

**MINUTES OF THE MEETING
OF THE
ASSEMBLY COMMITTEE ON GROWTH AND INFRASTRUCTURE**

**Eighty-First Session
May 25, 2021**

The Committee on Growth and Infrastructure was called to order by Chair Daniele Monroe-Moreno at 2:34 p.m. on Tuesday, May 25, 2021, Online and in Room 3143 of the Legislative Building, 401 South Carson Street, Carson City, Nevada. Copies of the minutes, including the Agenda ([Exhibit A](#)), the Attendance Roster ([Exhibit B](#)), and other substantive exhibits, are available and on file in the Research Library of the Legislative Counsel Bureau and on the Nevada Legislature's website at www.leg.state.nv.us/App/NELIS/REL/81st2021.

COMMITTEE MEMBERS PRESENT:

Assemblywoman Daniele Monroe-Moreno, Chair
Assemblyman Howard Watts, Vice Chair
Assemblywoman Tracy Brown-May
Assemblyman John Ellison
Assemblyman Glen Leavitt
Assemblyman C.H. Miller
Assemblywoman Sarah Peters
Assemblyman Tom Roberts
Assemblywoman Shondra Summers-Armstrong
Assemblyman Jim Wheeler
Assemblyman Steve Yeager

COMMITTEE MEMBERS ABSENT:

None

GUEST LEGISLATORS PRESENT:

Senator Chris Brooks, Senate District No. 3

STAFF MEMBERS PRESENT:

Katie Siemon, Committee Policy Analyst
Jessica Dummer, Committee Counsel
Devon Kajatt, Committee Manager
Lori McCleary, Committee Secretary
Trinity Thom, Committee Assistant



OTHERS PRESENT:

Doug Cannon, President and CEO, NV Energy

David Bobzien, Director, Office of Energy, Office of the Governor

Michael Brown, Executive Director, Office of Economic Development, Office of the Governor

Bob Potts, Deputy Director, Office of Economic Development, Office of the Governor

Leslie Mujica, Executive Director, Las Vegas Power Professionals

Bob Johnston, Policy Advisor, Nevada State Democratic Caucus

Danny Thompson, representing International Brotherhood of Electrical Workers, Local 1245 and Local 396

Matthew Griffin, representing Switch

Dan Musgrove, representing Southern Nevada Building Trades Unions

Susan Fisher, representing Ovation Development Corporation; Cyrq Energy; and Able Grid Energy Solutions

Mackenzie Warren, representing Nevada State Apartment Association

Tom Polikalas, representing Western States Hydrogen Alliance

Baird Fogel, representing Haas Automation, Inc.

Sarah Steinberg, Principal, Advanced Energy Economy

Carolyn Turner, Executive Director, Nevada Rural Electric Association

Rudy Zamora, Program Director, Chispa Nevada

Laura Granier, representing Nevada Resort Association

Jaina Moan, External Affairs Director, The Nature Conservancy

Patrick Donnelly, Nevada State Director, Center for Biological Diversity

Jessica Ferrato, representing Solar Energy Industries Association

Rose McKinney-James, representing Valley Electric Association

Andy Donahue, representing Laborers-Employers Cooperation and Education Trust

Angie Dykema, Nevada Representative, Southwest Energy Efficiency Project

Dylan Sullivan, Senior Scientist, Climate and Clean Energy Program, Natural Resources Defense Council

Richard "Skip" Daly, representing Laborers Union, Local 169

Cesar Diaz, Senior Policy Manager, ChargePoint, Inc.

Matt Rubin, Clean Energy Program Analyst, Western Resource Advocates

Emily Duff, Manager, State Policy, Ceres

Rob Benner, Secretary-Treasurer, Building and Construction Trades Council of Northern Nevada

Wendi Newman, Executive Director, Unified Construction Industry Council

Elsbeth Cordua DiMarzio, representing Toiyabe Chapter, Sierra Club

Chair Monroe-Moreno:

[Roll was called. Committee rules and protocol were explained.] We only have one bill hearing today, Senate Bill 448 (2nd Reprint). I am working on getting an overflow room for those of you waiting in the hallway. Due to the late start, we will have to limit comments. We will have two minutes each for comments in support, opposition, and neutral. I will have

to limit each presenter to 15 minutes because most of us have a 4:30 p.m. committee we have to get to. I will open the hearing for Senate Bill 448 (2nd Reprint) and welcome Senator Brooks to the Assembly Committee on Growth and Infrastructure.

**Senate Bill 448 (2nd Reprint): Revises provisions governing public utilities.
(BDR 58-46)**

Senator Chris Brooks, Senate District No. 3:

If it is okay with you, Chair Monroe-Moreno, if I could be joined at the table by Bob Johnston, who is a policy analyst for the Senate Democratic Caucus and helped me work on this bill and a few others.

Chair Monroe-Moreno:

Welcome to the table, Mr. Johnston.

Senator Brooks:

I have a PowerPoint presentation [[Exhibit C](#)], but I will not walk through every slide due to our time constraints. The slide deck was presented in a binder to the Committee members with some other exhibits. I will put the presentation up on the screen so we can all take a look at it.

Unfortunately, I cannot open the file, but you each have the presentation in front of you.

Senate Bill 448 (2nd Reprint) is about my desire to address the climate crisis that faces us, while creating good, high-paying, local jobs and economic opportunities for the state of Nevada and industries within the state of Nevada. Senate Bill 448 (2nd Reprint) really hits upon a few key points: provide economic diversity; provide new, high-paying jobs; increase grid resiliency in the state; provide new tax revenues; decrease carbon emissions and air pollution; and increase economic environmental justice for Nevadans.

The way S.B. 448 (R2) tries to accomplish these goals is by taking advantage of some of the benefits and resources we have here in the state of Nevada. Nevada has almost no fossil fuels, so we import over \$8 billion a year in fossil energy in the form of gasoline, fuel, natural gas, and electricity. We have abundant renewable resources in solar, geothermal, wind, and hydropower. Geographically, we are located right in the heart of the western electric grid.

Chair Monroe-Moreno:

Senator Brooks, I need to interrupt you for a moment. For those who were waiting in the hallway, we now have an overflow area available. If you are not presenting or speaking today, you can make your way to Room 3137.

Senator Brooks:

We are also adjacent to the largest energy and economic load in the entire United States. We have a well-established workforce here in Nevada. We have unions and apprenticeship programs, community colleges, construction industries, and universities and research facilities. We have very good infrastructure, mainly in southern Nevada, with an international airport, relatively new roads and rail, and new transmission and distribution systems. Nevada also has a very business-friendly climate. It is easy to do start-ups here because we have no corporate income tax and we have many programs and policies that support energy projects. All of this sets the table for what we tried to accomplish in S.B. 448 (R2).

Senate Bill 448 (2nd Reprint) is made up of about eight different components. The major components are transmission infrastructure, transportation electrification, energy efficiency, rooftop solar, resource planning to reduce carbon emissions, energy storage, and Economic Development Electric Rate Rider Program. The last thing the bill does is it has some regulatory cleanup that applies to some of the provisions of this bill moving forward.

I will briefly go through the bill and then jump right into questions. You all have the slide deck in front of you and hopefully have had a chance to look at it over the last couple of days.

The transmission infrastructure piece does two things. One of the main things it does is it directs the utility to make a \$100 million investment in charging infrastructure in the places where Nevada needs charging infrastructure the most. The other thing it does is it creates a planning process within the utility planning process on the electrification of transportation.

Electrification of the transportation sector is coming as a result of technological advances, dropping prices, and consumer demand. The number one hurdle for the adoption of electric vehicles in any state, let alone Nevada, is the lack of charging infrastructure for those Nevadans who do not have access to it in their home, do not own their home, or do not have it at their place of work, which is the vast majority of Nevadans. To benefit the most from the low cost of ownership of electric vehicles, the environmental benefits, and the air pollution benefits of electric vehicles, we need to make charging infrastructure available for Nevadans. The other benefit of that is it drives down the prices of electricity for all other Nevadans as we see more and more charging take place.

Another piece of the bill is the transmission infrastructure. On the fifth slide of the slide deck [page 5, [Exhibit C](#)], it shows a picture of the high-voltage bulk transmission system in the western United States. All around Nevada is a spiderweb of high-voltage transmission lines that move energy around the West. Nevada is a very conspicuous hole in that donut. By just building a few lines, it would connect the dots between some of our largest loads and largest generation resources in neighboring states. It would open the opportunity for Nevada to become a hub of energy trading and clean energy trading across the entire western United States. I believe Mr. Cannon is going to speak about that as well when I get done.

This bill directs the investment in transmission lines across western Nevada and central Nevada to connect three large energy hubs that we have in the state of Nevada. In the eastern part of Nevada, we have Robinson Summit Substation. In the western part of Nevada, we have Fort Churchill Generating Station, not too far from here. In southern Nevada, we have one of the most busy and active energy hubs in the entire United States right outside of Las Vegas, with the Mead, Marketplace, and Eldorado Substations. A lot of that infrastructure was put in place almost 100 years ago by the Hoover Dam.

By connecting the dots on those three energy hubs, we could then access markets in the Northwest, for instance, where we could have very low-cost, zero-carbon hydropower; or in Wyoming and Idaho where we have wind; or in the southwest part of the United States where we have excess solar and geothermal generation. By connecting all of those together, it makes a far more resilient grid and lower-priced energy in the future because we have access to other markets.

We just saw what happened in Texas, where their transmission system was isolated from the rest of the country. Not only can there be a failure if there were high-load incidents, but there is also price volatility associated with that. By spreading the load and generation across an entire region, there is more pricing stability, lower prices, more access to markets, and more resiliency in the transmission system. That lower-cost electricity gets passed on to all ratepayers and all consumers.

Jumping back to the transportation electrification, one of the benefits is the reduction in pollution as well. We find pollution disproportionately affects traditionally underserved communities. There is a tremendous amount of data that shows asthma and other pollution-related ailments, sicknesses, and diseases are concentrated in areas where traditionally underserved communities live and have lived. That is no different in southern Nevada or northern Nevada than it is anywhere else in the country. By trying to aim and direct a minimum of 40 percent of all the investments made in this electrification infrastructure plan toward those communities, we are trying to combat what has been the disproportional negative effects of pollution and, to a certain extent, climate change in these communities, but also direct the benefits and opportunities to those same communities.

Throughout this bill, you will see where that definition is used. Rudy Zamora from Chispa Nevada will also be presenting. I have worked with him over the last year to come up with a definition and data to support the definition in the implementation of this plan to help target the historically underserved communities. I want to thank Chispa and the Natural Resources Defense Council for the work we have done over the last year.

Forty percent of the investment in electrical infrastructure for charging would be directed toward those communities. Twenty percent would be directed toward the entertainment and resort communities. Where do many Nevadans work, play, and need access to charging? That would be in those same resort areas. Where are all the transportation network companies and taxis? There have been a few bills moving through this Legislature that address this, but where do they spend most of their miles driven? Right in the resort corridor.

Where do most of the Nevada tourists go? Right there in the resort corridor. We want to direct some of the investment specifically there to live on those properties so they can serve their employees and the visitors to our state.

The rest of the bill is directed into different categories. The one I am most excited about that we have worked on for a few years, including a bill I did last session, is electric school buses. School buses are a perfect candidate for electrification, both for the health benefits it provides to the children who ride on them and because they are parked in one place every night. School buses have a very set schedule of when they run. We could use off-peak power to charge those buses at night.

Going back to the key components of the bill before we jump into questions and possibly explaining the individual sections, we doubled the energy efficiency portion that currently exists in law for low-income families in the state of Nevada. We directed that investment toward those same historically underserved communities. Having a more comprehensive and holistic definition of the folks we are trying to serve in Nevada is going to serve us well moving forward. We have tried to do that through the definition of historically underserved communities as it applies to doubling the low-income portion of energy efficiency in the bill.

Another thing we do is expand the use of rooftop solar on multifamily, low-income, and senior living facilities in the state of Nevada. There is a current business model for large multifamily homes—my grandma lives in one in North Las Vegas—where all utilities are included with the rent. There is one owner and one meter. They buy electricity and water and provide everything generally to seniors and low-income Nevadans in a particular type of housing. We want to make sure we can apply solar on those types of buildings so they can provide the environmental benefit to the community and provide an energy benefit to the consumers who live there onsite. This bill addresses that issue.

This bill also addresses resource planning instead of resource planning to keep the lights on tomorrow or resource planning to meet a renewable portfolio standard, which has served us well to get where we are now. We need to look at how we are going to get to zero. If we are trying to get to zero carbon as a community, as a state, as a nation, and even as a planet, we need to have long-term goals on how to get there and we need to set all of our resource decisions—whether it be transmission, power purchases, new power plants, renewable energy—should be based on one thing: getting to zero carbon by the goals we have set for ourselves as a state. In a bill from last session that I worked with many of you on, we did set those standards or goals.

We addressed energy storage. To apply the Renewable Energy Tax Abatement program, this is really more of a clarification than an expansion. This allows for energy being made by renewable energy under the current Renewable Energy Tax Abatement program to include the storage component as well into the overall Renewable Energy Tax Abatement project. We made a slight tweak to it because technology is changing. One thing that is clear is I think hydrogen will play a role in energy storage in the future. It will play a role in using our gas pipeline and natural gas infrastructure system in the state of Nevada. I think

hydrogen is part of that mix and part of that future. By making a slight tweak to this language, I think the hydrogen storage created by clean, renewable energy for the purposes of other uses besides electricity should be included as well, and now is.

Then we opened up the Economic Development Rate Rider Program again. This existed in northern Nevada, very successfully, to attract high electricity users. Large 24/7 users of electricity benefit us all by driving down the cost of electricity for other users on the system. The jobs and economic benefits they create are incredibly important for our tax revenues and for the jobs we need here in the state of Nevada to diversify our economy. It has never been more obvious than it is right now what happens when we do not do that.

The Economic Development Electric Rate Rider Program is now open and available in southern Nevada again for manufacturing and other types of heavy industry to move to southern Nevada. I think we will have some testimony later—time permitting because people traveled a long way—talking about the benefits of that and how this has helped spur development in southern Nevada specifically. It was incredibly successful in northern Nevada to get a lot of industry that now exists here.

We made a few regulatory cleanup provisions. One of them was regarding some holdover language from when Sierra Pacific Power Company and Nevada Power merged to become NV Energy. We made a few tweaks there. Also, as we are moving forward with investments in the future and we are directing the utility to make sizeable investments in Nevada, we want to make sure, when they are recovering the rates on that investment, they are doing it in such a manner that benefits the ratepayers of the state of Nevada the most. I think by directing a private company to bring billions of dollars of capital into the state and deploy it, a rate of return is absolutely something that should be allowable and encouraged. At the same time, we want to make sure there is some oversight and accountability as they are doing that to make sure Nevadans pay the least amount they need to.

All of this is within the framework of infrastructure spending and federal funds that will be coming to the state of Nevada. We are trying to create a framework and methods so we can deploy that federal infrastructure funding as it comes to the state. There is some language that directs that in the bill as well.

I know it is a lot. I tried to get it to the Committee as soon as I possibly could with explanations and indexes [[Exhibit D](#), [Exhibit E](#), and [Exhibit F](#)], in addition to the slides, to help digest 75 pages of what I find incredibly fascinating and riveting reading.

Time permitting, I have a few people who would like to say a few words very briefly.

Chair Monroe-Moreno:

We have members who have to go to the Senate for hearings. Could you go over the amendment [[Exhibit G](#)] before they have to leave?

Senator Brooks:

On the Nevada Electronic Legislative Information System is a proposed conceptual amendment. The amendment addresses some issues that were raised in the Senate hearing, as well as in conversations with Assembly members.

First, the amendment adds some Assembly members as cosponsors on the bill [page 1, [Exhibit G](#)]. Then we make a few small changes. The first is to amend the definition of "energy storage technology." Before, it could be released as "electric power," but now it states it can be released "at a later time," which is more consistent with the broad definition of energy storage. It is taking energy, in this case created by electricity, and storing it to be released at a later time. That envisions it being used for something besides just electricity. That speaks to the future of transportation and gas.

We also make a similar change to section 4 to accomplish the same goals. Change No. 3 makes a small change to the way the Office of Energy within the Office of the Governor is able to use funding within their funding account. It turns out, when the Office of Energy is directed to do things, they actually need to have more resources. This allows them to use the resources they have available to them.

A past member of this body, whom I keep in contact with daily, Mr. Skip Daly, and the electrical workers, brought to my attention that there were some changes I made in the last legislative session as to how we do the renewable energy tax abatement that are not working for all of industry. Change No. 4 [page 2] makes a slight change to how we view wages for the purposes of renewable energy projects for the renewable energy tax abatement.

No. 5 is an amendment to section 31. The Regional Transmission Coordination Task Force—which I forgot to talk about when I was walking through the bill—has representatives who are the key components of a transmission planning process, whether they be the biggest loads taking off of transmission, the biggest generators putting on transmission, or the operators within the state who operate transmission. We thought it was incredibly important to add a representative from the Nevada Native American community, so we added a member appointed by the Nevada Indian Commission of the Department of Tourism and Cultural Affairs to the Task Force. When we are looking at the state of Nevada, we are looking at the entirety of the state from a siting standpoint. I do not know who better than to be involved in a process where we make those decisions than a representative from the Nevada Indian Commission.

That was the last change. The amendments are relatively simple and relatively brief. The bill, however, is not. Would you like me to take questions from members who have to leave before any of the other presenters come up?

Chair Monroe-Moreno:

Will your presenters be brief?

Senator Brooks:

Yes, they will.

Chair Monroe-Moreno:

We will go ahead and hear from the other presenters and then we will have the members who have to leave ask their questions.

Senator Brooks:

Mr. Doug Cannon from NV Energy, who will be making all these investments and operating all the systems we are talking about, will speak next.

Doug Cannon, President and CEO, NV Energy:

Chair Monroe-Moreno, I want to thank you for the opportunity to be here today in front of your Committee. I also want to thank Senator Brooks and Governor Sisolak for their leadership on these critical energy issues. However, this is really about carbon reduction and setting up a sustainable energy system for the future for generations to come. It is also about helping Nevada recover from COVID-19 and putting all Nevadans to work. I also want to acknowledge the broad base of stakeholders who have been engaged in the creation of this bill. I will not name them all because I would forget someone and that would be a mistake, but I want to thank that broad base of stakeholders. It has been a tremendous community effort.

Senate Bill 448 (2nd Reprint) advances the new energy economy in Nevada. First, it supports development of critical transmission infrastructure, essentially the interstate highway for the energy system. The transmission proposed in S.B. 448 (R2) will improve reliability for all Nevadans; it increases development of renewables to reduce carbon emissions; it increases energy capacity to support economic development throughout our state; and it improves the ability to import and export energy, as Nevada is a central participant in the western energy market.

This infrastructure will create nearly 4,000 skilled labor, good-paying jobs here in Nevada. It will have \$690 million of direct economic benefit based on a \$2.5 billion investment. Some may ask about the rate effect. Here is the example I can provide: Since 2013, Nevada has eliminated coal generation in southern Nevada, we have added the One Nevada Transmission Line, and invested more than \$4.3 billion in the electric system. What has happened to rates in that time? They are lower today than they were in 2009. I will say that again. Rates are lower today than they were in 2009 with all that investment going in. It creates new opportunity to import lower cost energy and it leads us to develop lower cost renewables. All that brings benefits to all Nevadans because it keeps money in the pockets of families so they can use it to support their livelihoods.

In addition, S.B. 448 (R2) puts in place an electrical vehicle infrastructure plan. First, there will be a three-year, \$100 million investment. This immediate investment in Nevada puts people to work. It puts them to work now in high-skilled, good-paying jobs. It works to

reduce carbon emissions from our transportation sector; it targets investment in underserved and underrepresented communities to ensure all Nevadans benefit from vehicle electrification and all Nevadans benefit from the new energy economy.

I urge this Committee and its members to support S.B. 448 (R2) to advance the new energy economy in Nevada and to reduce carbon emissions to ensure a sustainable energy future for all generations of Nevadans to come. I am prepared to answer any questions, and I appreciate your time.

David Bobzien, Director, Office of Energy, Office of the Governor:

At this point in session, we very much appreciate your attention. I want to thank Senator Brooks for introducing and shepherding this legislation and incorporating the Office of Energy, Office of the Governor, in the presentation.

We are here in support of the bill. I would like to take a few moments to highlight areas of support for the legislation, the first one being the Regional Transmission Coordination Task Force. In December 2019, Governor Sisolak joined a convening of other governors to discuss the future of the western grid with a focus on price stability and reliability for customers, economic opportunity, and increased adoption of renewable energy, all while facing the pressures and impacts of a changing climate.

This convening of governors was from states as diverse as Idaho, Colorado, Oregon, Arizona, and Wyoming. What has come out of that is what is known as the WIRED initiative [Western Interconnection Regional Electricity Dialogue], which is a dialogue between utilities and state energy advisors to talk about the future of the grid, to talk about how markets can help everyone in the region and further our energy goals.

The Governor's Office of Energy stands ready to support the task force. We know there are a lot of inputs and a lot of complicated issues for this group to dive in on. We are excited about the work and ready to get going.

I want to talk about our support for the expansion to storage for the Renewable Energy Tax Abatement program. There are certainly a lot of things happening on the storage front that are very exciting and contribute to economic opportunities as well as to the stability and reliability of our electricity grid.

We are very excited about transportation electrification. I am sure members are familiar with the work we do at the Governor's Office of Energy in this space. We are very much looking forward to this forced multiplier. I want to particularly call attention to section 49, subsection 3(c), which is the Public Agency Electric Vehicle Charging Program. That section requires the utility to collaborate with the Department of Administration, the State Department of Conservation and Natural Resources, the Department of Transportation, and the Office of Energy in developing the program. I am pleased to report that, in anticipation of passage, the company is already meeting with the administration on this particular section as well as the broader transportation electrification plan. We are very excited about that

collaboration. As the electric vehicle market grows, we absolutely want to ensure that all Nevadans have access to clean transportation by supporting the development of this infrastructure. We think it is very innovative. The focus of 40 percent of the bill's transportation electrification plan is being dedicated to investments made in or that benefit historically underserved communities.

That concludes my remarks. Thank you for the opportunity. Unfortunately, I have to get to another hearing, but I am happy to follow up individually if there are questions to me specifically after this hearing.

Senator Brooks:

I have Director Brown and Bob Potts from the Office of Economic Development (GOED) with the Office of the Governor as well. Mr. Potts is on Zoom and Director Brown is here in the room.

Michael Brown, Executive Director, Office of Economic Development, Office of the Governor:

Twenty years ago, this Legislature was working on energy legislation as the lights were going out across the state. The Enron Corporation catastrophe in California revealed the weaknesses of Nevada's energy system. This Legislature led, in a bipartisan way, by Randolph Townsend and Barbara Buckley, who fashioned legislation that stabilized that market, saved our utilities, and put us on a platform to go forward. Included in that mix was Rose McKinney-James, who put the state on the path to be a leader in renewable energy, so much so that now we are looking at opportunities in this area; so much so that we hired SRI International to look going forward as to how the state comes out of this pandemic and builds a more resilient and stronger economy. Ms. McKinney-James recommended that we become a real leader in this area. This legislation does that.

It is an opportune time to consider this. American manufacturers, encouraged by the Biden Administration to restore manufacturing to the United States and also try to sort out their own logistical issues, are looking across the United States, particularly Nevada because we are a Pacific Time Zone state. The manufacturers are knocking on the door of GOED. Our regional economic development authorities are different than what we have ever seen before. I was with one about three weeks ago and the first thing they wanted to talk about was the accessibility of green energy in the state.

This is an opportunity for Nevada that we need to take advantage of. These companies are also having to meet Wall Street goals for environmental, social, and governance (ESG) commitments. Nevada has an opportunity to give them the opportunity to meet those ESG goals.

Finally, I have to say jobs, jobs, and jobs. Our advisors at Applied Analysis estimate the Greenlink Nevada will create \$690 million in economic activity and support close to 4,000 jobs with a \$400 million payroll. The man who really knows these numbers is the Deputy Director of GOED, Bob Potts. I will let him say a few words to that effect.

Bob Potts, Deputy Director, Office of Economic Development, Office of the Governor:

I will talk a little bit about the economic opportunities of the Greenlink project, and then provide a brief overview of the business development activity we currently have going on here at GOED, and the importance of this project to overall economic development and diversification in the state.

As Director Brown mentioned, if we look at this 12-year construction period for this project, especially when we are talking about the transmission infrastructure, we expect to generate \$690 million in economic activity and support over 3,700 person-year jobs paying over \$406 million in wages and salaries. If you look at the construction phase of this project, that pencils out to a \$1.44 return on every \$1 invested. That is just on the initial \$479 million of Nevada's investment in the total project cost of \$2.1 billion. If you look at the spinout numbers and the indirect induced spinout effects, those are expected to add an additional \$211 million in economic impact. The return on investment of that number, if you look at the full economic impact, is \$1.88.

I will quickly talk about the business pipeline activity and what we are seeing in the state. Before I do, however, whenever we work with companies, whether they are expansions or relocations, there is always a laundry list of what matters most to the companies. If you look at the top ten things that matter to companies when they are thinking about making these kinds of decisions, workforce is always near the top. However, everything else has to do with cost. Energy costs are always in the top five. What is the cost of energy? This is particularly true when it comes to manufacturers.

If I go back and look at our March and December GOED board meetings, over 90 percent of the companies were manufacturers. Nevada has shown a distinct competitive advantage when it comes to manufacturing, in particular, advanced manufacturing. This is something we need to do everything we can to keep moving forward as we try to develop and diversify our economy.

Looking specifically at projects currently in the queue, there are 19 active projects and 14 projects on hold. Of the 19 active projects we are working on right now, 14 of them, or 75 percent, are manufacturers, 5 of which are related to electric vehicles; 16 of the 19, or 86 percent, are in Clark County. This creates a huge opportunity for us in Clark County with these companies, especially when so many of them are manufacturing and dealing with the procyclical issues that we have with the economy, particularly after the downturn caused by the pandemic.

In total, these projects are estimated to bring in over 12,500 jobs at or above the state's average wage, and about \$9.7 billion in capital investment. We know not all of these will happen, but these are the active projects. If I look at the 14 projects we have on hold, 9, or 64 percent, are manufacturers; 10, or 71 percent, are in Clark County. These projects are estimated to bring 8,400 jobs with an average wage of over \$25 per hour, and well over \$1.9 billion in capital investment. I say that because, again, they are in the due diligence process. I know those numbers are going to grow a lot on these on-hold projects.

I want to emphasize that of these 19 active projects we are working with right now, particularly the manufacturers, 2 companies have asked us about Nevada's renewable energy portfolio. What this Greenlink project means to economic development and diversification in the state is critically important at this juncture.

I appreciate your time and will turn it back over to the Chair and the Committee.

Senator Brooks:

I was wondering if I could bring Leslie Mujica up. She is from the Las Vegas Power Professionals, which represents the businesses and workers who would be working on the majority of these projects.

Leslie Mujica, Executive Director, Las Vegas Power Professionals:

The Las Vegas Power Professionals is a partnership between the International Brotherhood of Electrical Workers (IBEW) and the National Electrical Contractors Association (NECA). It is an honor to be here this afternoon. Please forgive me if I seem a little bit nervous. This is my first time testifying here. This is very important, and I am passionate about workforce development, helping our communities, and the future of the great state of Nevada.

On behalf of Las Vegas Power Professionals, the IBEW, and NECA, I would like to testify in full support of S.B. 448 (R2). We would like to thank the bill sponsor and all of the stakeholders who put so much work into this bill. We are excited about this bill because it will bring thousands of high-paying jobs to Nevada and a trained workforce that will benefit from our clean energy economy future.

Both the IBEW and NECA stand ready to meet the workforce demand with highly trained, skilled, and experienced craftsmen and craftswomen. Our apprenticeship training efforts to put Nevadans back to work to build the infrastructure set forth in this bill have been ongoing. If there is a concern about a lack of qualified labor available, let me assure you that this spring our apprenticeship received nearly 2,000 applicants to fill roughly 100 electrical apprenticeship positions.

This bill also prioritizes that this work is done safely by ensuring contractors are certified in the Electric Vehicle Infrastructure Training Program (EVITP). Our contractors and workforce are trained in EVITP. In putting Nevadans back to work, I would note that IBEW Local 357 in southern Nevada values having a diverse workforce. Our workforce comprises diverse candidates. Math is not my strongest subject, but according to the most recent Equal Employment Opportunity Commission report, I came up with 42 percent of our membership being diverse. Our apprenticeship is even higher at a five-year average of 63 percent, which means we are heading in the right direction.

We are also proud to have a chapter of the IBEW Electrical Workers Minority Caucus in southern Nevada. It was organized to help advance our diversity and inclusion efforts in addition to providing a path within IBEW to seek leadership roles, which is highly encouraged. As we put Nevadans back to work, we are focusing on Nevadans. We urge your support of this bill, and thank you so much for your time.

Senator Brooks:

I would like to ask Mr. Johnston to join me at the table again to answer the hard questions.

Chair Monroe-Moreno:

We will start our questions with Assemblywoman Summers-Armstrong and then Assemblywoman Peters because I know they both have to leave.

Assemblywoman Summers-Armstrong:

I appreciate all this information. I actually stayed up and read this bill. It is a good bedtime story, but I actually stayed awake for most of it. I think this is a good bill, but I need some details. That is what is missing from my perspective.

In section 12 you have a clear definition of "historically underserved community," but in section 1, subsection 8, you are also talking about including them as users of the transportation network. I think we should also be looking at not only installing the energy outlets in the community, but also as owners of these vehicles. You mentioned earlier that inner-city communities often have high rates of asthma and other things. I know this; I have lived it; I live it every day.

In a recent article by Recurrent [recurrentauto.com], the cost of electric vehicles is going up, according to their May 2021 report. In the law, the definition of an electric vehicle is one that has either one or two batteries. It does not include hybrids. That means anyone who is trying to qualify as an electric vehicle would have to have a fully electric vehicle, and those are extremely expensive.

We just passed an Old Timers bill, which is helping us to cut down on emissions. We need an opportunity for folks in these communities to be able to own these vehicles, not just to have charging stations in the neighborhood. I would like you to speak about whether you would consider adding an option in the bill for there to be support—something that Assemblyman Watts is working on—to help folks afford vehicles as they are replacing Old Timers. Assemblyman Watts can speak deeply to that. Also, bring the banking community into this bill to offer low-interest loans. We are talking about underserved communities. Part of Ward 5 in Assembly District No. 6 has had a 15 percent unemployment rate for many years, so folks do not have a lot of money. I think it is extremely important that we not just speak about participation from underserved communities, but we open a pathway for that to be realized. It is not enough just to have a charging station in my neighborhood when I do not have a car. You are driving in my neighborhood to charge your car, but I do not have a car to charge. That is one of the things that is concerning to me.

The second thing is there is a lot of discussion about jobs, but there is also no specific plan for the folks who live in these underserved communities to participate in the jobs. The IBEW has a program, but I am concerned if we are going to have all this activity in these communities, the people who live in those communities should also be recruited and trained to participate. If there is a 12-year program, these are jobs that could get people out of poverty and get people on the road to self-sufficiency and to the middle class. If you are going to bring the infrastructure into my community, I would like to see a program that fully engages recruitment, training, and participation in the jobs.

Another thing that is of concern to me is community engagement meetings and only requiring one. I thought that was curious. We are talking about bringing a new technology and new ideas into a community that has been historically underserved, people do not know about all of this new-fangled stuff—and that is what the folks would say, "new-fangled stuff." We need to have more than one community engagement meeting. Section 14, subsection 3, states, "During the 9 months immediately before an electric utility files its first plan . . . at least one stakeholder engagement meeting" I think more than one meeting would be advisable.

Another thing that is a concern to me is about what this means in these communities about power usage and the ability for the transmission lines to be upgraded so the system can hold and handle this increase in usage. I would like an answer to this question. In many of our underserved communities, the powerlines are above ground. If you are going to increase pull and usage, how is this going to affect the existing systems? Section 19 talks about "high-voltage transmission infrastructure," 345 kilovolts. If you have to increase the ability of current infrastructure to move electricity and you are increasing it to 345 kilovolts, and we have lines above ground, how does that affect the environment and the people who physically live in that area? I know sometimes there are issues with electricity and there has been discussion about that. Is that the right thing to do—increase the voltage in neighborhoods to that level? Can we increase our ability without endangering health for these communities? Again, we are talking about underserved communities to participate. You are talking about building vast infrastructure right in these neighborhoods. If you could speak to that, I would appreciate it.

My last concern is efficiency. I know in the past we have had weatherization programs, and I respect that those programs have been in place. However, those programs are a Band-Aid on a bullet wound. I believe just weatherizing windows and doors does not get to the core of the problem in underserved communities, which is old housing stock that was not built to be efficient. I know the U.S. Department of Energy has a program of whole-house weatherization which has to do more with not just windows and doors but also infrastructure, R-30 insulation in the ceilings, and other things.

What I am trying to say is I like the idea, but for a community like mine that has had promises made for many, many years, legislation for us has to be more than just a great idea. There have to be triggers and things in legislation that direct people to make real the

promises. Without those things, we often do not get anything. I would like there to be more details and direction in programming so those things really are actualized and not just great ideas.

I am sorry for the diatribe. I do have to go shortly. I really want to hear this. I want you to know I am excited, but it is the meat that is really important here.

Senator Brooks:

First of all, the definition of electric vehicle matches the definition of electric vehicle in statute and federal regulations for the U.S. Department of Transportation and how electric vehicles are defined and dealt with in all federal regulations as well as state law. This bill does not address incentives for electric vehicles. This bill does not address giving money to people to buy cars. That was not the purpose of the bill, and it does not address that. Although I support that, I just do not know the best methodology to pay for that.

To your earlier statement about the cost of electric vehicles going up, that is counter to every other data point I have collected in my research, and my personal experience as an electric vehicle owner. The cost of electric vehicles is continuously going down, and they are estimated to go down at an even faster rate than the cost of gasoline engines. However, I would love to see what data you are looking at in the article you were reading to expand my knowledge on this subject matter.

As far as expanding to hybrids, this is about charging and electrical systems. If it is a plug-in hybrid, which I used to have—a Ford Fusion plug-in hybrid—and I could plug it into the wall. The systems we are talking about on the electrical infrastructure charging would benefit that type of vehicle as well.

Getting to the job recruitment in more diverse communities, Ms. Mujica provided some statistics. I have worked in the workforce development arena, the apprenticeship program and IBEW as an example, and union labor programs my entire adult life. I started at the renewable energy training facility at the IBEW years ago. One of the most effective ways to guarantee a living wage and to guarantee equity among all the people in the workplace, in my opinion, is organized labor. Tying development to organized labor has always been, in my career, one of the best ways to create good, high-paying careers and help Nevadans get to and stay in the middle class.

Ms. Mujica works with the IBEW business owners as well as with the IBEW union, she mentioned the most recent class of apprentices that we take in, train up, and then put out into the workforce is 62 percent diverse. The current workforce in the local Nevada unions is over 40 percent. That is much higher than the average workforce and much higher than the average construction workforce. That is done by being very thoughtful and intentional on how we recruit and who we recruit in trying to make sure they get opportunities. I will say, background, gender, or race does not matter; they all make the same amount of money in

these collective bargaining agreements on these projects we are building out and that we are proposing to build out in this bill. I think that is the number one way to create and achieve some sort of equity in the workplace. That is why I am a huge supporter of organized labor when it comes to construction.

I was on the board of directors of Nevada Partners for years and worked with the BuildNV program where we were connecting folks from the traditionally and historically underserved communities to the building trades to create long-term pathways to middle class and to a safe and stable working environment. That has been a mission in my life, and hopefully this bill tries to achieve that.

Regarding the engagement meetings you brought up, it states a minimum of one per quarter. What we have seen in the past is that it is quite a bit more than that. Chair Monroe-Moreno and I have been part of some of the engagement meetings on other pieces of legislation that require the Public Utilities Commission of Nevada (PUCN) involvement. There are actually people on the phones who are in support of this bill who participate in those, as well as Mr. Johnston and other organizations. I think it will be far more robust than just one meeting per quarter. We have to put a minimum in the bill to make sure it takes place.

The above-ground powerlines and the high-voltage transmission are two separate issues. That is my fault for putting too much in one bill. However, the minimum of 345 kilovolt transmission lines in above-ground lines are exactly the same lines you see running all over the state now. We are just proposing to build a high-voltage bulk network around the state connecting those three parts of the state that are in your slides [page 6, [Exhibit C](#)]. That is not something that is in neighborhoods or in the core of our communities. These are long-distance, high-voltage overhead transmission lines we are proposing, like the ones we currently have, but we want to add to the system.

Regarding energy efficiency, I agree with you wholeheartedly that we need to have more energy efficiency. The folks who need it the most are the folks who have the least opportunities to do it. If people do not own their own home, there is not a great incentive or many opportunities for them to do lot of energy efficiency projects, like the windows, insulation, and new appliances—the things you addressed. However, there are programs, and the programs are largely through the utility, whether it be NV Energy or Southwest Gas Corporation. They are programs mandated by the state, but they offer things like rebates for energy efficient appliances. In some cases, they will take the old appliances away and put the new appliances in their place. Those are targeted in the historically underserved communities

We have programs in place now. What we are trying to do is double that. Whatever we have working right now, double that. Double the amount of money we are going to spend and target that into historically underserved communities. There is a long way we could go. I am here for the long haul. This is my third session. I make a little bit of progress every session, and I plan on being here for a few more. Doubling the amount we are putting into those programs I think is significant. However, you are right, it is still not enough. I will be back

next session to work on doubling it yet again. There are some folks behind me who do not want to hear that, but maybe you, Assemblywoman Summers-Armstrong, will work with me on it next session. I am incrementally trying to get it done. You are not wrong, and I agree with you wholeheartedly. We need more energy efficiency and we need it for the Nevadans who need it the most.

Assemblywoman Summers-Armstrong:

You did answer the question about the high-voltage lines, but could someone on your team talk about the capacity of the existing infrastructure and how it will handle these new things in the communities?

Senator Brooks:

Absolutely. I happen to be an electrician by training and an electrical contractor in my past, so I can actually speak with intelligence on this matter. I have also built transmission and distribution systems. If you look at the bill, it says "electrical vehicle charging infrastructure." That means a couple of different things. I think we all think of electric vehicle charging as something people drive up to and plug their car in. That is actually the easiest and cheapest part of the entire thing. Getting the electricity to that charger and having the infrastructure where it may not exist is really what the investment needs to be about.

I live in a 55-year-old house with rickety, overhead, 55-year-old lines. To put in an electric vehicle charging station at my own home, I had to upgrade the system. I had to put in a new main service and a new overhead drop and whatever that cost me. That is just because I live in an old neighborhood. This is the type of investment we are talking about. We are talking about making investments in the electrical infrastructure that serves the charging infrastructure in places where that investment needs to be made. That could be two things: it could be where the charging is going to take place or where the infrastructure needs to be upgraded to even allow the charging to take place. We are trying to address that, not so much in the first part of the bill with the \$100 million investment, but in the second part where we will have stakeholder engagement, conversations, and a long-term holistic planning process that involves the entire community. That is where I think most of that will be addressed.

This is a statement that I want to read that came from one of the charging industry folks. "This would also create opportunities for utilities to work with Nevada businesses to become part of this transition to electric vehicles." In this bill, we even talk about that. We could provide incentives that could be used to offset the cost of the charging stations through rebates. That could take place for a resident through grants or through utility upgrades, both on the utility system or assisting customers with upgrades on their property. These are the types of investments we envision some of this money being used for, not just buying a charging station, because that is the easiest part. It is making sure that the availability of the charging station exists for all Nevadans, or most Nevadans.

This could be used by leveraging both utility funding and private capital from third parties. This would have a bigger impact on the transition to electric vehicles than just the cost of the utility programs. We are talking about using the utility investment to leverage private capital to be able to provide other business models for providing charging to Nevadans. This will send an important signal to the market and create new opportunities for Nevada businesses, such as traditional fuelers and retails and hospitality providers. Can you imagine gas stations where you would fill up with gas, and you could also charge?

Investing in this will have private capital come into Nevada and invest in electric vehicle electrification, creating a more competitive market for electric vehicle charging services and providing that equipment and services. I promised a charging company business model that I would make sure I put on the record that there are other opportunities out there for Nevadans than just what is in this bill. It would leverage the private investment by making this investment today.

I do not disagree with a single thing you said. I wish we could do more. I am coming back, and I will keep trying.

Assemblywoman Peters:

Thank you for taking on this challenge. I know you have been building up to this for a couple of sessions now. This is an amazing feat you have pulled together here in less than 120 days. I love the direction of the bill. I love the investment and the infrastructure design, the inclusion of labor and communities. It has a really comprehensive and holistic look at what needs to happen in the state.

I have a few questions. I am going to start with easy ones first. You say, "zero carbon." Are you talking about zero-zero, or are you talking about net-zero?

Senator Brooks:

When we are talking about the integrated resource planning processes, I think the goal for all of us in this world is zero-zero. However, we get to diminishing returns when we get closer and closer to zero-zero. The goal is zero-zero. Technology does not currently allow us to do that affordably. I have been in the renewable energy business for 20 years. It looks so different than it did 20 years ago. I cannot even begin to imagine what it is going to look like 20 years from now. We cannot get there unless we set a goal and start walking in that direction. Zero-zero is the goal, but zero-zero is not currently something that is reasonable or feasible.

Assemblywoman Peters:

I like the goal because then it gets people thinking about how we do get there, and that innovation has a place to land. Can you talk about what it takes to join the Regional Transmission Organizations (RTOs), how we will reach that 2030 timeline, and what the in-between times will look like?

Senator Brooks:

Thank you for that question because we did not really talk about that much in the Senate bill hearing, and we have not talked about it here yet. It really is one of the most important parts of the bill to me. A regional market is so incredibly important for so many reasons. It has been identified in our interim study; it was one of the things that Chair Monroe-Moreno in the interim Legislative Committee on Energy brought forward as a statement and a priority. However, it requires interstate and interutility cooperation, and that is difficult.

Transmission is generally an interstate proposition. Right now, we are contemplating making an intrastate investment to facilitate an interstate expansion of transmission. It is kind of like, "Build it and they will come." It does not do any good unless we are talking in a regional manner. The only regional market in the West right now is the California Independent System Operator (ISO). The only non-California utility in all of the California ISO is in Nevada, which is the Valley Electric Association, Inc. They are a California ISO utility, but we need more options. I have gone to the California ISO and the California Legislature on multiple occasions and participate in conversations trying to move that forward.

What we are doing now is having a more holistic conversation in the West. Chair Monroe-Moreno and I went to Denver, Colorado, and talked to a really good group of western legislators, bipartisan, who really want to put something together for all the benefits we see this could bring to our economies. Senator Chris Hansen, from Colorado, who Chair Monroe-Moreno and I met with, has a companion bill to S.B. 448 (R2) that has much of the same language. It originated in the Colorado Senate and the bill is currently moving through the Colorado House of Representatives. We are kind of on parallel paths and texting each other late at night when we get off the floor and giving each other updates on where our bills are. We are both trying to force a conversation around regionalization, and we are both using the same phraseology, the same terminology, and the same timelines to try to bring it on one end in Colorado and on the other end in Nevada. We are trying to move this conversation forward by putting together a task force that has a diverse group of users, planners, and folks with ideas on how we can plan our transmission system in the state. It is really going to happen organically. We saw that with the energy imbalance market that NV Energy has entered into, which is putting the toe in the water of regionalization. It saved the ratepayers millions and millions of dollars by just entering into a short-term look at what regionalization could look like. However, we want to have a big conversation with all the states and California. Right now, California has the only regionalized, organized type of market in the West.

Assemblywoman Peters:

Is there a formal process for engaging in that, or do we establish our distribution system plan to connect regionally and from there we have established that regional relationship and become a member of the RTO?

Senator Brooks:

Mr. Johnston and I talk about this all the time. It is kind of all of the above. We start by building transmission lines. None of this means anything if we do not actually have the wires. You could say you are in a regional market, but if you do not have the wires in place, it does not really mean anything. We build transmission and then enter into agreements with neighboring states and then do things like the energy imbalance market or the day-ahead markets that are available and are happening on a utility-to-utility basis and utility-to-operator basis. All the while, we could be creating our own organization.

We say "join" or "create" in this bill because it could be something like Nevada creating a regional organization and then other states joining it, or we get together, talk to other states, and we collectively create an organization.

Director Bobzien had to leave, but he and the Western Governors' Association have bipartisan conversations across the western states. The Western Governors' Association and the heads of all of the offices of energy are having these conversations at the same time folks like me, Senator Chris Hansen, and Assemblyman Holden in California, are having the same conversations about how we work together on a legislative front to accommodate what could happen at the Executive Branch level and what is just naturally going to happen with businesses. We have to be able to facilitate that in order to get the benefits as a state. It is kind of all of the above. Mr. Johnston and I have fascinating conversations about this for hours at a time that I am sure would bore you all to death. Some of the folks sitting behind me and on Zoom do as well because we think this is not only the key to decarbonization, but also the key to our national security and our grid resiliency in the West.

Assemblywoman Peters:

My last question has to do with the number of plans that are mentioned in the bill designating that these plans have to be submitted. I assume, but I want to get on the record, that within those plans there will be a timeline with metrics, such as goals and objectives, that will be met to implement those plans. I am curious about your vision for how those will be implemented after the requirement of the plan is in place.

Senator Brooks:

There has been quite a bit of conversation with the PUCN on that piece. We tell a utility to go do something and we tell the PUCN to make sure they do it right, submit a plan, and make sure the ratepayer is protected through the whole process. Through this—as you are kind of in this industry as well—it is a very regimented process that has a lot of procedure and process built into it. That stuff takes time and resources. It does not happen overnight if it is to be done right. There was a lot of conversation and a lot of detail in the bill about those timelines—when the utility has to submit a plan, what time frame the PUCN has to approve or modify the plan, and then when the plan has to be implemented.

This is an aggressive timeline by utility planning standards. It is not an aggressive timeline for what I want to see happen tomorrow or what legislatures want to see happen, but it is definitely an aggressive timeline based upon utility planning standards. That took a little bit of help and cooperation by working with the utility and the PUCN through the drafting of this bill. It is going to take some resources. This bill has moved through the Senate Committee on Finance and resources were allocated. However, it really takes human resources and human capital at the PUCN and at the Governor's Office of Energy to really be able to move something like this forward. It will pay dividends for our state, but it does need human resources to meet those deadlines. There are environmental planning processes, permitting processes, and regulatory approval processes. All of this takes a lot of time.

Assemblyman Roberts:

I appreciate the bill and the notebook you provided. The bill provides a lot of things we need to move our energy economy forward, and I appreciate all the thought that went into it. I have one question about your amendment [[Exhibit G](#)] in section 8 regarding wages, which now includes contributions to pension plans made to a third-party administrator. I was looking at the original bill draft in section 8, subsection 1(d) (3) and (4). It talks about 110 percent of the average wage and 175 percent of the average wage. Is that typical language that is found in the *Nevada Revised Statutes*? Is it prevailing wage language? I am just curious if this is normal in the amendment because I have not seen it before.

Senator Brooks:

This is the type of language that would exist in abatement language, not necessarily prevailing wage language. This is not a prevailing wage; this is based on abatement. We see this a lot, although this is, in my opinion, the most effective and best abatement statute that we have. It says if you lease land from the federal government, you then have to pay property tax on that land because you built a power plant or a transmission line on it and have built all this equipment on the land with a billion dollars worth of solar panels. If you come to our state and invest in this public land and lease it from the federal government, we will allow you to get a tax abatement. Part of the taxes on what otherwise would be untaxable property, we are going to abate part of that for a period of time. In return for that abatement, you must pay X, Y, and Z.

The language has gone back and forth over the years. I tried to fix it last session and I broke it. I did not make it better, I made it worse. The industry came back and told me the thing I tried to fix, I made worse. This is an attempt to fix that issue. It was brought to my attention by the companies that do these projects. What we are doing here is adjusting what is included in that wage. It used to be everything was under the cap and then I moved everything over the cap, and now we are putting some of it back under the cap. This is me trying to right a wrong I did last session, which was trying to right a wrong that I think I did the session before that.

Assemblyman Roberts:

I appreciate the answer. It is a great bill.

Assemblyman Leavitt:

The unfortunate issue about giving us a packet with this much detail is it is easier for us to pick it apart. My question is more toward the regulatory section, section 35, which states, "there is no presumption that any recorded expenses, investments or other costs included in the application were prudently incurred The public utility has the burden of proving that an expense, investment or cost was reasonably and prudently incurred."

To me, that seems like guilty until proven innocent. That is legal jargon being used and it is not really following legal precedent in the way it is worded. When the utility is submitting an application or trying to prove their reasonableness and prudence, what kind of support do they have to provide? Do they have to provide witness support statements? What is required of them to prove their innocence?

Senator Brooks:

This is actually language that currently exists, and it is actually how certain rate cases are handled for the electric utility. What we are doing here is saying that through a piece of legislation, we are making the utility go out and make an investment. If the utility is going to make that investment and recover those costs—and we define how they recover their costs in the bill—they must do it in such a manner that they have to prove the investment made was prudent. We can say go build a line from A to B and it costs a billion dollars—and it does—but we want to make sure they are doing that at the lowest cost they possibly can based on the parameters we gave them. Yes, the responsibility lies on them to prove the prudence of their investment.

That is currently how it is in most of the ratemaking for the electric utility. We just want to make sure it is incredibly clear moving forward. If we are saying as a policy statement for the utility to invest in these things and we all collectively—transmission users, utilities, big data centers, mines, average ratepayers like everyone in this room—pay it back over decades, I want to make sure that is done in the absolute lowest-cost manner possible to protect the ratepayers. That is what this language does.

That terminology exists in ratemaking and exists already. We just want to make sure that, moving forward, the investment that the electric utility makes on transmission is defined and the responsibility to prove the prudence of that investment does lie on them. When you ask about what testimony, it is in a rate case and it is in a proceeding. There are several smart energy attorneys sitting behind me and one sitting next to me who could talk to you for hours about it. That is what the entire PUCN does. There are interveners, large ratepayers, and utilities. We just want to make sure if we are ordering the utility to spend literally billions of dollars over decades, we are making sure they are doing it in the most cost-effective manner possible. This language helps to achieve that, in my opinion.

Assemblyman Leavitt:

When we are talking about this provision, and if it is already being done, what would be the reason behind even putting a provision of that nature in the bill. If it is already being done and is general practice and is already being accomplished, what would be the reason behind even including it at all?

Senator Brooks:

We want to guarantee that there is no ambiguity moving forward with the electric utility on how they are going to recover these costs. The responsibility is going to be on them to prove the prudence of the investments they make to meet these goals. It is basically a compact between the state, the utility, and the regulator. We tell them to do a thing, they do a thing; they invest billions of dollars of their own capital—they bring in private capital from out of state—and make that investment in our state. For that, we allow a recovery of that cost with a profit. However, in return, we need to make sure they made the absolute best investment possible on behalf of the ratepayer and the taxpayer. We feel this language gives us some comfort that when they go through the regulatory processes, this is the guiding principle.

Assemblyman Leavitt:

Have there been issues in the past where the need is there?

Senator Brooks:

Yes. There is an entire fleet of attorneys who make a good living at working in front of the PUCN representing the largest ratepayers and representing the largest utilities. It is a thing. I have a lot of good friends whom I respect on both sides of that argument. If we are going to make a private company, through a piece of policy, make a multi-billion-dollar investment, two things should happen. They should be able to get a legitimate and reasonable return on that investment, and we should make sure they make the most prudent investment possible on behalf of the state of Nevada. This language tries to achieve that. It does not undermine any current court cases by any other utility, if that is the question you wanted to ask.

Assemblyman Ellison:

You talked about public land abatement. The Payments in Lieu of Taxes (PILT) program is available for those areas and the PILT helps cover the loss and tax bases. I hope that is something you take into consideration because that is going to be a loss to the county for infrastructure. That is a big deal.

Senator Brooks:

The abated part is the state's portion of the property tax. The local property tax all goes to the local county where these projects take place. It is a net benefit to the county and to the state. The majority of the benefit goes directly to the county because it is turned into local property tax.

Assemblyman Ellison:

How long do you think it will take to get this up and moving to where people are actually on the ground and doing projects?

Senator Brooks:

There is a two-part answer to that question. It starts with submitting a plan and upon passage and approval, there would be a certain time frame, which is defined in the bill, to submit a plan, which I think is 90 days. They have an expedited review period at the PUCN to have plans approved, and then the utility would start spending money immediately on the electric charging infrastructure. NV Energy is already spending tens if not hundreds of millions of dollars on transmission, which has already been approved by the PUCN, on some of the stuff we are ordering in this legislation, such as permitting issues, environmental siting, acquisition, and things like that. The money is already being spent. We also think the massive transmission build-out will take place in the next six years. It just takes a long time to do these things.

The most important component of this bill is that transmission build-out. That transmission build-out would facilitate a minimum of \$6 billion of investment in our state on renewable energy projects in these predesignated zones [page 5, [Exhibit C](#)]. The second something like this is announced, the land acquisition starts taking place, the interconnection agreement starts, substations are planned to be built. The second this gets approval, the other money—money that is not even part of the economic benefit of this line—billions and billions of dollars and the tens of thousands of jobs come with that, starts the day this gets approved. They are already chomping at the bit and looking at ways to get into Nevada so they can be part of this new energy economy.

I would say, immediately. Some of it is already being spent today without this bill even being passed yet because some of these processes are already ongoing.

Assemblyman Ellison:

I appreciate that. That is what it is going to take—getting boots on the ground and getting things moving. I think we have one of the best apprenticeship programs in the country here in Nevada. The problem is, it takes a while to get that many people and get them trained. I own several businesses, and the biggest problem I see is workforce. I know there are apprenticeship programs out there, but unless the government steps up and tells people they have to get back to work, I do not know how they are going to do this. I know Mr. Brown could probably answer some of these questions. We have to do something as a state to get these people away from the TV and back in the workforce. I know that sounds cruel, but there are no people to hire. You cannot find laborers or qualified people. We are having a big problem throughout the entire state, not only in Las Vegas, but also in the rurals. It is hard to find a workforce.

I am hoping the Office of the Governor has a plan to move forward to try to get these people back to work. That is also what is going to stimulate the economy. These are great jobs to get people to work, but we have to get them. I know the unions are boosting up the apprenticeship programs and other things, but we still have to have people now who are going to be doing this.

NV Energy should already have the right, based on their system, to build their grid. All they have to do is get approval from the PUCN in some of these areas. Right now, they could be moving. They have more power than most of these people as far as moving some of the transmission lines out there now. Is that not true?

Senator Brooks:

That is correct. If you look at the bright red line on this slide [page 5, [Exhibit C](#)], that is already existing. If you look at the western piece, NV Energy already has approval to do that. This bill allows for some of the expansions, like tying from the west across central Nevada. This creates the framework for the New Energy Industry Task Force, but it allows for some substation build-out along the way, connecting to loads, and things like that. You are absolutely right. They are already working on the Greenlink West piece of this and it is something that has already been approved by the PUCN. This augments that, making it into a more comprehensive plan to look at the whole region of Nevada and how we tie it all together and open all these opportunities instead of a little bit here and a little bit there based upon the way the planning processes currently work.

To talk about the wages and creating this need, you heard Ms. Mujica talk about opening an opportunity for a class of 100 electrical workers and having over 2,000 applicants. We have the certainty that there are going to be thousands of jobs out there, then we can just ramp up the apprenticeship programs across the entire state, open these classes, and start recruiting folks. There are programs I used to work on at Nevada Partners, Inc., for instance, where we went into historically underserved communities and tried to connect opportunities from those folks to the apprenticeship program. What hurdles are in the way? Is it one year of algebra you need? Is it child care you need? Is it a GED you need? How do we connect that person with that career opportunity through apprenticeship? We are working with the College of Southern Nevada and organizations like Nevada Partners, workforce organizations in the state, and the Department of Employment, Training and Rehabilitation, to try to create all of those pathways to get folks there.

We say if you are going to get these tax abatements—and these tax abatements make it worthwhile to come to our state and invest billions of dollars in capital—you must pay 175 percent of the average statewide hourly wage. That is a good wage and that will motivate people to get into those jobs, work themselves through those apprenticeship programs, and get into those trades. This is a ten-year plan, but it starts tomorrow.

Assemblyman Ellison:

The last question I have is regarding the rural transportation. In Clark County, there is a great transportation system. You should be able to work through a lot of these problems pretty easily. Is that correct?

Senator Brooks:

We are blessed with being such a new town and having new infrastructure in southern Nevada. Believe it or not, Nevada is one of the most urban states in the entire United States. We are sitting here in historic Carson City, having driven through 500 miles of beautiful mountains and desert to get here, but the fact of the matter is about 85 percent of our state lives in two little valleys. We are very well-suited for the electrification of transportation.

Hopefully, in this infrastructure world that we live in over the next few years, we address public transportation in those two valleys as well. What this bill wants is the electrification of our existing transportation networks, including personal vehicles. Yes, we are very fortunate to have good roads in this state, and definitely in southern Nevada because it is such a new community.

Assemblyman Miller:

I am excited about Nevada being a regional energy hub. I have a question for a point of clarity regarding section 36, subsection 10. This is if someone has a multiunit property in an apartment community or something similar, the owners or operators would not operate as a public utility and would not be able to charge for the power that is generated through those systems.

Senator Brooks:

That is correct.

Assemblyman Miller:

Does that also apply to individually owned property? If it is a single-family residence that has rooftop solar, would they not be able to charge for generated power?

Senator Brooks:

That is correct. Basically, we have net metering laws here in the state that look at the individual power users behind the meter. What this bill does is—and I will use my grandma as an example—if there is one meter, they pay one power bill, but they have 100 units. All things are included in my grandma's rent. It is subsidized senior housing in North Las Vegas. She pays rent to her landlord and with that comes electricity, water, heat, and the rent for her house. We are saying that is the same as your putting solar on your roof. One meter, one customer, one bill from NV Energy. It does not matter how many folks live there. That is what we are trying to define in that part of the legislation.

Assemblyman Miller:

It says they are individually metered. In the scenario you described, there is one bill for the entire property. However, if there are multiple units and each unit has its own meter, then it does not fit into this. Is that correct?

Senator Brooks:

That is correct. This bill does not address that. In that scenario, each individual person has their own meter and their own account with the electric utility. They do not own the roof. If you think about it logistically and how you would accomplish that, it does not really lend itself to this type of cogeneration.

Assemblyman Miller:

I wanted some clarity on that because I am somewhat familiar with people having rooftop and the landlord creating a different bill for that service.

Senator Brooks:

That is currently something that is not allowed in the state. It is not necessarily something I support being allowed in the state because I think there is a lot of opportunity for mischief in that business model.

Assemblyman Miller:

Thank you. I just wanted that clarity between the units and how it is defined.

Assemblywoman Brown-May:

I very much like this bill, and I appreciate your amendment. First, I would like to go back to my colleague's question relative to section 35. I had an opportunity to learn a little bit about public utilities in general serving on this Committee throughout the course of this session, and I really enjoyed that opportunity. It is my understanding from other presentations we have received that public utilities, when they are going to develop infrastructure such as a big project like this, the utility itself would present the plan to the PUCN. Then it would go out for a public hearing for feedback and commentary before it is approved. We would then believe at that point that all of those expenses in that plan have been vetted and approved. Is that true?

Senator Brooks:

Not necessarily, but Mr. Johnston would be able to answer that far better than I could.

Bob Johnston, Policy Advisor, Nevada State Democratic Caucus:

It is actually a two-step process in Nevada and dates back to the early 1980s when Nevada adopted what is called integrated resource planning. What that did was bring the PUCN into big management decisions by the utility. Before that, the utility would make a decision, accomplish the act, then it would go to the PUCN for the first time for detailed review after the fact. By then, the deed was done and they would get after-the-fact disallowance expenses.

With resource planning, which has been around in Nevada for nearly 40 years now, the PUCN is brought in on the front end. The utility goes to the PUCN with its triennial integrated resource plan and requests approval under the three-year action plan that takes certain acts on the supply side or demand side. Once the plan is approved, those actions are deemed prudent. That is step one.

In step two, the utility has to build the transmission line and implement the energy efficiency programs. Cost recovery happens, for most costs, in a general rate case. The utility builds a substation, then they want to roll the cost into rates. They have to prove to the PUCN that the action, which has already been deemed prudent, was implemented in a prudent and reasonable fashion. That is how the process works.

Assemblywoman Brown-May:

I believe I heard Mr. Potts say there is a \$1.44 return on every \$1 invested. I just want to make sure I heard that clearly: For every \$1, we get \$1.44 in return.

Senator Brooks:

That is correct, Mr. Potts did say that. He was referring specifically to the transmission line investment. There are leveraging investments that we are not even talking about. That does not include the industries it could draw or the renewable energy generators that might hook up to it.

Assemblywoman Brown-May:

Recognizing we are not a money committee but a policy committee, I thought that was really important to clarify.

Senator Brooks:

The primary motivation of the bill is to bring more revenue into the state.

Assemblyman Wheeler:

My question is about the abatements. Are the abatements on public lands going to affect our PILT payments? As we know, that is counting up the amount of land you have versus the amount of land you use.

Senator Brooks:

Assemblyman Ellison asked the same question regarding that. I am not exactly sure how that affects the PILT. What this does do is it takes the otherwise federal lands, and the private developer enters into a lease with the federal government, usually the Bureau of Land Management, Department of the Interior. Now, based on the taxable value of that land, all the property tax goes straight to the county in which the project takes place. You are converting, although you are not looking at the loss calculation. You are converting otherwise untaxable land into actual taxes. While it is abated, it is the state's share that is abated.

Assemblyman Watts:

Thank you for the thorough presentation of a thorough bill. First, I would like to put a quick comment on the record. I support and appreciate a lot of the work that has been done in terms of incorporating equity into this bill and into policies in general. It was not very long ago, before I arrived in this body, when we were making sure there was 5 percent of programs going to low-income communities. I agree with you, and I look forward to working with you to continue to increase that. I would like to see a larger figure as well, but

I appreciate we are continuing to expand our commitment to assist the communities that need it the most and can really benefit the most in economics, health, comfort, and a lot of other ways by prioritizing some of these investments, whether it is in energy efficiency or transportation electrification. Having worked on some of this stuff before, we have seen when we do not build those things into policies, sometimes it does not get distributed in the way needed to address some of those issues. I just wanted to make sure I put my appreciation on the record for your work in making sure we are building that into our policies moving forward.

One question I do want to ask is around the transportation electrification. There are two pieces that I see in the bill. There is a short-term defined investment to scale up some of this infrastructure. Then there is an ongoing planning process to continue to build out and maintain that. Could you talk a little bit about how those pieces interact and work together toward achieving our transportation electrification plans, specifically the transition from the short-term plan to the longer-term planning process?

Senator Brooks:

I will start with the conversations around equity and how we look at Nevadans and who benefits from what. It is not a new conversation, but it has really matured in the last couple of years. In the last three sessions, the most significant improvement in that process for me has been in the work that was done over the summer. I was having conversations with many people on this Committee about this exact bill over a year ago. You have to pick the right time. In that process, the most significant improvement and progress that was made was coming up with definitions for historically underserved communities but with data to back it up. It is hard to say, I want to help everyone or I want to do X, Y, and Z.

We put words on paper in this building and those words turn into laws that turn into actual actions. Using words that will actually turn into actions is sometimes the hardest thing to do. I am so grateful for the team I worked with, yourself included, Chispa Nevada, the whole National Resources Defense Council team, and Western Resource Advocates, that helped me get to a place where we now have words on paper that will hopefully achieve those goals.

That being said, it is definitely two parts, but they do complement each other. The first is the targeted investments in certain sectors. We know it is not going to be enough, and we know it is not going to satisfy the needs of any one of those sectors. That first investment will be a learning experience for us as we go into that second planning process. That coupled with community engagement of what the need is and what we put out there, we will see what gets utilized. None of this is good for anyone if it does not get used. Just putting up a charging station somewhere because some guy like me thought he was going to do the right thing for the right people does not do anyone a bit of good. The only way these things really benefit all of us, including folks who do not have electric vehicles, all ratepayers, is by getting the absolute highest level of usage. That should be our primary consideration.

How do we do that and how do we help communities that need the help the most? How do we create opportunities for communities that need the opportunities the most? We are going to learn that through the first piece, I think. That will inform the long-term planning process, which is the second piece.

Assemblyman Watts:

To clarify, we are going to make this investment and that will give us enough information from the projects that we will be seeding. We can then step back and evaluate to figure out which things are working well, and which things are not. Moving forward, we continue to make investments using that knowledge to make sure they are getting high utilization, which also helps ensure the ratepayers are being protected because high utilization means we are actually bringing in a return on the use of that infrastructure to make sure it does not put additional cost on the ratepayers. Is that how you see it going?

Senator Brooks:

That is exactly how I see it going. We know what we think we want to achieve, but we do not always know exactly how to do that. There are some really smart people, both at the utility and at the PUCN, who look at these things. They are using traffic data, where people are, and things like that. They are far smarter than I am on where they should site these. We will definitely get a learning experience from that first investment to inform how we make our next investments through a long-term planning process.

Assemblyman Watts:

My last question is around federal funding. In the transmission portion of the bill, I saw a reference about trying to utilize federal funding where possible. Obviously, there is a lot of conversation about federal resources in this building and in general. I am wondering if you could speak to that. Also, knowing there is the transportation electrification and other aspects, what are the opportunities that we have to utilize potential federal infrastructure funds to support the programs that are envisioned within the bill?

Senator Brooks:

It goes without saying that if federal funds become available, they need to go to this, but we felt we wanted to say it anyway. There is precedent for this. I can see the Biden Administration and this Congress saying they want to encourage transmission. The way they want to encourage it is not necessarily to write checks to transmission companies, but they could say the 26 percent investment tax credit that currently exists for renewable energy assets can be applied to transmission lines. That is actually a bill moving through Congress right now. If you were to apply that, all of a sudden, the capital expenditure on this whole project in front of you just went down 26 percent. Not exactly 26 percent, but the 26 percent tax value would be applied to this project. We wanted to make sure that was something we were directing the utility to do.

There is precedent for it. If you recall, early in the Trump Administration, there was a large corporate tax cut that took place. That affected the local utilities in our state. The PUCN said here is the tax cut, you got x amount of dollars for it, give that to the ratepayer. That is the kind of thing we are trying to direct. If federal funds became available, they are to the benefit of the ratepayer.

Assemblyman Watts:

I appreciate that. I want to thank you for all the work you have put in on this. I appreciate the data-based definitions. I have actually borrowed from them for a piece of legislation that my colleague referenced in relation to taking on smog and vehicle pollution. There is a bill that tries to provide assistance to folks in being able to obtain vehicles. I think it will complement the investments in infrastructure that are contemplated within this bill.

Chair Monroe-Moreno:

There are only two things I want to address that have not been asked. When you look at section 36, subsection 10, on the net metering, I did not see anything in there that says the energy savings the owner receives with rooftop solar would be passed onto the tenants. Why did you not include that? The owner will get a tremendous savings, but there is nothing being passed onto the grandmas who are their tenants.

Senator Brooks:

Mr. Johnston and I had a debate about this. It comes down to the housing market dictating what the cost of that unit is going to be. In a lot of these particular business models, it is subsidized low-income and senior housing. There is a certain amount of competition. They are getting U.S. Department of Housing and Urban Development credits, federal credits, sometimes new markets tax credits, and all kinds of different stacks of benefits and tax credits to try to drive the cost down because these are generally subsidized housing. At the end of the day, we are just trying to help the property owners lower their operating expense.

I do not know how we would necessarily dictate or even true up what those savings are and how they get passed onto the tenants in this particular case. It seems like it is implied, but it is almost impossible to prove what the benefit is and how it gets passed on and to what measure. I guess you could just say, "To the extent there is a benefit, pass it on to the tenant." However, we ran into a lot of obstacles in trying to come up with a way to say that. Does that make sense? To me, it is just implied. If there are lower operating expenses and you are in a market competing with other providers of low-income housing, it is just going to help you provide better low-income housing.

Chair Monroe-Moreno:

I hope the owners feel the same way you do, but we know there are a lot of property owners who may not have the same heart for their tenants that you do.

Senator Brooks:

This does not incentivize it. It does not say there is an incentive or "you must," it just says from a regulator standpoint, you are viewed as if you are one customer behind one meter. That is all it does. It facilitates the decision of the property owner to do that or not do that if they would like to. It would be like putting in high-efficiency air conditioning units. How would we say if someone puts in a more efficient air conditioning unit, you must pass on the value or savings to your tenants? It is just an energy-efficiency measure. We are just now, through this, making it clear that it is allowed to do.

Chair Monroe-Moreno:

In the last legislative session, we were able to pass Assembly Bill 465 of the 80th Session, the expanded solar access program. Do you feel anything in this legislation would be in conflict with that?

Senator Brooks:

Absolutely not. As a matter of fact, I think there might be things, especially around the continual evolution of workforce development, that legislation has paved the way for and this would complement.

Chair Monroe-Moreno:

I know there was a comment earlier that there is a lot in this bill that came in 120 days. I think we have heard through questions and testimony that this work has been in the process for more than a year. Thank you for the work. For those of us who worked on this bill with you, we did not always agree, but I think we came to a pretty good bill.

Seeing no other questions from the Committee, I will open the hearing for testimony in support. I want to preface that some members may have to leave to go to another committee. Please do not think they are not interested in the content, but we do have other committees going on.

Senator Brooks:

On Zoom, there are a handful of folks who wanted to present in support of the bill and were not able to make it because of our hectic legislative session schedule in the Senate hearing. I do not know if you could go to them as well.

Chair Monroe-Moreno:

We will go to those who are here in the room first, then we will go to Zoom.

Danny Thompson, representing International Brotherhood of Electrical Workers, Local 1245 and Local 396:

These are the workers who will construct the Greenlink. These jobs are not for everyone. If you are afraid of heights, you cannot do these jobs. If you are afraid of electricity, you cannot do these jobs. The workers are highly trained and they served a four-year apprenticeship. We are excited about opening the apprenticeship program to more apprentices that we will train to do this work. It is not just those 4,000 jobs you are talking

about. If you look at the map closely [page 6, [Exhibit C](#)], the benefit to rural Nevada cannot be understated. All of those zones that are identified on that map are potential renewable generation sites. That is another thing Nevada has. We have a lot of gold mines. If you look at a map of America, that is the best you are going to get when you look at solar opportunities and renewable generation. This is an exciting, new opportunity.

I first met Senator Brooks 21 years ago when he was just out of the apprenticeship program. He was promoting solar then. He did not just start doing this when he got to the Legislature, he has done this his whole life. We want to thank him for introducing this bill and urge you to support it.

Matthew Griffin, representing Switch:

Switch is a global technology infrastructure corporation and has been named in the top ten of leading global companies for its investment in utilizing solar energy by the Solar Energy Industries Association. We have been powered by 100 percent renewable energy since 2016, and in the next coming years we will be powered by Rob Roy's Gigawatt 1.

I am here today on behalf of Switch to offer our strong support for S.B. 448 (R2), as it represents Nevada's ongoing commitment to making Nevada a renewable energy leader regionally and nationally. Nevada needs more transmission infrastructure for renewable energy and more storage to meet our sustainable energy goals and to become a key regional player in the clean energy future.

We encourage regulators to embrace innovation, explore ways to reduce costs for all ratepayers, and we specifically thank the sponsor and everyone who has worked on this bill for bringing it, and we urge your support today.

Dan Musgrove, representing Southern Nevada Building Trades Unions:

Much has been said already about how important this is. Mr. Brown talked about three simple words. Those three simple words were actually used in 1980 in talking about getting out of a recession by a Presidential candidate: jobs, jobs, jobs. Let us talk about getting out of a pandemic as well.

This is important legislation. When you look at that map [page 6, [Exhibit C](#)], those projects will not come if we cannot get the electricity to the grid, and the men and women of the building trades—who are a very diverse group of men and women—would love to have the opportunity to get those projects on the ground and get electricity and green energy into the grid. We support the bill.

Chair Monroe-Moreno:

For those in the overflow room, if you are planning on testifying, please come over to this room and hang out in the hallway if you do not see a chair in the room.

Susan Fisher, representing Ovation Development Corporation; Cyrq Energy; and Able Grid Energy Solutions:

Cyrq Energy is a geothermal company with operations here in Nevada. We are very excited about having additional transmission supply because, as you know, you can put solar in certain places, but geothermal is where it is. It will be nice to have access to additional transmission.

Able Grid Energy Solutions is an energy storage company. We are agnostic on the type of energy that goes into it. We are very excited about having additional opportunities there.

Alan Molasky with Ovation Development Corporation was not able to be here today to speak. He asked me to put some comments on the record. I am not going to read all of his comments into the record, just a few. He is the CEO and founder of Ovation Development. Ovation has built and managed over 8,000 apartment homes in southern Nevada, and they have about another 2,000 homes in the works right now. In addition to their market-rate communities, they are one of Nevada's major providers of senior affordable housing, as you heard from Senator Brooks.

I will also add on the tenant solar, which is what I refer to as the solar on apartment, we have been working with Senator Brooks on this for over four years now. This is not something we just decided to toss out here. We have gone through several iterations of language. It is also broad enough so it will apply to commercial properties as well, like a strip mall or a commercial building.

The Molasky family have been advocates of renewable energy since 1979, which is the year Alan Molasky built three passive solar homes, the first ever built in the country. His father, Irwin Molasky, has been recognized by the U.S. Green Building Council for a lifetime achievement for his many buildings that have obtained gold standards.

We are very much in support of Senate Bill 448 (2nd Reprint), which will allow the owners of multifamily properties to install renewable energy systems.

Mackenzie Warren, representing Nevada State Apartment Association:

Madam Chair, to address your question directly about section 36, we are here in support because we plan on passing on the savings to our tenants. I got a quick yes. We are 162,000 units and 67 percent of all multifamily. Innovation Properties Group is one of our largest members and it is their intention to implement this in their senior living. Using the example of Senator Brooks' grandmother in North Las Vegas, that is the intent of Innovation. Anytime we can stabilize operating costs, we are going to stabilize rents. Apartment communities are large power users. We use power to keep the lights on in the parking lots, community spaces, hallways, the pool, and the gym.

Anecdotally, I think apartment shopping looks different. I think these days, folks are looking for greener, more sustainable living options. Those living in apartments should have access to those greener, more sustainable options. We are happy to support this bill.

Tom Polikalas, representing Western States Hydrogen Alliance:

Western States Hydrogen Alliance is a trade association comprising some of the national and international leaders in deploying hydrogen fuel cell and related technologies. The Western States Hydrogen Alliance finds this is a bill that is very complementary with the development of hydrogen technologies. Senator Brooks alluded to some of those, particularly in the storage of energy. Hydrogen has been identified by the National Renewable Energy Laboratory as perhaps the ideal long-term storage option. We are also pleased to see that NV Energy and other stakeholders are beginning to look at hydrogen technologies, which represent another huge economic opportunity in the clean energy space.

Thank you for your time and indulgence. We are pleased to support S.B. 448 (R2).

Baird Fogel, representing Haas Automation, Inc.:

I am here on behalf of Haas Automation, Inc., in support of S.B. 448 (R2), specifically sections 45 to 47 of the Economic Development Electric Rate Rider Program (EDRR). As many of you may not know, Haas is a machine tooling and manufacturing company that is planning to build a manufacturing facility in Nevada that will provide around 2,000 high-paying, skilled labor jobs that are deemed essential and, therefore, pandemic-proof.

The provisions of sections 45 to 47, which extend the EDRR to 2024, are a key component in the company's consideration in making southern Nevada a new manufacturing hub for the company. We look forward to working with local and state officials as we continue to develop our plans. We thank you all for your consideration of this important legislation.

Chair Monroe-Moreno:

Is there anyone waiting to testify in support on Zoom?

Sarah Steinberg, Principal, Advanced Energy Economy:

Advanced Energy Economy is an industry association comprising businesses dedicated to making the energy we use secure, clean, resilient, and affordable. We also manage the Advanced Energy Buyers Group, which represents the interests of large electricity consumers interested in meeting clean energy goals.

I appreciate the opportunity to be before you today to support S.B. 448 (R2) and the provisions that move Nevada toward participation in the Western wholesale energy market, also known as an RTO, a regional transmission organization. We thank Senator Brooks for bringing this bill forward.

A western RTO should be a priority for all states that have committed to ambitious clean energy goals and want to achieve those goals in an efficient, cost-effective, and reliable way. This bill will position Nevada as a leader and gives the state a prominent voice in the design of the market to ensure maximum economic gains flow to the state.

An RTO offers many benefits; most importantly, it will lower future energy costs for all ratepayers and lower the energy burden of customers for whom electricity is a significant monthly expense. It does so by harnessing competitive forces and creating a platform to share excess low-cost resources, often renewables like solar and geothermal, around the region. This sharing displaces higher costs and dirtier resources and allows for more affordable renewables to come online. It also coordinates infrastructure planning and more efficiently uses existing infrastructure.

Other benefits include increased grid resilience if Nevada's powerplants face unexpected weather, like we saw in Texas. The state can import energy to continue serving its customers. An RTO will facilitate the development of new transmission lines, solar, wind, and geothermal resources in Nevada, adding to the state's tax base and creating good paying jobs.

Finally, large energy users and data centers are increasingly looking to expand into states that give them access to low-cost, reliable, and clean electricity. These companies prefer locations within an RTO, which enable more renewable and affordable purchasing options to power their operations. Senate Bill 448 (2nd Reprint) makes Nevada an attractive destination for these large employers. There is no time like the present to start planning for the grid of the future, and S.B. 448 (R2) sets the state up for success for decades to come. [[Exhibit H](#) and [Exhibit I](#) were also submitted.]

Carolyn Turner, Executive Director, Nevada Rural Electric Association:

The Nevada Rural Electric Association (NREA) is here today in support of S.B. 448 (R2), and we would like to thank Senator Brooks for all of his work on this bill. The NREA represents the collected interests of ten consumer-owned utilities throughout the state of Nevada 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 services to the communities it serves.

Local governance has resulted in the deployment of innovative solutions by consumer-owned utilities, such as community solar programs, the expansion of electric vehicle charging infrastructure, partnership with the Governor's Office of Energy, and early adoption of low-carbon energy resources.

Consumer-owned utilities have a vested interest in a robust transmission network that supports the economic development goals and vitality of all Nevada communities, both rural and urban. The NREA members acquire and deliver electricity independently; however, the majority of our members receive transmission services from NV Energy. As demand on the energy system has grown in our state, congestion has occurred within the confines of existing infrastructure. It is critical that future projects address these capacity limitations and prioritize the needs of native load within our state.

In addition to investment in physical infrastructure, S.B. 448 (R2) contemplates the formation of an organized energy market in the West over the next decade. The NREA takes no position on any particular market construct at this time, however, we are very supportive of the establishment of the Regional Transmission Coordination Task Force envisioned in section 31 of the bill.

The NREA would further like to thank Senator Brooks 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 working collaboratively with other stakeholders to ensure that participation in an organized market is with the best interest of all Nevadans in mind.

Rudy Zamora, Program Director, Chispa Nevada:

Chispa Nevada is an organizing program dedicated to building the power of Latinx communities to have a say in decisions that affect our environment. We had a larger presentation, but due to time, we are going to shorten it. We helped Senator Brooks come up with the historically underserved communities, and we have submitted an exhibit on how those maps would lay out and what those categories are [[Exhibit J](#)].

Overall, we are here to support S.B. 448 (R2), especially section 12, which includes language to ensure that at least 40 percent of the funding investments in electric transportation infrastructure reach our historically underserved Nevadans who mostly need the benefits of zero-emission transportation.

Due to decades of environmental injustices, low-income, Black, Indigenous, and people of color in Nevada have been more exposed to air pollution, breathing dirtier air that harms our health and raises financial costs. Low-income people of color especially are more likely to live near major sources of pollution, like interstates and highways. Investing in zero-emission transportation can go a long way to address disproportionately shared pollution.

Our community wants to see these investments in electric vehicle charging infrastructure being made in neighborhoods and in the modes of transportation that we most use; not only electrifying personal vehicles, but also school buses, transit buses, and vehicles used for car sharing. This, as well as well-funded public transit, can clean up the air and reduce the number one source of [unintelligible] in the transportation sector.

We would also like to express our support for requiring 10 percent of energy efficiency plan expenditures be spent in the low-income households and support historically underserved communities. Despite using less energy, low-income households or people of color are spending higher portions of their income paying energy bills. Energy-efficiency programs must be targeted and marketed to our communities. This is the first step to ensure we reduce energy costs for low-income families and people of color in Nevada. [A letter was also submitted, [Exhibit K](#)].

Chair Monroe-Moreno:

There is no one else on Zoom to provide testimony in support. Since we are on Zoom, I am going to stay there to open testimony in opposition. Is there anyone joining us on Zoom to testify in opposition? [There was no one.] Is there anyone here in the room who would like to provide testimony in opposition? [There was no one.] Is there anyone here in the room who would like to provide neutral testimony?

Laura Granier, representing Nevada Resort Association:

I would like to thank Senator Brooks for his work on this bill and acknowledge his efforts to advance renewable energy development and job creation. Nevada's resort industry is a world class leader in sustainability, environmental protection, and clean energy development. The members of the Nevada Resort Association (NRA) are committed to identifying and implementing solutions to reduce greenhouse gases and carbon emissions and promote energy and water conservation.

For instance, MGM Resorts recently built America's largest, continuous rooftop solar array at the Mandalay Bay Convention Center, one of many examples of leadership from an NRA member on sustainability and renewable energy issues. We have worked very hard with the sponsor, NV Energy, and the PUCN to resolve our concerns and we appreciate all the time and effort on that. The changes reflected in the amendment [[Exhibit G](#)] reflect important clarifications to ensure the PUCN retains all jurisdiction and discretion over any requests by NV Energy for financial incentives, such as deferred accounting, regulatory asset treatment, construction work in progress, or other financial incentives that could increase cost to customers. With one exception that is specifically called out in section 49, subsection 11, there is no intention to mandate any financial incentives for the utility, but instead the statute leaves all discretion with the PUCN to decide any such requests.

The bill now also ensures the utility will seek recovery through the normal course in a general rate case. These amendments were important to the NRA to ensure the PUCN retains full authority over utility requests for special accounting treatment and financial incentives, given the cost impact those can have on customers. The NRA sought these amendments as clarifications out of concern, not only as businesses but also for the hundreds of thousands of employees of the resort industry who are all impacted by utility rates. These changes ensure that the PUCN retains full authority and regulatory discretion to consider impacts to customers and decide whether to grant any requests from the utility for special accounting treatment, such as regulator asset, deferred accounting, or other financial incentives that make projects more expensive for customers.

Again, we appreciate the collaboration of the sponsor, NV Energy, and the PUCN in preparing the language included in the amendment to help ensure the PUCN's discretion that full regulatory authority remains in place. As Senator Brooks mentioned, it is critical that the agency retain all of its tools, discretion, and jurisdiction to monitor rate impacts in utility earnings. [Written testimony was also submitted, [Exhibit L](#).]

Chair Monroe-Moreno:

I would encourage you to give our secretary your written testimony. We have reached the two-minute limit. Seeing no one else in the room to provide neutral testimony, we will move to Zoom to see if we have anyone joining us virtually to give neutral testimony. [There was no one.] Is there anyone joining us by telephone who would like to provide neutral testimony?

Jaina Moan, External Affairs Director, The Nature Conservancy:

Thank you for the opportunity to provide neutral testimony for S.B. 448 (R2). The Nature Conservancy supports a new energy economy and investments in clean energy, which are necessary for adjusting our urgent threat of climate change. Bills such as S.B. 448 (R2) represent important steps for Nevada. We believe that as we take these important steps for a greener future, any scenario for energy build-out should include strategic implementation that allows for our economy to thrive 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 in the "Complex Climate Challenges for Nevada" section. A smart-from-the-start energy plan identifies and prioritizes lower-impact areas where renewable generation, storage, and transmission can be deployed while minimizing impact to natural lands, cultural resources, recreation, and other conservation values.

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

We want to alert the Committee to our written testimony [[Exhibit M](#)] which describes the benefits of a smart-from-the-start approach to energy planning and offers recommendations for next steps we can take to ensure we deploy energy resources in a way that minimizes adverse impacts for both people and nature. Thank you so much for consideration of our comments.

Chair Monroe-Moreno:

Are there any other callers waiting to provide neutral testimony? [There was no one.] When we went through opposition testimony, I failed to ask if there was anyone on the phone wishing to provide testimony in opposition. Is there anyone waiting on the phone to provide opposition testimony?

Patrick Donnelly, Nevada State Director, Center for Biological Diversity:

I am speaking in opposition to S.B. 448 (R2) today. There are many elements of the bill that we support. We are in full support of the rapid transition to a carbon-free future. However, the transmission portion of this bill is unacceptable and forces us to oppose.

The one thing no one has spoken about today is where we are going to put all of this renewable energy? The new transmission lines will open up vast amounts of our wild spaces to enter renewable energy development. Yes, it is likely that we need to have some sacrificed zones in order to meet our renewable energy goals. However, S.B. 448 (R2) has no provision for planning for this renewable energy future. The philosophy here is building a couple of billion-dollar transmission lines that ratepayers foot the bill for and let the market figure out where to put solar farms.

There could be huge consequences to this. Greenlink North follows the path of the loneliest road in America, U.S. Highway 50, across some of the most remote and beautiful places in the state, through Austin and Eureka—beloved landscapes to Nevadans and internationally iconic. I bet many of you have driven down the loneliest road at some point.

As I said, S.B. 448 (R2) contains no planning. If NV Energy builds a transmission line through there, it could turn into the loneliest solar farm in America if we do not have planning to ensure appropriate siting of these facilities. Putting forward policies like those in S.B. 448 (R2) is irresponsible without thorough planning and environmental impact analysis.

Senate Bill 448 (2nd Reprint) needs an amendment to ensure there is a smart-from-the-start review of impacts to the environment and environmental justice from the build-out of these transmission lines. Without it, this bill jeopardizes the values which make Nevada so wild and great. Such an analysis would likely show that the environmental and social impacts of building a transmission line along the loneliest road would not be acceptable to most Nevadans. Until such an amendment is put forward, we must oppose this bill.

Chair Monroe-Moreno:

Are there any other callers in opposition? [There were none.]

Senator Brooks, you brought a large number of people with you today. I said I would give 15 minutes for opposition, 15 minutes for support, and 15 minutes for neutral. Because there are so many people in the room and because the opposition did not use the total 15 minutes, I will allow you the remaining time that would have been for opposition. I am going to step out to vote in another committee. Assemblyman Watts will take over the meeting until my return.

[Assemblyman Watts assumed the Chair.]

Vice Chair Watts:

You can proceed whenever you are ready.

Jessica Ferrato, representing Solar Energy Industries Association:

For the sake of brevity today, I am here in support of the bill. I want to specifically highlight the provisions on the RTO. We think this is going to position Nevada to be a leader across the West. We would like to thank Senator Brooks for all of the work on the bill, and we look forward to working with all of you.

Rose McKinney-James, representing Valley Electric Association:

The CEO of Valley Electric Association, Mark Stallons, was unable to attend today. I believe during his remarks, the sponsor of the bill mentioned that Valley Electric is the lone utility that is a member of the California ISO. We have been very active in the transmission space and the renewable energy space. We simply want to go on the record in support of this measure.

I will note, if you will allow, on a personal basis, I think this is allowing our state to advance in a direction that will continue the leadership we have established over time. I express my appreciation to you as policymakers for making this the path forward. I want to express my great appreciation to Senator Brooks. I think he is a bold and important leader in this space. We look forward to continuing to support those efforts. We ask for your support of this measure.

Vice Chair Watts:

Is there anyone else in the room who would like to provide testimony in support? [There was no one.] Is there anyone waiting on the phone to provide testimony in support?

Andy Donahue, representing Laborers-Employers Cooperation and Education Trust:

I would like to thank the sponsor for such meticulous attention. We would like to support the bill as was presented today. To conclude, we would like to thank the sponsor.

Angie Dykema, Nevada Representative, Southwest Energy Efficiency Project:

The Southwest Energy Efficiency Project is in support of S.B. 448 (R2). For the sake of efficiency, I will keep it short. We are very grateful to Senator Brooks for introducing this long-awaited piece of legislation. We strongly urge the Committee to support this bill. We definitely thank Senator Brooks for including the component on energy efficiency in the package of legislation. Thank you for the consideration of our comments. [A letter was also submitted, [Exhibit N](#).]

Dylan Sullivan, Senior Scientist, Climate and Clean Energy Program, Natural Resources Defense Council:

The Natural Resources Defense Council (NRDC) is a strong supporter of S.B. 448 (R2). In the interest of time, I want to direct your attention to NRDC's letter of support, which is filed as an exhibit [[Exhibit O](#)]. It includes detail on how electric vehicles are critical to meeting climate goals and reducing air pollution, and how all ratepayers benefit from increased electric vehicle adoption. We are also strong supporters of the transmission build-out that is contemplated in the bill, and also strong supporters of the increased focus on low-income households and historically underserved communities, both in the deployment of electric vehicle infrastructure and in energy efficiency programs.

I want to thank Senator Brooks for his work on this legislation and the work of other stakeholders and members. I urge you to support this bill.

Vice Chair Watts:

Thank you, Mr. Sullivan. I appreciate your submitting longer, written remarks and giving brief remarks by phone. I would encourage others to do that so we can get through as many people as possible. I will note for the Committee and the public's information that there are many written exhibits in support of the bill available on the Nevada Electronic Legislative Information System. I would encourage everyone to check those out. We can go to the next caller at this time.

Richard "Skip" Daly, representing Laborers Union, Local 169:

We want to express our support for this measure, which not only addresses infrastructure, building out the grid, emissions, and the issues surrounding those, it also creates jobs. I especially appreciate the labor standards within the bill and the things being corrected there. We want to add our support to this measure.

Cesar Diaz, Senior Policy Manager, ChargePoint, Inc.:

I am testifying in support of S.B. 448 (R2). ChargePoint, Inc., is the leading provider of electric vehicle charging stations and network services in North America and the globe. ChargePoint applauds Senator Brooks and the coauthors of S.B. 448 (R2) for considering transportation electrification in this bill and hearing our concerns.

We are fully supportive of this bill. With the recent amendment, testimony, and clarification, we believe section 49 will support competition, innovation, and private capital investment by nonutilities. That will result in more choices while reducing carbon emissions and air pollution. We look forward to working with members of the Committee, the rest of the Legislature, the PUCN, and utilities to implement these programs.

Matt Rubin, Clean Energy Program Analyst, Western Resource Advocates:

Western Resource Advocates (WRA) is a nonprofit organization dedicated to protecting the West's land, air, and water. Western Resource Advocates would like to thank Senator Brooks for sponsoring this bill. Three issues we would like to highlight that WRA supports is expanded transmission infrastructure, enabling the next generation of zero-carbon transportation, and implementing a long-term plan for achieving our climate goals. [Written testimony was also submitted, [Exhibit P](#).]

Emily Duff, Manager, State Policy, Ceres:

Ceres runs the BICEP [Businesses for Innovative Climate and Energy Policy] Network, which is a coalition of 70 major employers across the country. We agree with much of what has been said in support of the bill. I want to note that we have submitted a letter as part of our testimony, signed by seven businesses with operations in Nevada [[Exhibit Q](#)]. In particular, this letter outlines the important role utilities have in supporting the transition to transportation electrification. This bill will help establish utility electric vehicle programs that will increase customer awareness, help businesses and consumers address upfront costs, and enable a robust and equitable charging network that will help stimulate the economy and create local jobs.

Rob Benner, Secretary-Treasurer, Building and Construction Trades Council of Northern Nevada:

We stand in support of S.B. 448 (R2) as a job-creating bill that would help make Nevada a nationwide renewable energy leader and create thousands of good-paying, local construction jobs for Nevada's workers.

Wendi Newman, Executive Director, Unified Construction Industry Council:

We are in support of S.B. 448 (R2).

Elsbeth Cordua DiMarzio, representing Toiyabe Chapter, Sierra Club:

The Toiyabe Chapter of the Sierra Club represents more than 40,000 members and supporters statewide in support of S.B. 448 (R2).

Senate Bill 448 (2nd Reprint) is an important step forward to combat climate change, but this legislation will also need to be accompanied by future bold action by the Legislature and other regulatory bodies in Nevada to bring equity in the fight for climate justice. Nevadans are on the front lines of the climate crisis with the fastest warming city in the nation, recurring wildfires, and ongoing drought. Climate change is not something that will impact us in the far-off future, it is impacting our communities and our livelihoods now.

For these reasons and others, we support S.B. 448 (R2) and want to thank Senator Brooks for his work on this piece of legislation. We have also submitted written comments [[Exhibit R](#)].

[Assemblywoman Monroe-Moreno reassumed the Chair.]

Chair Monroe-Moreno:

That was our last caller for testimony in support. Senator Brooks, do you have any final comments?

Senator Brooks:

I want to thank you for the thorough, complete, and lengthy hearing on this bill, and for your thoughtful questions. Assemblyman Wheeler and Assemblyman Ellison, will you send me something on that issue you were talking about because I want to do some more research on that? I appreciate it.

Submitted as exhibits but not discussed during the hearing are [[Exhibit S](#)] through [[Exhibit RR](#)] and will become part of the record.

Chair Monroe-Moreno:

I will close the hearing for Senate Bill 448 (2nd Reprint). That brings us to the last item on our agenda, which is public comment. Is there anyone here in the room who would like to provide public comment? Remember, public comment is neutral comment and nothing about the bill we just heard. [There was no one.] Is there anyone joining us virtually who would like to provide public comment? [There was no one.]

Members, thank you for the patience and the great dialogue on vetting this bill today. I truly appreciate that. Our next meeting will be on Thursday, May 27, 2021. Hopefully, we will be able to start at 1:30 p.m.

This meeting is adjourned [at 5:18 p.m.].

RESPECTFULLY SUBMITTED:

Lori McCleary
Committee Secretary

APPROVED BY:

Assemblywoman Daniele Monroe-Moreno, Chair

DATE: _____

EXHIBITS

[Exhibit A](#) is the Agenda.

[Exhibit B](#) is the Attendance Roster.

[Exhibit C](#) is a copy of a PowerPoint presentation titled "Nevada's New Energy Economy," presented by Senator Chris Brooks, Senate District No. 3, regarding Senate Bill 448 (2nd Reprint).

[Exhibit D](#) is a document titled "SB 448 – Key Points," submitted by Senator Chris Brooks, Senate District No. 3, regarding Senate Bill 448 (2nd Reprint).

[Exhibit E](#) is a document dated May 12, 2021, titled "BDR 46-Index of Topics and Sections," submitted by Senator Chris Brooks, Senate District No. 3, regarding Senate Bill 448 (2nd Reprint).

[Exhibit F](#) is a breakdown of bill sections with explanations submitted by Senator Chris Brooks, Senate District No. 3, regarding Senate Bill 448 (2nd Reprint).

[Exhibit G](#) is a conceptual amendment to Senate Bill 448 (2nd Reprint) dated May 25, 2021, submitted by Senator Chris Brooks, Senate District No. 3.

[Exhibit H](#) is written testimony dated May 25, 2021, submitted by Sarah Steinberg, Principal, Advanced Energy Economy, in support of Senate Bill 448, (2nd Reprint).

[Exhibit I](#) is a document titled "Why Nevada Needs to Plan for a Regional Grid Now," submitted by Sarah Steinberg, Principal, Advanced Energy Economy, regarding Senate Bill 448 (2nd Reprint).

[Exhibit J](#) is a copy of a PowerPoint presentation titled "Equity Improvements to Transportation Electrification Infrastructure Legislation," submitted by Rudy Zamora, Program Director, Chispa Nevada, regarding Senate Bill 448 (2nd Reprint).

[Exhibit K](#) is a letter submitted by Rudy Zamora, Program Director, Chispa Nevada, in support of Senate Bill 448 (2nd Reprint).

[Exhibit L](#) is written testimony submitted by Laura Granier, representing Nevada Resort Association, regarding Senate Bill 448 (2nd Reprint).

[Exhibit M](#) is written testimony dated May 24, 2021, submitted by Mauricia M.M. Baca, Nevada State Director, The Nature Conservancy, neutral to Senate Bill 448 (2nd Reprint).

[Exhibit N](#) is a letter dated May 24, 2021, submitted by Angie Dykema, Nevada Representative Southwest Energy Efficiency Project, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit O](#) is a letter dated May 25, 2021, submitted by Dylan Sullivan, Senior Scientist, Climate and Clean Energy Program, Natural Resources Defense Council, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit P](#) is a letter submitted by Matt Rubin, Clean Energy Program Analyst, Western Resource Advocates, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit Q](#) is a letter dated March 29, 2021, from various organizations, submitted by Emily Duff, Manager, State Policy, Ceres, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit R](#) is written testimony dated May 24, 2021, submitted by Elspeth Cordua DiMarzio, representing Toiyabe Chapter, Sierra Club, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit S](#) is the Public Utilities Commission of Nevada's Fiscal Impact Statement, dated May 20, 2021, submitted by Stephanie McMullen, Executive Director, Public Utilities Commission of Nevada, regarding [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit T](#) is a document titled "Fiscal Notes – Fiscal Note ID 10325," submitted by Stephanie McMullen, Executive Director, Public Utilities Commission of Nevada, regarding [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit U](#) is a document dated May 18, 2021, titled "State of Nevada – Budget Division, Payroll/Position Detail," submitted by Stephanie McMullen, Executive Director, Public Utilities Commission of Nevada, regarding [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit V](#) is written testimony dated May 25, 2021, from various organizations, submitted by Sarah Steinberg, Policy Principal, Advanced Energy Economy, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit W](#) is written testimony dated May 24, 2021, submitted by Thomas Ashley, Vice President, Policy & Market Development, Greenlots, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit X](#) is written testimony dated May 25, 2021, submitted by Benjamin Prochazka, Executive Director, Electrification Coalition, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit Y](#) is written testimony dated May 24, 2021, submitted by Paulette Stauffer Henriod, Nevada Environmental and Sustainability Specialist, Mormon Women for Ethical Government, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit Z](#) is written testimony dated May 24, 2021, submitted by Ann Silver, CEO, Reno + Sparks Chamber of Commerce, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit AA](#) is written testimony dated May 25, 2021, submitted by Susan Nedell, Advocate, E2 Mountain West, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit BB](#) is written testimony, submitted by Melissa Ramos, Manager, Clean Air Advocacy, American Lung Association, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit CC](#) is written testimony, submitted by Cinthia Moore, National Lead, EcoMadres, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit DD](#) is written testimony dated May 25, 2021, submitted by Mary House, representing CHR, Inc., in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit EE](#) is written testimony dated May 25, 2021, submitted by Joel Levin, Executive Director, Plug In America, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit FF](#) is written testimony, submitted by Thomas Cain, CEO, Sustainability Partners, LLC, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit GG](#) is a document titled, "Solving sustainable transportation needs with Infrastructure as a Utility Service," submitted by Thomas Cain, CEO, Sustainability Partners, LLC, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit HH](#) is a document titled, "Electric Vehicle Fleet & Charging Stations," submitted by Thomas Cain, CEO, Sustainability Partners, LLC, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit II](#) is written testimony, submitted by Ryan Cherry, Managing Director, Coalition for the Optimization of Renewable Development, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit JJ](#) is written testimony dated May 25, 2021, submitted by Ed Garcia, representing Consolidated Edison Clean Energy Businesses, Inc., in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit KK](#) is written testimony, submitted by Nate Blouin, Policy Manager, Interwest Energy Alliance, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit LL](#) is written testimony, submitted by Jerry Holliday, Director, Uplift Foundation of Nevada, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit MM](#) is written testimony, dated May 25, 2021, submitted by Annette Magnus, Executive Director, Battle Born Progress, in support of [Senate Bill 448 \(2nd Reprint\)](#).

[Exhibit NN](#) is written testimony dated May 25, 2021, submitted by Will Drier, Senior Policy Analyst, Electrification Coalition, in support of Senate Bill 448 (2nd Reprint).

[Exhibit OO](#) is written testimony submitted by Matthew Dustin, representing Southern Nevada Chapter, National Electrical Contractors Association, in support of Senate Bill 448 (2nd Reprint).

[Exhibit PP](#) is written testimony submitted by Christi Cabrera, Policy and Advocacy Director, National Conservation League, in support of Senate Bill 448 (2nd Reprint).

[Exhibit QQ](#) is written testimony dated May 25, 2021, submitted by Paul Selberg, Executive Director, Nevada Conservation League, in support of Senate Bill 448 (2nd Reprint).

[Exhibit RR](#) is written testimony dated May 25, 2021, submitted by Andrew J. MacKay, Executive Director, Nevada Franchised Auto Dealers Association, in neutral to Senate Bill 448 (2nd Reprint).