

This investment includes 40 percent of this EV charging infrastructure in historically underserved communities including communities of color. These communities face greater risks of asthma and other respiratory diseases due to air pollution as confirmed in recent data from the American Lung Association air report.

We appreciate the Senator for hearing the voices of the community who spoke out about this issue for years and taking steps to address it. This bill helps Nevada reach the Governor's emission reduction goals to fight climate change and create thousands of jobs.

NATE BLOUIN (Interwest Energy Alliance):
Interwest is a regional trade association representing large-scale solar, wind and storage companies developing the renewable resources Nevada needs to meet the State's climate and energy policy goals. Interwest supports S.B. 448. This landmark legislation strengthens Nevada's position as one of the Nation's leaders in the new energy economy.

Interwest supports two pillars of S.B. 448. First is the direction given to Nevada utilities to join an RTO by 2030. Joining an RTO expands access to energy resources from across the region to complement Nevada's strong solar and geothermal capacity. The RTO reduces customer costs by allowing utilities to rely on diverse and low-cost renewable energy resources and by coordinating transmission planning and dispatch across a large region while sharing the costs across a broader base.

Second, S.B. 448 supports regional energy transmission by requiring a plan for construction of new high-voltage transmission lines which facilitate joining an RTO. This section is crucial to building projects already in the planning phase and brings new jobs to Nevada while opening up new areas to solar, wind and geothermal development. This bill rightly identifies transmission as a critical piece of the State's energy and climate strategy. While we support other aspects of the bill, including the expansion of the renewable energy tax abatement to energy storage projects, the two pieces I focused on are among the most important steps Nevada can take to meet the State's climate and energy goals. It positions Nevada to become a national leader in renewable energy development and bolsters the State's economy with new jobs and revenues.

CAROLYN TURNER (Nevada Rural Electric Association):
The Nevada Rural Electric Association and its utility members support S.B. 448. The Nevada Rural Electric Association represents the collective interest of ten consumer-owned utilities throughout the State which are democratically governed and operated on a not-for-profit basis. Each utility is motivated first and foremost to provide safe, reliable and affordable electric service to the communities it serves. Local governance resulted in the deployment of innovative solutions, for instance, solar community programs, earlier adoption of low-carbon energy resources and expansion of EV charging infrastructure in partnership with GOE.

Nevada Rural Electric Association members acquire and deliver electricity independently. However, the majority of our members receive transmission services from NV Energy. Therefore, Nevada Rural Electric Association members have a vested interest in ensuring sufficient capacity exists in the State's transmission system to support the economic development goals and vitality of Nevada communities both rural and urban.

As demand in the energy system has grown in the State, congestions occurred within the confines of the existing infrastructure. It is critical that future projects address the constraints and prioritize the needs of native, or Nevada, loads within our State borders. In addition to investment in physical infrastructure, the legislation before you contemplates the formation of the organized energy market in the West over the next decade. We take no position on any particular market construct at this time; however, we support the establishment of the Regional Transmission Coordination Task Force as envisioned in section 31. We want to thank the sponsor for including a representative of the consumer-owned utility industry on the Task Force in recognition of the unique perspective we offer.

Our Association looks forward to the opportunity to work collaboratively with other stakeholders to ensure that participation in an organized market is achieved with the best interest of Nevadans in mind.

ALAN MOLASKY (Ovation Development Corporation):
Ovation has built and manages over 8,000 apartment homes. In addition to our market-rate communities, Ovation is one of Nevada's major providers of senior affordable housing.

Ovation Development Corporation supports S.B. 448, specifically section 36 that enables owners of multifamily properties to install renewable energy systems allowing residents to use clean renewable energy produced onsite. Ovation supports this bill. First, we learned about the threat to our planet from global warming, and this bill helps reduce our carbon footprint by expanding the use of renewable energy. Second, homeowners want and should have the choice to power their homes with renewable energy.

I will reiterate the provisions of section 36 that only apply to master-metered properties. A flat amount is simply rolled into the rent as opposed to individually

metered units where tenants sign up with the local utilities and receive individual utility bills, which go up and down with the season.

ANN SILVER (Reno Sparks Chamber of Commerce):
The Reno Sparks Chamber of Commerce supports S.B. 448. With the passage of this bill, Nevada establishes a foundation for meeting its climate goals while businesses reduce carbon footprints and develop a sustainable, robust and clean energy economy. To accommodate our increasing share of renewable energy, we must include an updated transmission network. Building out this network quickly and efficiently provides a boast to Statewide commerce.

We support the bill's proposal to begin the investment in infrastructure needed to support clean EVs, buses, bikes and other modes of transportation. By building out a network of charging stations, Nevada can help more businesses and consumers make a thoughtful transition to EVs. Strategic placement of this infrastructure can help business as it entertains, feeds and attracts EV tourists with time for their vehicles to recharge.

Our Chamber supports elements of this bill that align energy planning processes with our State climate strategy goal of reaching carbon-free resources. It is a commonsense measure which enhances Nevada's reputation as a clean energy leader, protective and respectful of our natural resources and supportive of good business practices.

DYLAN SULLIVAN (Natural Resources Defense Council):
The Natural Resources Defense Council, an environmental group with 25,000 members and activists in Nevada, supports S.B. 448.

To combat air pollution that makes communities more vulnerable to Covid-19 and meet the State's goals for reductions of emissions of GHGs, Nevada needs to quickly transition the transportation sector to zero-emission vehicles powered by renewable electricity. This requires an active partnership between the electric industry, labor and independent firms to deploy charging infrastructure for all types of light-, medium- and heavy-duty EVs.

Senate Bill 448 jump-starts efforts and requires that no less than 40 percent of the investments be made in the historically underserved communities hit hardest by the pandemic and by air pollution.

Installing electrical equipment needed to charge the EVs not only keeps workers on the job, it accelerates transportation electrification that benefits everyone. M.J. Bradley and Associates estimates that widespread adoption of EVs in Nevada could yield $14 billion in avoided consumer expenditures, for instance gasoline and maintenance, $3 billion in environmental benefits, and $3.6 billion in reduced utility bills by 2050. This is because EVs can be charged when plenty of spare capacity is available on the grid which brings in new revenue in excess of the cost to serve that load, putting downward pressure on utility rates for the benefits of the utility customers.

The Legislature should take the estimates into account because they comport with what has already been documented in the real world.

LAURA GRANIER (Nevada Resort Association):
The Nevada Resort Association is here in technical opposition, even though I am cautiously optimistic, because of the timeline we find ourselves in. With 14 days left before sine die, complex issues, a lengthy bill and subtle language, we are concerned about unintended consequences that could be harmful to customers. We are supportive of transmission renewable energy and EV infrastructure investments.

Nevada Resort Association is a world-class leader in sustainability, environmental protection and clean energy development. We do not oppose the Greenlink transmission projects or the timeline. The Senator has proposed it be constructed by 2028, even though the Commission determined the construction of Greenlink North puts too much risk on utility customers at this time.

We proposed clarifying changes that will not affect the completion of the projects or the timeline by 2028 but ensure the Commission retains authority through regulatory discretion to protect customers from increased rates and making projects more expensive than they need to be.

The utility discussed customer refunds. In 2020, during the Covid-19 pandemic, the utility overearned by approximately $100 million only for the Nevada Power Company. We calculate that, based on their filings, $62 million is the customer share of the $100 million-plus, or over 50 percent. It does not voluntarily give the refunds back. The refunds were fought for by the Bureau of Consumer Protection and members of the Nevada Resort Association that is representing customers, including its employees. Thanks go to the Commission's jurisdiction

over the issues to ensure the utility does not overcollect. The utility is continuing to overearn.

The Commission requires the tools to keep an eye on that. We are not saying the utility should not earn an ROI. It should. But through the integrated resource plan process, it is allowed to recover its costs. We are concerned about EV infrastructure and ensuring any rate set for the energy sent to the units is set not in a 90-day time period but in a reasonable proceeding where the PUCN has the time to make the right decisions.

PATRICK DONNELLY (Center for Biological Diversity):
The Center for Biological Diversity is a strong proponent of renewable energy transition and the complete decarbonization of our economy. Many measures exist in this bill we support, but we oppose S.B. 448. This bill takes a shoot-first, ask-questions-later approach with regard to the deployment of transmission lines and large-scale renewable energy production. Senate Bill 448 completely forgoes any level of comprehensive planning or environmental review and instead throws the doors open to our public lands with new transmission lines accelerating huge amounts of new industrial energy production in remote parts of our State.

Large-scale renewable energy production and high-voltage transmission line deployment can have significant and environmental impacts on wildlife, public lands, water resources and historically marginalized communities. Since the introduction of Greenlink West at the PUCN, a dozen or more solar energy projects are being proposed along its potential alignment. While that might sound like a good thing to most people, it has been done with no planning for where the projects will go. In a few cases, it is sited in disastrously bad places for wildlife and the environment right on the doorstep of national parks.

Instead of instructing State agencies to complete a clear-eyed comprehensive review of where renewable energy might be appropriate in this State, S.B. 448 would throw open the doors to our most wild and pristine landscapes and rely on the tender mercies of the market and fossil fuel companies like NV Energy to decide the fate of Nevada's wildlands.

It gets to a fundamental problem. NV Energy is the fossil fuel industry. Its decade of polluting our climate has put us on the brink of climate disaster, and now we are letting NV Energy in the driver's seat while we try to clean up its

mess and avoid climate catastrophe. We appreciate a few of the elements of this bill, but S.B. 448 results in significant harm to our public lands and wildlife, and we oppose. We support renewable energy but not in this way.

KEVIN EMMERICH (Basin and Range Watch):
Basin and Range Watch opposes S.B. 448 which was introduced on Thursday. We have not had time to review this bill. It is designed to create a big transmission center in Nevada, but I do not hear anyone discussing the environmental impacts or impacts to communities.

The Greenlink West project, which will be over 300 miles long and 20 percent on private land, requires eminent domain for many people in the Mira Loma area. This should be discussed because most people do not even know about this project. Environmentally, Greenlink West goes near Walker Lake. It will be impossible to hide from view. That is a bald eagle wintering area, and birds do crash into power lines. It is a known fact.

An area where this Greenlink West power line will be built is in a pronghorn breeding habitat near Scotty's Junction, a Nevada entrance to Death Valley National Park. Power lines designed for Greenlink West have supporting guidewires, which have been known to decapitate large game, such as wild horses and pronghorns.

We will see applications for solar next to Death Valley National Park in areas that are the last stronghold of western joshua trees. Because of the Greenlink lines, I know of solar applications in that area. Now an important sage grouse habitat, desert tortoise habitat and many different types of wildlife habitats are being threatened.

We want to state that transmission lines cause wildfires, droughts and increased heat that is seen from climate change. This will be tacked on to the ratepayers. The solar projects and the transmission are not worth it.

PETER KRUEGER (Petroleum Marketers and Convenience Store Association):
The Petroleum Marketers and Convenience Store Association regards itself as surrogates for the consumer. If this Committee can ensure a competitive and dynamic market is governing refueling, including alternatives similar to electricity, you make the transition more affordable and effective to the public. We are eager to work with the bill sponsor and help ensure that EV charging

stations are available to Nevadans. Three of our members made private investments in EV charging, and they want to continue.

IAN BIGLEY (Progressive Leadership Alliance of Nevada):
While Progressive Leadership Alliance of Nevada appreciates the intent to limit brownouts in urban areas across the West, dedicated funding for historically underserved communities and living wage jobs, our belief for our transition to a renewable energy economy should be just and put people and planet first. This transition must ensure distributed generation can provide for communities to own their power not only access renewable energy.

We have a number of concerns regarding S.B. 448. Unfortunately, with the swiftness of this bill hearing, we were unable to connect with the bill sponsors prior to today but are looking forward to having that discussion.

The bill is largely focused on single occupancy vehicles when we should be fundamentally changing the way we move by prioritizing mass transit. The representation on the Task Force is unbalanced, leaning heavily toward corporate interests while representation for the general public is specifically limited to three. Furthermore, the Task Force leaves out Nevada's sovereign Indigenous nations.

This bill paves the way for Western Shoshone and Paiute lands across western Nevada to become a massive sacrifice zone to high-voltage transmission structures to support large-scale centralized energy generation. It is essential we include these communities in the decision-making process.

Crucial to our transition to renewable energy, we need a distributed energy grid which facilitates numerous small-scale generators sited on rooftops and historic destroyed areas, for instance, abandoned mine lands. We need to allow communities to own their power. This is essential to limiting sacrifice zones and ensuring Nevadans, not only corporations, benefit from this transition. While this bill mentions distributed energies, the directive to focus on high-voltage transmission and large-scale generation limits the feasibility of the truly distributed generation system.

A just transition to a renewable energy economy must shift us from an extracted economy to a regenerative economy and address historic inequities. We urge you take these concerns into consideration.

ANDREW MACKAY (Nevada Franchised Auto Dealers Association):
We are the trade association that represents new automobile and heavy truck dealerships across Nevada. We are by no means experts in energy policy and is why we are neutral on this S.B. 448.

It is important to note that we do support a robust infrastructure plan. To spur widespread consumer acceptance and adoption of EVs, strong and reliable energy infrastructure is a key aspect of this overall strategy. Our automobile manufacturer partners have committed to spending nearly $250 trillion to develop and bring to market new EV models, including 18 this year, 34 next year and over 100 different models by 2025.

A robust charging infrastructure has a positive impact on consumer's consideration of purchasing a new or used EV. Senate Bill 448 is essential in making this happen.

Our member dealers have invested millions of dollars and will invest millions more in tooling and employee training related to EVs. We are excited to bring more EVs, both new and used, to our customers and the market as a whole.

CESAR DIAZ (Charge Point):
Charge Point is neutral on S.B. 448. Charge Point is a leading provider of EV charging stations and network services in North America and the globe. Charge Point's network includes more than 650 charging spots in Nevada. In addition, Charge Point drivers have access to hundreds of additional charging ports in Nevada through roaming agreements. We are seeking modifications on this bill. From Charge Point's perspective, we support the efforts to accelerate the transportation electrification. While this bill recognizes importance of diversity and ownership of charging stations, we feel the bill could benefit by clarifying the mechanisms to achieve its diversity and ownership.

Section 49 pertains to EV charging infrastructure that will be developed between 2022 and 2024. We request provisions be added to support increased consumer choice, competition and innovation in the EV charging and private capital investment. This language is already contained in section 14 and should also be in section 49 to ensure a competitive market for EV charging services at present.

With the minor changes, we trust this allows the EV charging market to develop in a competitive matter, attracting private capital which lowers the cost and the risks for the ratepayer.

JAINA MOAN (The Nature Conservancy):
We are here in a neutral position on S.B. 448. The Nature Conservancy supports a new energy economy and investments in clean energy, which are necessary for addressing our urgent threat of climate change. We trust any scenario for energy buildout in Nevada should include strategic implementation that allows for what drives our economy while balancing impacts on our ecosystems. This can be done with smart-from-the-start planning.

The State Climate Strategy published in December 2020 highlighted the need for smart-from-the-start renewable energy planning and the complex challenges for Nevada. A smart-from-the-start energy plan identifies and prioritizes lower impact areas where renewable energy generation, storage and transmission can be deployed while minimizing impacts to natural lands, cultural resources, recreation and other conservation values.

By applying such an approach, the future transmission plans under consideration in the State allow us to achieve our climate goals while creating a more efficient, equitable and comprehensive process. Such a process generates value for parties by harnessing knowledge from diverse stakeholders. Synthesizing this knowledge improves planning, permitting, coordination and implementation decisions and increases the odds that renewable projects minimize costs, maximize economic benefits and prevent avoidable mistakes.

We want to alert the Committee to our written testimony (Exhibit C). Thank you for consideration of our comments.

CHAIR HARRIS:
We will move to the work session on S.B. 442.

SENATE BILL 442: Prospectively eliminates the program to provide a partial abatement of property taxes for certain buildings and structures which meet certain energy efficiency standards. (BDR 58-1070)

SUSAN SCHOLLEY (Policy Analyst):
I will read from the work session document (Exhibit D) on S.B. 442.

SENATOR PICKARD:
I am in agreement that we do not want to brand every building being built with adopting the new *International Energy Conservation Code*. It appears this is Statewide although it is a local designation or decision. I am not comfortable with eliminating what has been a successful program of developing energy-efficient buildings. We are eliminating the incentive without putting a new incentive in place. I am concerned this will stall. I will vote no because I am not comfortable, although I support the idea. I may change my vote on the Floor.

SENATOR HAMMOND:
I am a yes with reservation.

SENATOR BROOKS:
Is this the amendment where the Nevada Resort Association wanted to continue to receive tax credits for a longer period?

CHAIR HARRIS:
It is my understanding this is an amendment submitted from the stakeholders.

> SENATOR BROOKS MOVED TO AMEND AND DO PASS AS AMENDED S.B. 442.
>
> SENATOR SPEARMAN SECONDED THE MOTION.
>
> THE MOTION CARRIED. (SENATOR PICKARD VOTED NO.)

* * * * *

CHAIR HARRIS:
We will return to the hearing on S.B. 448.

SCOTT LEEDOM (Southwest Gas Corporation):
Southwest Gas supports many of the provisions of S.B. 448. We have a concern with one section of the bill and wanted to bring it to the Committee's attention.

Section 35 states no presumption of prudence in the public utilities rate case filings exist. This issue of rebuttable presumption in the public utility's burden of

proving reasonableness in a rate case filing is a subject of an active appeal to the Nevada Supreme Court. With the case ongoing and yet heard by the Court, we feel it is premature for the Legislature to weigh in on the policy prior to the Justices ruling on the issue. We are concerned with the precedence it sets with the Legislature to adopt policies that are subject to active appeals being considered by the Nevada Supreme Court.

It is our hope the Legislature waits and determines what the Nevada Supreme Court concludes prior to taking action on this issue.

JOHN HADDER (Director, Great Basin Resource Watch):
Great Basin Resource Watch is neutral on S.B. 448. The general public had little time to consider the contents of this bill before this hearing. Senate Bill 448 needed a more encompassing, inclusive process.

We are in a precarious position of needing to take swift and prompt action to restore the climate balance. Largely, the actions focus on reducing the usage of GHG, mostly from the burning of fossil fuels. Electrical generation and transportation represent roughly 25 percent and 27 percent respectively of GHG contributions in the U.S. Therefore, shifting these sectors aggressively away from fossil fuels, which is inherent in S.B. 448, to renewable energy and electrification of transportation, a transition using new technology and materials, is at hand.

What is being envisioned is a massive increase of mining for the new materials. The expansion of existing mines and development of many new mines goes hand in hand with aggressive renewable energy goals and EV deployment in the absence of other policies to reduce demand and reuse materials. Large-scale mining is destructive to natural ecosystems and often disruptive to hosting communities.

Metals mining is one of the world's dirtiest industries and responsible for 10 percent of global change impacts, according to the United Nations Environment Programme. Great Basin Resource Watch supports transitioning from fossil fuel vehicles. However, the deployment must be done judiciously. Electric vehicles, like other technologies, require increased demand for many materials like lithium, cobalt, nickel, rare earths and others.

No plan exists to address the inequity of frontline communities shouldering the effects of mining for the minerals. Thacker Pass is a good example of pressure on frontline communities.

Great Basin Resource Watch is calling for a just transition for both environmental justice and climate justice perspectives. It seems better to aggressively develop our public transit and otherwise minimize vehicle miles traveled, particularly passenger vehicles, and decrease demand for materials and extraction. This decreases GHGs.

CHELSEY HAND (Great Basin Resource Watch):
While our position is neutral, we see many shortcomings with S.B. 448.

First, there is the lack of emphasis on public transit and others … (unintelligible statement) … impact modes of transit. There should be an emphasis on how to move people away from single occupancy in vehicles. We need to reduce emissions and demand for materials or reduce the need to mine more materials. Failing to address the fundamental problems of consumption and transportation inefficiency in the U.S. further exacerbates environmental injustice and likely will not solve the underlying problem.

Second, there is no directive regarding recycling. The first sections … (unintelligible statement) … the importance of fostering recycling, particularly in product design. Recycling comes in as less resource-intensive than raw extraction. This could reduce raw extraction by 25 percent to 55 percent, according to the recent report sponsored by Earthworks.

Third, there is a lack of emphasis on distributed generation. Distributed generation is more in the public interest than using already disturbed land. It is more energy efficient since the electricity is used close to the demand, minimizing transmission losses. It creates more employment in general and over the long term importantly tends to provide employment to local and smaller electrical technicians and companies. It is an economic justice concern as well.

Fourth, long-range transmission development is too aggressive in the bill. This appears to benefit the utility the most.

CHAIR HARRIS:
We will close the hearing on S.B. 448. Seeing no further business to come before the Committee, the meeting is adjourned at 7:01 p.m.

RESPECTFULLY SUBMITTED:

Debbie Shope,
Committee Secretary

APPROVED BY:

Senator Dallas Harris, Chair

DATE:

EXHIBIT SUMMARY				
Bill	**Exhibit Letter**	**Begins on Page**	**Witness / Entity**	**Description**
	A	1		Agenda
S.B. 448	B	2	Senator Chris Brooks	Presentation
S.B. 448	C	1	Jana Moan / The Nature Conservancy	Neutral Testimony
S.B. 442	D	1	Susan Scholley	Work Session Document