

**MINUTES OF THE
SENATE COMMITTEE ON COMMERCE, LABOR AND ENERGY
SUBCOMMITTEE ON ENERGY**

**Seventy-ninth Session
March 3, 2017**

The Subcommittee of the Senate Committee on Commerce, Labor and Energy was called to order by Chair Pat Spearman at 1:03 p.m. on Friday, March 3, 2017, in Room 2144 of the Legislative Building, Carson City, Nevada. The meeting was videoconferenced to Room 4412E of the Grant Sawyer State Office Building, 555 East Washington Avenue, Las Vegas, Nevada. [Exhibit A](#) is the Agenda. [Exhibit B](#) is the Attendance Roster. All exhibits are available and on file in the Research Library of the Legislative Counsel Bureau.

SUBCOMMITTEE MEMBERS PRESENT:

Senator Pat Spearman, Chair
Senator James A. Settelmeyer
Senator Patricia Farley

STAFF MEMBERS PRESENT:

Marji Paslov Thomas, Policy Analyst
Bryan Fernley, Counsel
Lynn Hendricks, Committee Secretary

OTHERS PRESENT:

Angela M. Dykema, Director, Office of Energy, Office of the Governor
Joseph C. Reynolds, Chair, Public Utilities Commission of Nevada
Robert Johnston, Western Resource Advocates
Kyle Davis, Nevada Conservation League; Interwest Energy Alliance
Kevin L. McGehee, Nevada Data Mining
Tom Polikalas, Southwest Energy Efficiency Project
Warren Hardy, Natural Resources Defense Council
Jarrett Clark, Program and Outreach Director, Clean Energy Project
Russell Rowe, Tesla, Inc.
Larry Fosgate, Clean Energy Project
Jacob Parrill
Judy Stokey, NV Energy
Ray Bacon, Nevada Manufacturers Association

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Danny Thompson

Fred Voltz

Kathleen Lauckner, Ph.D., Environmental Training Program Coordinator, School of Environmental and Public Affairs, University of Nevada, Las Vegas

Ralph E. Williamson, Senior Pastor, First African Methodist Episcopal Church; President, Faith Organizing Alliance

Leonard B. Jackson, Associate Minister, First African Methodist Episcopal Church; Director, Faith Organizing Alliance

Quentin Abramo, Facilitiq Business Interiors

Les Lazareck, Home Energy Connection, LLC

Angelica Romero

Victoria Ruiz

Jerry Holliday, Uplift Foundation of Nevada

Glenroy Cole, Las Vegas Urban League Young Professionals

Ernie Adler, International Brotherhood of Electrical Workers, Local 1245

Anne Macquarie, Toiyabe Chapter, Sierra Club

Tobi Tyler

Charlotte Cox, Climate Parents

Iridane Sanchez

Lena Paola

Howard Watts III

Terry Graves, Retail Energy Supply Association

CHAIR SPEARMAN:

I would like to lay out some of the ground rules for this Subcommittee. If you have cellphones or pagers, please silence them for these meetings. If you must take a call, please step out of the room. If you wish to testify, please sign in on the Attendance Roster by the door and provide a business card to the Committee Secretary. Pursuant to *Nevada Revised Statutes* (NRS) 218E.085, it is unlawful for a person to knowingly misrepresent facts when testifying before a Legislative Committee. A person who knowingly does so is guilty of a misdemeanor. The Chair or any member of the Subcommittee may request testifiers to submit documentation supporting their testimony. Amendments should always be discussed with the measure's sponsor before being presented in this Subcommittee.

This Subcommittee was appointed by the Chair of the Senate Committee on Commerce, Labor and Energy to make recommendations to the Committee

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addressing energy policy. As a Subcommittee, we will not take final actions on the measures we discuss. Rather, we will vet them in detail. I do not plan to hold a work session to consider proposed changes to a measure in the same meeting as that measure's hearing. This will give all parties an opportunity to discuss proposed changes before the Subcommittee makes its recommendation.

I would like for us to think about the work of this Subcommittee within the context of preparing a long-range energy strategy for the State of Nevada. This is not a binary choice; it is not a choice between solar energy and natural gas. We are here to figure out a way we can put together policies and procedures that provide a platform for us to move swiftly into the 20th century—and I do mean the 20th century, not the 21st century—with regard to energy policy.

I will open the hearing on Senate Bill (S.B.) 65.

SENATE BILL 65: Revises provisions related to the filing by certain electric utilities of an integrated resource plan. (BDR 58-167)

ANGELA M. DYKEMA (Director, Office of Energy, Office of the Governor):

I will first supply some background on the history of this bill. Last year, Governor Sandoval issued an executive order to convene the New Energy Industry Task Force (NEITF), with a primary directive of making recommendations on the best energy policies for Nevada's future. The NEITF was asked to address policies that encourage the development of clean energy sources and integrate renewable energy technologies into Nevada's energy sector, foster the creation of a modern, resilient, cost-effective energy grid, and support distributed generation and storage of energy with a specific focus on rooftop solar and net metering.

Senate Bill 65 was drafted from a recommendation by the NEITF. This bill reflects established State energy policy and aligns with Nevada's Strategic Planning Framework (SPF). This document, which can be found online at <http://gov.nv.gov/uploadedFiles/govnv.gov/Content/StrategicPlan/GovernorsPlanningFrameworkFinal.pdf>, is the result of many months of hard work by the Governor's Office to identify the values most important to Nevada, including a number of goals and objectives we have undertaken to reach those values. Senate Bill 65 helps to reach one of those goals, and that goal is in section 7.2 of the SPF under Resource Management: to "Become the nation's leading

producer and consumer of clean and renewable energy." The objectives under this goal are:

1. By 2020, complete an "electric highway" system serving the entire State.
2. Significantly reduce the percentage of imported fossil fuels over the next ten years.
3. Reduce carbon emission to a level at or below accepted federal standards.

I have a short presentation ([Exhibit C](#)) explaining S.B. 65, which revises provisions related to the Integrated Resource Plan (IRP) process conducted by the Public Utilities Commission of Nevada (PUCN).

There are two components to S.B. 65. Section 1 adds a new section to NRS 704 to provide for a broader IRP pre-filing process, allowing for greater public participation. The *Nevada Administrative Code* (NAC) currently requires that at least four months prior to the anticipated date for filing the IRP, the utility shall meet with the operations staff of the PUCN and the personnel of the Bureau of Consumer Protection (BCP) to provide an overview of the anticipated filing.

During the NEITF discussions, it was unanimously agreed that in order to allow for a more open and transparent planning process, the pre-filing process should be expanded to include greater participation by all interested persons. This bill integrates the existing language from NAC 704.952 and adds a provision that the utility shall meet not only with the PUCN and BCP staff but also with all interested persons.

The second component of this bill is in section 6 of S.B. 65. Currently, NRS 704.746 allows the PUCN to give preference to measures and sources of supply that provide the greatest economic and environmental benefits to the State, are consistent with the provisions of this section, provide levels of service that are adequate and reliable, and provide the greatest opportunity for the creation of new jobs in this State.

During the NEITF discussions, it was found that without clear legislative direction, the focus has tended to be on resources with the least cost rather than taking all of the above criteria into consideration. This focus on least cost undervalues the economic and environmental benefits of clean energy, does not

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adequately assess the fuel-price risk and carbon-price risk of overreliance on natural gas-fired generation, and does not diversify Nevada's energy portfolio.

Senate Bill 65 replaces the word "may" with the word "shall" in section 5 of NRS 704.746. This effectively ensures that during the IRP process, preference will be given to resources that provide the greatest economic and environmental benefit, create the greatest opportunity for the creation of new jobs, diversify the energy portfolio, reduce fuel-price and carbon-price risks, and help to position Nevada to lead the Nation as the producer and consumer of clean and renewable energy, consistent with established State policy.

SENATOR SETTELMAYER:

I have questions regarding the change from "may" to "shall" and also about price volatility. Price volatility is always a factor, whether the energy source is fossil fuels or renewable energy. Some renewable energies are also subject to volatility owing to regulations from the federal government. Is there any possibility to discuss the concept of broadening the provisions about volatility to cover price volatility in general, not just in particular sectors?

Ms. DYKEMA:

That is one of the values S.B. 65 would require be considered. We are looking at environmental and economic benefits. It does not apply to renewables only but to any resource that could meet those criteria.

SENATOR SETTELMAYER:

I was specifically talking about section 6, subsection 5, paragraph (e) of the bill, where it states we are only worried about the price volatility of fossil fuels. I am asking whether it would be acceptable to discuss the idea that we are worried about price volatility in general.

Ms. DYKEMA:

The discussions at the NEITF focused on the price volatility of fossil fuels. We noted that the prices of renewable energy have decreased significantly over the years and are trending downward to an affordable level. That was not the focus of the discussion, which was more about the risks of fossil fuel prices.

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CHAIR SPEARMAN:

Section 1 of S.B. 65 refers to " ... each utility which supplies electricity in this State." Is this semantics, or was the intention to refer to all utilities that supply electricity?

Ms. DYKEMA:

Are you asking if it would apply to rural electric co-ops as well? The language refers to all utilities that are regulated by the PUCN, consistent with the other provisions of NRS 704. It would not apply to rural electric co-ops.

CHAIR SPEARMAN:

We have often said we wanted to have plans in place that allow for expansion of renewable energy industries. Should this measure pass, would that passage refer to additional utilities that supply electricity, other than the co-ops?

Ms. DYKEMA:

That is a good question. I think it will depend on what that looks like if that does happen.

SENATOR SETTELMAYER:

The question will be whether we as a body choose to make sure all those entrants are regulated by the PUCN. If we dictate that they are, they will fall under all standards.

Ms. DYKEMA:

I would agree. That would most likely be the intent.

CHAIR SPEARMAN:

That is where I was going. I wanted to make sure that this legislation has the elasticity to grow with the resources and innovations in technology that will come along.

JOSEPH C. REYNOLDS (Chair, Public Utilities Commission of Nevada):

We are in support of S.B. 65 as submitted by the Governor's Office. In my analysis, there are three sections I would like to speak to. Regarding section 1 of the bill, I would look at this as a "notice to meet and confer" provision. That is, it requires the public utility, which would most likely be NV Energy, to meet with the Attorney General's Office and the PUCN four months before filing its

IRP. To me, that is common sense. It is what we should be doing in Nevada anyway. A lot of energy issues have folks talking at each other rather than with each other, and we are best when we are communicating. This is a common sense codification to make sure that happens.

Regarding section 5 of the bill, there has been some discussion outside of the PUCN regarding changing the discretionary "may" to the mandatory "shall." Some may argue that this reduces the PUCN's discretion, but I do not see it that way. That provision strengthens and clarifies Nevada's policy commitments, providing the PUCN with measurement tools and better guidance from this Legislature. I do not interpret these provisions as dictating an outcome from the PUCN; rather, they provide guideposts on the terminology we need to employ and evaluate to reach that outcome. This requires the PUCN to base its analysis on reliable and credible evidence and give that evidence its appropriate weight. I also believe section 5 is in step with the PUCN's mission, which is to protect the public interest, ensure fair and reasonable utility rates, and regulate the delivery services to benefit the economy, the environment and Nevadans.

Regarding section 5 of the bill, it discusses reduction of customer exposure to price volatility of fossil fuels and the potential costs of carbon. With respect to Senator Settelmeyer's question, ratepayers' exposure to price volatility is something I am concerned about in any proceeding, whether it is fossil fuels or other sources or forms of energy. That is something I am always concerned with as a regulator. Energy prices are constantly changing, and one of the purposes of the PUCN is to help mitigate the risk of price volatility and reduce the general public's exposure to it.

With respect to the provision on the pricing of carbon, this is something the PUCN already does. We objectively look at and analyze it, and we already have the mechanisms and the ability to do that.

This bill makes sense. I believe we can get it done, and it helps solidify Nevada's energy policies and intent. Energy efficiency and renewable efforts are not always cost-effective, but that does not mean they are not the right way to go. Change, progress and innovation can cost money in the short term. If I have to look only at costs in any issue, that tends to take the conversation to the lowest common denominator. I would like to see those conversations look more towards the overall value of these programs, and cost is just one element of

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value. I would like to see the energy conversation grow beyond just simple cost analysis and look to the larger values of our future, our environment and our economy. This bill moves in that direction.

CHAIR SPEARMAN:

Regarding section 6, subsection 5, paragraph (e) of S.B. 65, we have a lot of exposure because we only have one baseload. We do not have an expanded portfolio of resources so that if something were to happen with the price of natural gas, for example, there would be no protection for consumers from price volatility. Can you speak to that?

MR. REYNOLDS:

I agree. Diversity in the grid structure, not only of actual infrastructure but also of energy sources, helps mitigate exposure to volatility. If we had an earthquake or there was some other catastrophic event, a diverse infrastructure is a strong infrastructure.

SENATOR SETTELMAYER:

I agree. We need to have diversity within the energy portfolio. Look at Germany, where their reliance on solar power means that their prices fluctuate between \$15 and \$80 within a 96-hour period because clouds blocked the sun and they had to buy power. I want to make sure we look at all aspects that produce power, not just one, and diversify the portfolio. That is why I am worried about volatility overall rather than just the volatility of fossil fuels. Some renewable energies are far more predictable than others. For example, geothermal and hydroelectric power are more consistent than solar and wind energy.

CHAIR SPEARMAN:

That is a good point. When we start talking about the elasticity of our strategy, we need to consider not just resources but also a plan for integrated systems so those types of fluctuations do not happen. If we look at power sources individually, any one of them is subject to fail. Something could happen to the natural gas pipeline; the sun does not shine 24 hours a day; the wind does not blow all the time. I am concerned that whatever policies we put forth, we look at them through the lens of developing an integrated resources system so we have duplicative backups. That way, we are not exposed to the risk of one catastrophic incident that takes all of our hopes and dreams down the river. If

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we recommend this bill for passage, it has to be able to accomplish that goal of integrated systems operations. Whatever we do, we have to have redundancy.

ROBERT JOHNSTON (Western Resource Advocates):
We support S.B. 65. I have a handout ([Exhibit D](#)) regarding the need for this bill.

This bill arose out of a recommendation by the NEITF, and that recommendation originated in the Clean Energy Sources Technical Advisory Committee of the NEITF on which I served. The Governors' Accord for a New Energy Future, which was signed by Governor Sandoval and 16 other governors in February 2016, provides that "Our states will diversify energy generation and expand clean energy sources."

Our concern with Nevada's existing IRP process is that it has not been aligned with that clear goal expressed by Governor Sandoval. It was not adequately evaluating the costs and benefits of clean energy resources. Specifically, it was undervaluing the economic and environmental benefits of investing in energy efficiency and renewable energy, was not adequately assessing fuel-price risk and carbon-price risk from an overreliance on natural gas fire generation and was not planning to diversify our energy portfolios.

Page 3 of [Exhibit D](#) has a few examples of IRPs submitted by NV Energy in the last couple of years. These come from IRPs from Nevada Power Company and Sierra Pacific Power in 2015 and 2016. In Nevada Power's 2015 filing, the IRP approved by the PUCN assumed that they would add 2,253 megawatts (MW) of new natural gas fire generation in the decade from 2020 to 2030 and only 10 MW of new utility-scale renewable generation. That 10 MW was only in there because it was the last increment of the 350 MW of new renewable generation called out in Senate Bill No. 123 of the 77th Session.

As a result of those resource additions, NV Energy's IRP showed that over the course of the decade from 2020 to 2030, we would go from 72.8 percent natural gas and 16.5 percent renewable in 2020 to 78.7 percent natural gas and 16.2 percent renewable in 2030. Those projected fuel mixes are shown on page 4 of [Exhibit D](#). Rather than diversifying our energy generation, this IRP showed an increasing dependence on natural gas generation with its related fuel-price and carbon-price risks. Rather than showing a steady expansion of clean energy sources, the IRP showed a lost decade with essentially no progress

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in transitioning away from fossil fuel resources to renewable energy resources. It was the view of the Clean Energy Sources Technical Advisory Committee that this vision of our energy future could not be squared with Governor Sandoval's goal that Nevada become the Nation's leading producer and consumer of clean and renewable energy.

Page 3 of [Exhibit D](#) also shows an example with essentially the same numbers from Sierra Pacific Power's 2016 IRP. That IRP added 622 MW new natural gas generation and 475 MW renewable generation. This would result in a mix in 2020 of 73.6 percent natural gas and 18 percent renewable, and in 2030 of 63.9 percent natural gas and 25.1 percent renewable. A graphic representation of this mix is shown on page 5 of [Exhibit D](#). The 2016 IRP was an improvement over the 2015 version, but in our opinion, that long-term planning is not in line with Nevada's goals to diversify our energy portfolio, expand our renewable resources and decrease our exposure to fuel-price and carbon-price risks.

We believe the further policy direction on IRPs provided by [S.B. 65](#) is necessary to ensure that the PUCN, in its review of long-term resource plans, is acting in alignment with Governor Sandoval's declared goal that Nevada become a leading producer and consumer of clean and renewable energy. We believe, and polling confirms, that this goal is shared by an overwhelming majority of Nevadans. It is appropriate to put this preference in statute to help us achieve this goal. We urge the Subcommittee to recommend passage of [S.B. 65](#) to the Senate Committee on Commerce, Labor and Energy.

CHAIR SPEARMAN:

If this bill had not been presented, what would that do to the information on pages 3 and 4 of [Exhibit D](#)?

MR. JOHNSTON:

I would concur with Mr. Reynolds that this bill would provide clear policy direction to the PUCN and help it do its job. In the absence of this bill, it would depend on the direction taken by the PUCN. For a long time, the IRP laws have allowed the PUCN to give preference to those sources of supply that would drive an energy future in Nevada more reliant on renewable energy with stronger energy efficiency measures. However, there is no mandate. For that reason, we think [S.B. 65](#) provides a useful function of providing some clearer direction to make sure the PUCN's actions are aligned with State policy.

Regarding volatility, to date, all of the utility-scale renewable energy projects that have been built to serve NV Energy's customers' needs have been done on the basis of long-term purchase power agreements. There is no fuel-price risk. The cost of renewable resources like solar and geothermal is all capital. All of the money is spent up front, and they do not have fuel costs going forward. Under those long-term purchase power agreements, you know when the contract is executed what you are going to be paying over the term of the contract. Certainly, there are production risks, project failure risks and other risks, but there is no real fuel-price risk in the same fashion that you see fuel-price risk with a natural gas or coal-fired unit, where you cannot lock in the price for a long period of time.

KYLE DAVIS (Nevada Conservation League; Interwest Energy Alliance):

We are here today in support of S.B. 65. I was a member of the NEITF and chaired the subcommittee on new energy sources. The decision of the NEITF was to focus on the things that are going to have the biggest benefit as it relates to Nevada, and that is focusing on our in-state resources. This bill provides that direction in section 6.

KEVIN L. MCGEHEE (Nevada Data Mining):

I am in support of S.B. 65. As a business owner, I am vitally concerned with the economic development of our State. I believe relying on natural gas puts Nevada in a precarious position energy-wise, and that is why I support this bill.

TOM POLIKALAS (Southwest Energy Efficiency Project):

I served on the Clean Energy Sources Technical Advisory Committee of the NEITF. I am here in support of S.B. 65 with a little bit of a different perspective.

I had the experience of meeting a delegation from Croatia this past Monday, and in part of those discussions they were talking about a new liquefied natural gas terminal they were building to import natural gas. They are looking to take advantage of the lower prices available with U.S. producers. That is a global market that is going to be one of the factors we need to look at. With the trends I have seen, the likelihood is that natural gas prices will increase. Now that we are going to be looking at a more global market for natural gas, that will put upward pressure on natural gas prices. That will impact Nevada. It is risky to put all our reliance in one basket.

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As part of NV Energy's Demand Side Management Collaborative, I attended a series of information programs, one of which was a presentation by Integral Analytics, Inc., and the Strategy Integration Group regarding incorporated risk. Those of us who drove to this meeting today have car insurance and spare tires in our trunks even though we did not expect to be in an accident or have a blowout. Insurance and spare tires are part of the cost associated with controlling risk and factoring risk into the equation in how we operate our vehicles. The analysts at this seminar suggested that the PUCN ought to be incorporating some insurance against risk into their resource planning. The analysts said, "Currently accepted demand response evaluation methods fail to account for insurance benefits of demand response." They further said, "Using the criteria in the current decision methods were undervaluing alternative energy choices by ignoring the insurance value and risk adjusted risk of alternative energy resources."

With that in mind, as we take a look at what those associated risks of overreliance on natural gas, somewhere there is an insurance value that should be incorporated. This bill would give the PUCN an additional tool to appropriately evaluate risk.

WARREN HARDY (Natural Resources Defense Council):
We are in support of S.B. 65.

JARRETT CLARK (Program and Outreach Director, Clean Energy Project):
We strongly support the passage of S.B. 65. I have written testimony ([Exhibit E](#)) explaining the Clean Energy Project's support for this bill.

RUSSELL ROWE (Tesla, Inc.):
We are speaking in support of S.B. 65 today. Sustainability is a key mission of Tesla, both in Tesla Motors and Tesla Energy. Diversity of supply speaks directly to sustainability.

As Senator Settlemeyer said, it is important to have a diverse energy supply. If we can ensure that through the types of regulations proposed in this bill today, that is something Tesla supports. Look at what happened in California with the Aliso Canyon gas leak in 2015, where overreliance on one energy source created all types of problems for that community. Grid security also ties directly into sustainability, as Senator Spearman alluded to. This bill begins to move

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Nevada in a direction that ensures diversity of supply and grid security, making sure proper upgrades to the grid are done in a manner that protects the overall energy market is important in this State.

LARRY FOSGATE (Clean Energy Project):

I heartily support S.B. 65. I have written testimony ([Exhibit F](#)) expressing my support.

JACOB PARRILL:

I support this bill. I have written testimony ([Exhibit G](#)).

JUDY STOKEY (NV Energy):

We are neutral on S.B. 65.

We believe the first part of the bill is a great step. Getting more people involved in the process is always good, as is transparency. With regard to the second part of the bill, I appreciate the explanations offered by Ms. Dykema and Mr. Reynolds. I would like to go on the record as saying that we believe we already do look at all of these factors when we make our decisions, and the PUCN already has the flexibility to make those decisions. We have always used least-cost planning as our main focus to make sure we have a balance between customer rates and building renewables. I am happy to say we have been able to build quite a few renewables lately because the cost has been beneficial for the State of Nevada.

RAY BACON (Nevada Manufacturers Association):

We are neutral on S.B. 65.

I am looking at a couple of possible enhancements to the bill. One of the things that is a slight flaw to the IRP process is that it looks at a three-year window. When we look at price volatility, generation variability or the cost benefit of the whole, a three-year window may be too short. You might want to include a provision that the IRP process should also include some long-term projections on cost benefits of the various tasks and long-term projections on the volatility as far as generation. That would make this bill better.

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In general, we support what the bill is trying to do. It makes sense. Senator Settelmeyer's comments earlier are exactly on target, in that there are some volatilities not addressed by the bill, and some of them are short-term.

The only other comment I have is that at some point in time, the IRP process should perhaps be expanded to cover technology issues. The biggest variable right now as far as long-term projections is the storage issue. Electricity is wonderful, but we have no effective way to store it yet. There are things such as flow batteries in the technology chain that will change that whole equation. Consequently, if the IRP process looked at technology issues, variability issues and long-term projections, we would end up with a better long-term product.

I will submit relevant information for the record ([Exhibit H](#)).

DANNY THOMPSON:

I oppose S.B. 65. I served as a member of the NEITF. I agree with the first part of this bill that expands the IRP planning, but I have a problem with the second part of the bill. Before I get into the bill, however, I want to set the record straight. Nevada is fifth in the nation in solar production. We currently have either under contract or under construction or in use over 1,000 MW of solar resources. Not too many states can claim that.

My problem with the bill is something I stated time and time again as a member of the NEITF. What is the net effect of this change on the individual ratepayer? Changing "shall" to "may" is not a little deal. It is one simple word, but it is a big deal that forces the PUCN to consider and give preference to the considerations in section 6, subsection 5 of the bill. Economic and environmental concerns do not always jibe. Recently, the PUCN had a ruling on net metering that said ratepayers with solar panels could only get in return a value equal to the price NV Energy charged other ratepayers. The reason they did that was renters, people with bad roofs and poor people could not install solar panels, and it was not fair to have them subsidize the people who could afford them.

The change in section 6, subsection 5 is a dangerous one because we do not know what it means. The first solar set aside in the portfolio was in a bill I requested. I have worked from the beginning on the portfolio standard, and we now have a standard stating we must have 25 percent by 2025, and we are

well on the way. But we must maintain a balance with the environment and the ratepayer. The PUCN's job is to balance reliability and rates and to ensure we have a strong and reliable provider. That was challenged in the early 1980s when, by the initiative process, the consumer advocate was created because there were those who felt the ratepayer was not getting a fair shake.

My ongoing concern is what this change is going to do to the average ratepayer. The ratepayer's bottom line affects the price of food because ranchers and farmers pay those rates to pump water for irrigation. The Legislature has done a lot with the portfolio standard to maintain balance. This matter has been left to the discretion of the PUCN in order to maintain that balance. This one word change will change that balance. That is my concern with this bill. I agree with the rest of it.

SENATOR SETTELMAYER:

I appreciate the "may" to "shall" distinction. It is amazing what effect changing one word can have. If you raise the cost of power by 10 percent, what does that do to agriculture? I pay power bills of \$3,000 to \$4,000 a month on my ranch.

I am going to muddy the water on a whole different aspect. Section 6, subsection 5, paragraph (d) of the bill requires that preference be given to measures that "[p]rovide the greatest opportunity for the creation of new jobs in this State." That is great, but I worry about what it will do to existing jobs. What about the number of people working in the industry? If we go from "may" to "shall," we have to look at that aspect and worry not only about the creation of new jobs but about existing jobs that might be lost.

MR. THOMPSON:

That is exactly my point. Our economic condition, while we are recovering, is still fragile. There is still 40 to 60 percent unemployment in Clark County in the building trades. It is not just about the ratepayer as an individual, but the ratepayer as a possible business owner who employs people. I do not know the answer to my question, which is why I do not support this bill.

CHAIR SPEARMAN:

We have moved into an area that is not covered by S.B. 65. According to Ms. Stokey, NV Energy is already doing the things listed in this bill, so we are

not talking about a big change. I asked about the wording in section 1 of the bill because I wanted to make sure we are continuing with a level playing field. The bill does not apply to just one utility; it applies to any other company that enters the arena and is regulated by the PUCN. If NV Energy is already doing this, keeping the word "may" means anyone else who comes along is not required to do this, unlike the incumbent utility that is already doing it. That presents an uneven playing field. Having the word "shall" protects the incumbent utility because it means whoever comes after them will have to do the same thing.

MR. THOMPSON:

They may be doing these things now, and that is well and good. However, economic and environmental benefits do not always add up, and mandating that they must do those things is a significant change. What does this change do to Joe Sixpack who lives in an apartment and does not give a hoot about any of this because all he cares about is his bar bill when it comes in? What he cares about is the impact on his ability to pay his other bills.

My concern is not with NV Energy, which has gone out of its way to create jobs and use Nevada workers more than any other company. NV Energy has made great strides, both to meet the portfolio standard and to hire Nevada workers. My concern is with the PUCN, which will be giving the preference and making the determination going forward.

CHAIR SPEARMAN:

Ms. Dykema, could you verify that under this bill, anyone coming in after NV Energy will have to follow the same rules as NV Energy?

MS. DYKEMA:

Yes. The intent of the bill is that each utility regulated by the PUCN would be subject to this. Regarding the word "each" in section 1, the intent, as discussed at the NEITF level, was that it apply to the current utility and any utility that comes to the State.

CHAIR SPEARMAN:

If that is an issue, perhaps you can work with the sponsor of the bill and tighten the language so it is very clear.

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With respect to the PUCN being the ones that would make the determination, I would like a legal opinion from counsel regarding the impact of the language in this bill, "each" versus "the" and "shall" versus "may."

BRYAN FERNLEY (Counsel):

The word "each" in section 1 of the bill would apply to any utility that supplies electricity and that is regulated by the PUCN, current utilities and all future utilities. The word "shall" in section 6 of the bill would apply to any future action of the PUCN or any utility that is filing an IRP.

SENATOR SETTELMAYER:

Thank you for that clarification.

What I am looking at is currently there is only one energy provider in Nevada. We are changing the word to "each" because looking at the way deregulation passed on the ballot last time, it is very likely it is going to pass the next time. The current energy provider may decide to go into distribution and no longer deal with energy generation. That is what I am looking at. The current provider was trying to look at all the variables and add them together with the word "may."

I am not worried about "shall" in section 1 of the bill; I am only worried about "shall" in section 6. Paragraph (d) refers to new job creation. I hope they would be able to look at the totality at all jobs in Nevada, both new and existing. If you look at a parabolic mirror facility, you have 1.5 full-time jobs at that plant generating electricity, and all they are doing is going around washing off the lenses. Other types of facilities may employ 40 to 60 people with good union jobs with benefits. The word "may" allows the PUCN to consider all factors. With the word "shall," I am fearful that it may be too focused on one concept rather than looking at everything.

CHAIR SPEARMAN:

The way I read it, the word "shall" means they will do exactly what you said and look at all factors as a conglomeration and comprehensively. The word "may" would allow them to choose one factor out of the five factors and focus only on that. I see the word "shall" as preventing the situation you fear. It means every time they look at it, they have to look at and consider all those factors. It is not an either-or situation.

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SENATOR SETTELMAYER:

I appreciate that. It will be interesting to see what happens when these factors are in conflict with one another. We may need to discuss adding a paragraph (f) to subsection 5 of section 6 to include looking at battery backups of the energy company so we can provide even, consistent power curves rather than just depending on its renewable aspect.

I am still concerned that if we go to "shall" in section 6, it creates a situation that requires more than just (a) through (e) to make sure one aspect does not get forgotten that could detrimentally affect the State.

CHAIR SPEARMAN:

I share that concern. We will get a legal opinion from counsel as to the legislative intent, so we keep everybody on track.

SENATOR SETTELMAYER:

I understand. I think we need to add more factors. If we are going that way, there is more to be added so there is better clarification of what is going on.

FRED VOLTZ:

I am opposed to S.B. 65.

As a business owner, when I buy something, I want to know the price before I buy it. My concern with all the energy bills that are coming before the Legislature this Session is that no one has put pencil to paper and come up with the total cost of going 100 percent renewable, which seems to be the direction the State wants to move in, per Governor Sandoval and the Governor's Office of Energy. I would like to propose that the Governor's Office of Energy come up with some sort of calculation, based on what we know today, about the costs of renewable energy and the fact that we will still have to have some sort of fossil fuel as a backup. What, in totality, will this cost ratepayers? That seems a reasonable expectation. You can have all the strategic plans in the world, but if you do not know how much they will cost to implement, that is a big problem.

Second, there is the problem of the societal test versus the utility cost. Both environmental and improved health-care benefits, which are part of that societal test, are intangible metrics to accurately represent. That is, it is hard to put a substantial number to those benefits. If this bill advances to the full Committee,

interested persons, as defined in section 6, subsection 3 of S.B. 65, should be able to ask questions and receive answers regarding any of the plans submitted and also be able to see the questions and answers from the participating parties unless there is something compelling that would require confidentiality.

With regard to Mr. Thompson's comments, a key component of equitable cost—not value, but cost—is whether a large swath of Nevadans can afford electricity, as many already struggle to cover current rates, per testimony a few days ago about Assembly Bill (A.B.) 223.

ASSEMBLY BILL 223: Revises provisions relating to energy efficiency programs.
(BDR 58-660)

We were hearing stories from Las Vegas about people who were faced with monthly power bills of \$300 or more, and they were struggling to pay those. If implementing the master plan of 100 percent renewable energy in Nevada results in an increase in cost, that could be a real hardship on these folks.

Finally, Senator Settlemeyer mentioned Germany, and the example we have there is a cautionary tale for Nevada and how we might proceed on any renewable energy. In 2005, Germany chose to make a concentrated effort toward renewable energy. What they found is that the rates have spiked for both residential and business customers. I do not have an exact number, but I seem to remember something on the order of 50 percent. Germany has subsequently backed away from its focus on renewable energy. One of the negatives from the environmental standpoint is that many people have gone to biomass, which is to say wood. They have a much higher level of smoke in the environment because people are burning wood to stay warm rather than using electricity to save on their electric bills.

SENATOR FARLEY:

We are not the first state to pass a bill with mandates like this. I am looking on the Internet to find out where all these bad things happened after a change like this was done, and I am not finding any. Every time we make a change, we think about the worst case scenarios, the disasters that may happen as a consequence. But are they really likely to happen? Are we not asking the PUCN to take care to make sure the disasters do not happen? That is how I read this

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bill. Are you predicting that Nevada is going to fall off a cliff if we continue to move down the path this bill suggests?

MR. VOLTZ:

No. I am suggesting that if we have a strategic plan about where we want to go, we need to know how much it is going to cost ratepayers in order to make a judgment about whether that is something we want to do. That is independent of the PUCN.

With regard to disasters, we can look to California. They have been aggressive in renewable energy plans and want to move to 40 percent and ultimately 100 percent renewables. The problem they have found is that they cannot use all the renewable energy they are generating. They are therefore selling it to Nevada at a lower price than it costs to produce. This is good for Nevada, but not for the ratepayers in California.

SENATOR FARLEY:

The PUCN would use that and other bad outcomes and apply that education in its decision-making so we do not have the same issue. I do not feel we are reinventing the wheel, and we have the opportunity to learn from those who went before us. I am having a hard time seeing all the bad that will come from a bill laying out the things the PUCN has to balance as it makes decisions in the future. At the same time, I do not want my rates to go up either. I do not want people to lose jobs. I am hoping this bill prescribes the right measures. Perhaps we need to add something to say they should make good decisions and learn from those who have not.

CHAIR SPEARMAN:

You indicated that there had not been any studies showing the cost or health impacts of nonrenewable energy. In a quick check on the Internet, I came across the policy statement of the Union of Concerned Scientists. The section titled "Improved Public Health and Environmental Quality" states:

Generating electricity from renewable energy rather than fossil fuels offers significant public health benefits. The air and water pollution emitted by coal and natural gas plants is linked to breathing problems, neurological damage, heart attacks, and cancer. Replacing fossil fuels with renewable energy has been

found to reduce premature mortality and lost workdays, and it reduces overall health care costs. The aggregate national economic impact associated with these health impacts of fossil fuels is between \$361.7 [billion] and \$886.5 billion, or between 2.5 percent and 6 percent of our gross domestic product.

There are several studies on record with similar findings.

MR. VOLTZ:

We need information specific to Nevada. That may be one dimension of it; I do not know the mechanics of the study or how they made those valuations. We need to look at the actual, hard-dollar costs independent of those fungible values that are hard to put a price tag on. We need to put a dollar amount on the increase in the average ratepayer's power bill before we know whether this bill is viable or prudent. We are trying to make public policy without having all the facts in front of us.

CHAIR SPEARMAN:

I agree with Senator Farley that I do not know that this bill is making a big change other than setting the stage. The study I just read from was the "Special Report on Renewable Energy Sources and Climate Change Mitigation" prepared by Working Group III of the Intergovernmental Panel on Climate Change, and that included Switzerland, the United Kingdom, the U.S. and several other countries. The report is not talking about something that is narrowly focused. This study is not biased one way or the other. It is simply academicians getting together and trying to put together a model by which to predict outcomes. I am not sure we could come up with any legislation that would provide the level of specificity necessary to erase all the doubts, consternations and fears. What we have to do is put forth a good effort that says if we are going to go in this direction, here are some of the parameters. If we give the PUCN parameters and they need to change, we come back and change them. But I do not know that anyone can come up with a predictive model that has the level of clairvoyance that will tell us exactly what needs to happen.

MR. VOLTZ:

I would not say clairvoyance is necessary. Based on what we know about costs and the limitations of science, that is what we need to work with and come up with an educated guess about what the impact is going to be.

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CHAIR SPEARMAN:
We can do that.

MS. DYKEMA:
I would like to echo the Chair's comment that the intent of S.B. 65 is to strike a balance, look at all of the values set forth in section 6 and diversify our portfolio.

CHAIR SPEARMAN:
I will close the hearing on S.B. 65 and open the hearing on S.B. 150.

SENATE BILL 150: Revises provisions related to energy efficiency programs.
(BDR 58-568)

SENATOR PAT SPEARMAN (Senatorial District No. 1):
As many of you know, energy efficiency is using less energy to provide the same service. Energy efficiency is not energy conservation, which is reducing or going without service to save energy. I will give you an example. When you replace a single-pane window in your house with an energy-efficient window, the new window prevents heat from escaping in the winter. You save energy by using your furnace or heater less while staying comfortable. Likewise, in the summer, efficient windows keep the heat out so the air conditioner does not run as often and saves electricity.

Currently, electric utilities in Nevada have implemented several energy efficiency programs for retail customers. However, low-income customers are often not able to take advantage of these programs because they pay a much higher percentage of their available income on energy bills and other necessary goods.

As a member of the NEITF, I learned the PUCN uses a total resource cost test to individually evaluate energy efficiency programs. However, testimony indicated using a utility cost test would enable more programs for low-income utility customers.

MR. DAVIS:
It is important to take a step back and think about why we have energy efficiency programs. As we heard in the previous bill, NV Energy goes through the IRP process to determine how they are going to get the energy to meet

future load and increases in energy demand. There are two ways to do this: you can increase supply or reduce demand. Energy efficiency is a way of reducing demand so you do not need as much supply. This is generally the cheaper route. It is cheaper not to have to produce the energy in the first place than to go through the process of producing energy and getting it to consumers' homes. The IRP uses a combination of both. That is why we have energy efficiency programs now, because they are a part of meeting the demand for power.

NV Energy is a regulated monopoly that is also a business with shareholders who are authorized to receive a specific rate of return. This bill operates within that paradigm. We need to figure out a way in which this makes financial sense for everyone.

You will see the term "cost effective" used in this legislation. Essentially, we compare the cost of producing more energy to the savings of helping people use less energy. We look at the cost of the energy efficiency program versus how much it costs to build a new power plant or buy power on the open market. In this context, the cheaper option is the cost effective one. Senate Bill 150 creates a financial incentive to encourage NV Energy and any future electricity providers to maximize energy efficiency opportunities.

I will go through the bill. Sections 2 through 8 are definitions for terminology used in the bill. They define terms like energy efficiency program, energy savings and utility cost test.

Section 9 includes the intent of the Legislature as it relates to energy efficiency.

Section 10 contains the main provisions of the bill. Subsection 1 sets out energy efficiency savings goals for 2018 through 2025. For 2018, the goal is 1 percent of retail electricity sales in the base year, which is 2016. It goes up from there, so that the goal in 2025 is 1.5 percent. This is the amount of electricity each utility must try to save year by year.

Subsections 2 and 3 of section 10 give the PUCN the authority to set larger goals if certain criteria are met.

Subsection 6 of section 10 requires that the PUCN approve a plan if it meets the cost effectiveness test. It also specifies that the PUCN should be using the utility cost test.

Subsection 7 of section 10 requires that 5 percent of the plan be directed to low-income customers. Everyone pays into the energy efficiency program, and this provision ensures everyone has the opportunity to benefit.

Subsection 8 of section 10 allows for carry-forward savings. If a utility saves more than the goal in a given year, they can carry it over and use it in the next year.

It is important to remember that these are only goals. There is no penalty for not meeting these goals, but there is a benefit to meeting them, which is laid out in section 11 of S.B. 150. These incentives are based on how much energy is saved. The bill is not a mandate; rather, it lays out goals and provides incentives for reaching those goals.

Section 11, subsection 2 of the bill gives the specifics of the incentive program. These incentives are recovery of a percentage of the utility's total expenditure on energy efficiency programs for each year. If the utility reaches its goal for a given year, it will receive 5 percent of its total expenditure for the year, and the amounts go up depending on how far beyond the goal it achieves. The better it does, the more incentive it receives.

Section 12 of the bill deals with the issue of decoupling. It gives the PUCN the authority to institute decoupling if they decide, through the public process, that this is in the best interests of the public. Essentially, decoupling is a mechanism we currently have in place with Southwest Gas that allows for the profit motive to be decoupled from how much energy the utility sells. It essentially makes the utility indifferent to how much energy they sell, which is another way of encouraging conservation.

We had some discussion earlier that our energy market may be changing. The natural question is how this bill would work with more than one regulated utility or multiple utilities that are not regulated in the same way. These types of policies exist in 25 states, some of which are regulated traditionally and some are not, and they also exist in competitive market states including Texas,

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Illinois, Ohio, Pennsylvania, Massachusetts and Maryland. There are different ways you can do it, but this is a policy that will work in either situation.

Finally, S.B. 150 is not a mandate. There is nothing in this bill that requires NV Energy or future utilities to achieve these goals. The bill simply sets out these goals and provides incentives for reaching them. Most likely, this will result in more energy efficiency programs being available for customers. Right now, we have very little in the way of residential energy efficiency programs. We would like to see more offered so more Nevadans have the ability to reduce their energy bills, which would allow us to avoid building more costly power plants.

KATHLEEN LAUCKNER, PH.D. (Environmental Training Program Coordinator, School of Environmental and Public Affairs, University of Nevada, Las Vegas):

I am in support of S.B. 150. I have 25 years of experience in this area. My research at the University of Nevada, Las Vegas (UNLV), stems from looking at housing rehabilitation. I am an expert in lead poisoning prevention and am part of the Healthy Homes Program with UNLV. I have worked closely with Nevada cities and counties to perform energy audits, leading to housing upgrades that in turn left those homes more energy efficient, void of lead, asbestos and pesticide hazards, and with a lasting healthy environment. All of this work was done by construction workforces. These upgrades also proved to be a cost savings for the families, leaving more of their monthly budgets for other family needs. Also, if a green bank initiative is in our future, this could further the incentives to fix our aging communities and continue with the Healthy Homes mission.

RALPH E. WILLIAMSON (Senior Pastor, First African Methodist Episcopal Church; President, Faith Organizing Alliance):

I come this afternoon in support of S.B. 150 as a pastor and a community leader. One of my specific roles is to represent individuals in low-income communities, those who are impacted by the economy, who do not have the means to make ends meet from week to week, who live on fixed incomes. Having access to energy-efficiency programs will help these struggling families lower their power bills and manage their budgets.

In my role as a community leader, I represent more than 50 churches. Often, we help people meet their financial needs, especially utility bills. The highest challenge they have is covering their rent, and the next highest is trying to

cover the cost of utilities that continually escalate. It is hard for them to manage their budgets when they are on fixed or low-incomes. These efficiency programs would be a plus to the individuals we represent in this community.

LEONARD B. JACKSON (Associate Minister, First African Methodist Episcopal Church; Director, Faith Organizing Alliance):

I support S.B. 150. I have written testimony ([Exhibit I](#)) describing the need for the provisions in this bill. This bill is critical for our community.

QUENTIN ABRAMO (Faciliteq Business Interiors):

I have been a small business owner in Las Vegas since 2005. I support S.B. 150 on behalf of small business owners. I have heard a lot about how our future economy is going to be about small business. When I look at clean energy, energy efficiency and renewable energy, I see a positive for any small business. I survived the great recession. For small businesses, the second largest expense, after personnel, are operating costs. As I consider the chance to manage those operating costs moving forward, I only see positive reinforcement in looking at some of these energy efficiency programs.

LES LAZARECK (Home Energy Connection, LLC):

As a mechanical engineer and residential building performance expert in Las Vegas for more than ten years and a member of Nevada's Energy Code Compliance Collaborative, I support S.B. 150. I support building science-based solutions that will benefit home owners by lowering their energy consumption while improving their comfort, health and safety. My wife and I, through practicing the building sciences, have reduced our energy load and have not had any electric payments for over seven years. I have conducted over 400 whole-home energy audits on existing homes that have included a gamut of age, size and household income. In addition, I have conducted hundreds of high-bill-complaint energy audits for NV Energy in the last three years. It is clear that this bill only has pluses and positives.

I recommend some type of caveat that would provide incentives for the owners of apartment complexes. Many apartment buildings that have lower-income residents are suffering in this environment, and we have not seen an incentive for owners of apartment complexes to reduce their energy use. I have met many people who live in such complexes and who spend more than half as much as their rent on their electric bills.

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In addition to what Dr. Lauckner mentioned, there is a national Healthy Homes program that is gaining traction. Kevin Kennedy, the managing director of Children's Mercy Hospital in Kansas City, Missouri, has data showing that energy efficiency measures such as air sealing have reduced sick days of students, reduced parents missing work, and saved money in medical expenses and reduced hospital visits. I can provide data that clearly demonstrate the energy efficiency payback of many measures, especially when they are bundled together. Lower-income households often benefit more significantly because the greater percent of their income goes to their gas, electric and water bills.

ANGELICA ROMERO:

I am here to urge you to move forward on S.B. 150. I have written testimony ([Exhibit J](#)) explaining the importance of energy efficiency programs to my family.

VICTORIA RUIZ:

I am a student at the College of Southern Nevada and am here to urge you to move forward in favor of S.B. 150. I live on the east side of Las Vegas, and having the options of energy efficiency is important to me, my family and other low-income families in Nevada. I have seen my family struggle with high energy rates, especially during the hot summer days. Having access to energy efficiency programs will allow my family and families like mine to save money, which will allow us to invest in other things that will boost our economy and Nevada's too.

MR. HARDY:

I am here today representing the Natural Resources Defense Council. We are a national organization that uses law, research and empirical data to encourage energy efficiency. We are in full support of this legislation.

When I was a Nevada State Senator, one of my mentors was Senator Randolph Townsend, who is one of the fathers of Nevada's energy programs. One of the things we saw years ago was that NV Energy was a leader in the Nation on energy efficiency programs. They were saving an average of 1.5 percent of their portfolio, which was phenomenal at the time. We have slipped since then, through no fault of theirs but because of the economic downturn. This bill is an opportunity for us to get back on track.

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For me as a former Republican Senator, it is the right thing to do. In Nevada, it has become an economic development issue. We have this aspiration, and the Governor has indicated his willingness to try to set this right by his agenda this Session. We have an aspiration to be one of the leaders in the Country in terms of electric vehicles, energy efficiency and green energy. In some cases, our current policies do not match that aspiration. This will help set that right.

This bill puts us back on track, and I believe it is fair to NV Energy in terms of the incentive-based program that gives them the opportunity to make financial gain by it.

JERRY HOLLIDAY (Uplift Foundation of Nevada):

I support S.B. 150. I have written testimony ([Exhibit K](#)) giving our reasons for supporting this bill.

GLENROY COLE (Las Vegas Urban League Young Professionals):

I support S.B. 150. I have written testimony ([Exhibit L](#)) describing my experiences with attempts to lower my electric bill this past year.

CHAIR SPEARMAN:

I will ask someone from NV Energy to get in touch with you. If you show them your electric bill, they will provide you with a plausible answer as to why your electric bill went up when you were using less energy.

MR. POLIKALAS:

We support S.B. 150. Thank you for the time you are spending looking at Nevada's future and how we can benefit all ratepayers, improve our economy and move the State forward.

We believe in measuring twice and cutting once. Like Ms. Stokey, we would like to continue to dialogue with various stakeholders on a couple of provisions in the bill, cleaning up some language and working with the PUCN and NV Energy on the provisions on incentives, and seeing what kind of consensus we can come up with. In general, this is a tremendous opportunity for Nevada.

When you look at the IRP process, the intent is to provide energy resources at the least cost. As Mr. Davis explained, we are putting energy efficiency against supply-side options into the scales of evaluation. This process weighs them

equally and attributes a cost to each. If we need to add in more efficiency, that is what is going to be the least cost. If the efficiency programs are too expensive, we are going to go with additional supply-side options. By definition, when we go through the IRP process, we are providing the least costly energy resource for all Nevada ratepayers.

That is the issue on the cost test that was addressed by the NEITF. We found the total resource cost test is unfair in comparison to the utility cost test, but we found some common ground in recent collaborations with a number of stakeholders. Maybe there are some other ways of achieving parity and evaluating the economic and environmental benefits of efficiency so we are back on a level playing field.

These programs are designed to help low-income Nevadans. There will not be an additional cost placed on rates as long as we are going through the IRP process. We are going to provide programs that can help weatherize homes, seal leaky ducts, and keep the expensively cooled or heated air from leaking out. There is no net disadvantage to the low-income community. It is a net positive. They are already paying into the surcharge, and they need programs to help them reduce their bills.

There was a comment earlier that no one has been doing studies for Nevada. We undertook a study a number of years ago specific to Nevada in which we found that if we implemented the available energy efficiency program in Nevada, consumers would save hundreds of millions of dollars on their energy costs on a net basis. Those numbers are available. We can save energy; we can save money; we can create jobs. That same study showed that retrofitting and upgrading our homes has the potential to create hundreds and maybe thousands of jobs as we make our buildings energy efficient. There are a number of older homes and other buildings, so there is huge opportunity there.

The study also showed multiplier effects. Once you upgrade your home and you are saving \$20 to \$50 a month on your heating and cooling costs, you have that money available to spend in your local economy. Energy efficiency means economic development.

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ERNIE ADLER (International Brotherhood of Electrical Workers, Local 1245):
We support this bill because we think it is important to achieve energy efficiency.

I want to repeat one of the comments I made in the Assembly on the hearing for A.B. 223. The bill does not define what a low-income customer is. That definition should be included; you might use the U.S. Department of Housing and Urban Development definition of 80 percent of the median income for that area. Another thing that concerns me about distributing this money to low-income customers is that you use the term low-income customers. Typically, programs like this use the word "households" because the actual customer, the one who mails in the check for the bill, can be above median income. This language needs to be tightened up.

CHAIR SPEARMAN:

I think we can make that happen. Please give us your suggestions in writing so we have something to go on.

ANNE MACQUARIE (Toiyabe Chapter, Sierra Club):

We support S.B. 150. I have written testimony ([Exhibit M](#)) expressing our support for this bill.

TOBI TYLER:

I am here to express my strong support for S.B. 150. There is no question that conserving energy is the quintessential low-hanging fruit when it comes to energy policy to reduce carbon dioxide and methane emissions. Achieving energy conservation requires bills like this because incentives are needed for both users and providers of energy. Incentives are not free, but in the end, providing incentives for energy efficiency will be much cheaper and wiser for the planet and future generations than building more power plants. As one who put up solar panels, replaced windows and switched to LED lights, I am committed to energy efficiency. However, I know that not everyone, even if they have the will, has the means to implement energy efficiency measures without help. That is the other reason I support this bill: it will assist low-income households in saving energy. All families deserve access to energy efficiency.

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CHARLOTTE COX (Climate Parents):

I am in favor of S.B. 150 because I support energy efficiency, the more the better. About eight years ago, I rented a house in the southwest area of Reno. It was a beautiful home built in 1948. I found that in the winter I was spending \$300 a month to heat it, and I was not comfortable. I could not believe I could stand in the kitchen next to the window and feel the cold air. Luckily for me, I had a good job and I could buy a house, get an energy audit and make the upgrades. This was possible because I had the means. I am here because I support what this bill might do for renters and people on fixed incomes. It is not an energy democracy if only the rich and middle-income can afford to make these wise choices.

I am here for future generations. If we use all the energy and destroy our resources, it is not fair for the next generation.

IRIDANE SANCHEZ:

I am here in favor of S.B. 150. As a Latina from a family that has always worked really hard to get by, it is very important to me that people of all economic statuses have the options to achieve energy efficiency regardless of where they live or what their income level is. Urban and low-income communities are in desperate need of affordable clean energy. I grew up in east Las Vegas, and now I live in North Las Vegas in Senate District 1. My family used to share an apartment with three to five other people. Those who live there now are not thinking about the clean-energy options that are not currently available to them. We bought a home in 2006 and lost it in 2009 during the economic crash. We then rented for five years. During those five years, the rental properties we lived in, while meeting most of our basic needs, did not have energy-efficient options available. During a good month, my dad spent anywhere from \$130 to \$150 on our electric bill. During the summer, our bills were \$300 or more every month. While we always took good care of the property we rented, it was hard to want to invest in energy-efficient options because the home did not belong to us. Our landlord did not want to make those investments because we paid the utility bills. During those five years we spent throwing money away on needlessly high energy bills, we could have saved enough money to pay my college tuition and buy school supplies for my younger siblings, among other things. A little over a year ago, we were able to buy a second home, and we are very excited to see what energy efficiency

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options exist for our family to save money, protect the environment and reduce fossil fuel emissions.

LENA PAOLA:

I support S.B. 150. I have written testimony ([Exhibit N](#)) describing the benefits of this bill.

HOWARD WATTS III:

I support this bill. About five years ago, I was lucky enough to buy a house at the age of 24 years in the historic Huntridge neighborhood in Las Vegas. The home was built in 1955. I love the house, but the first July, the air conditioning ran nonstop without cooling the house. While I was waiting for repairs to be completed, I set about learning how I could make the house more efficient and save energy costs. I got into a program called Energy Fit Nevada and had an energy audit done, which told me I needed to improve the lighting, replace the furnace and air conditioner, increase insulation, and seal ducts and leaks. This was going to save our energy use by over 50 percent. However, the cost for the repairs was over \$17,000. Because of a combination of incentives from NV Energy, a rebate program through Energy Fit and an extremely affordable low-interest loan, we were able to make that upgrade immediately without breaking the bank. This will be paid off and we will then be getting a return on that investment in four years. I intend to stay in that house quite a while. It improved the quality of life and experience in the home, it helped the environment and it gave work to the energy auditors, the people doing the upgrade work and a pest control person because we found bugs in the attic.

I was lucky to be able to find a way to make those upgrades, but others are not in a position to do that. Whatever we can do to allow low-income families to access those programs is worth it, especially since Nevada supplies financial assistance to many of those families to pay their utility bills. If we are able to make some of those investments up front, we are saving money for low-income families, we are saving money for the government, we are boosting the economy, and at the same time making a real difference in the quality of life for those families.

TERRY GRAVES (Retail Energy Supply Association):
We are neutral on S.B. 150.

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Our concerns pertain to many of the energy bills that will be brought this Session. Our cautionary message is to be careful in passing legislation that promotes regulations that will impair free market activity. To the extent that S.B. 150 is not a mandate, we have no problem with it, and we fully understand the intent. If it were to impose a mandate, we would probably be in opposition. We appreciate that it includes a cost-benefit analysis.

I lived through the 1970s energy crisis. I learned that when you have an energy efficiency target every year, the first couple of years you pick off the low-hanging fruit, the most economically viable options. Each year after that, the cost to achieve that next level of efficiency goes up. In later years, it actually goes up geometrically. However, since this is not a mandate, if it is not cost effective, you do not have to do it. That is why we are not opposing it.

Texas has not had an IRP in the 15 years since they opened the market. An open competitive market takes care of a lot of these issues. People become more aware of their energy use, even residential users, and take measures to reduce their energy impact. That can be done voluntarily, and most residential users who improve their efficiency do so voluntarily. I do not see anything in this bill that forces people to undertake those measures, but the options are available today. Anyone can improve their efficiency.

CHAIR SPEARMAN:

Let me give you the framework on which this bill was developed. I will read from my research paper titled, "Using Sustainable Development as a Competitive Advantage Tool."

The US Army spends approximately \$1 billion on facility-related energy costs. Implementing an energy efficiency program in tandem with green construction creates opportunities for facility cost savings through energy conservation. From 2002 through 2012, new requirements to retrofit older buildings and use energy-efficient construction helped reduce energy costs within the U.S. Department of Defense (DOD). Recognizing the need for comprehensive strategic energy plan, the DOD established a Defense Operational Energy Board. The Operational Energy Board administers policies that promote energy security, promote a national energy security plan, use innovation as a way to capitalize

on renewable resources and reduce the demand and consumption through energy efficiency.

For 4.5 years, almost day and night, I looked at energy policies around the U.S. and around the world. One of the things that became apparent to me was that we can do a lot in terms of expanding our renewable energy industry, but if we do not get a handle on energy efficiency, it is all for naught. We have to contain that appetite for energy.

This bill has opportunities to benefit both suppliers and customers. I want to make that we are constantly balancing growing the industry with energy efficiency. They have to be in tandem for this to work.

MR. VOLTZ:

I am in opposition to S.B. 150.

Section 3 of the bill specifies a benefit-cost ratio of 1.0 or greater. This basically means that you are only recovering the initial investment. It does not mean there is a positive return on the investment. Most of us, if we put money in a bank and expected a rate of return, would not be too happy if we only got our principal back. Depending on the type of project being implemented with amounts being paid out for energy efficiency, that ratio should be higher than 1.0 to give benefit to whoever is putting the money forward.

Section 9, subsection 7 indicates that 5 percent of the monies will go to low-income households. The problem here is that it is unlikely, given the amount of money that will be applied, that this would pay for anything material. Mr. Watts indicated that the cost of his upgrade was \$17,000. Spreading out the money from this fund, even as much as \$500 per household, is not going to pay for material improvements. More importantly, if the person either did not have the money or was living in a rental property, how viable is it for them to come up with the extra funds to do whatever they need to do to make a material difference in their energy usage?

Assembly Bill 223 brought to light that \$55 million a year is going into this energy efficiency fund from ratepayers across the State. Five percent of that is \$2.5 million. If you allocate \$500 per household for energy efficiency projects, you can only help 5,000 low-income households in the State. We probably have

several hundred thousand folks who would fit that definition. Because we have an energy assistance program in Nevada, which is a separate line item on the bill presently, that is probably the best definition of low-income we could come up with because those folks are already receiving assistance through the Department of Health and Human Services for part, but not all, of their energy bills.

I have to observe that a cost benefit study from several years ago does not reflect current costs and circumstances. We still need the totality of costs calculated for Nevada. In the example given by Mr. Watts of his high-cost upgrade, the assistance he received to help lower those costs were all basically subsidies, whether it is a below-market interest rate on a loan, something coming from NV Energy that is funded by ratepayers, or even the federal income tax credit that one can receive for various energy efficiency programs. None of those things are ever paid back except for the low-interest loan. That has to be factored in to any sort of cost-benefit analysis.

CHAIR SPEARMAN:

This is not a silver bullet. We may not get to 100 percent renewables by 2082, but that should not deter us. The green banks would provide opportunities for low-income and seniors to get low- or no-interest loans through public-private partnerships. You are right that we can look at the line item on the bill to see the people who are in the low-income bracket. Once we do that, that would be a greater incentive because lower-income people pay a greater percentage of their income than those in higher income brackets. If they save money on their energy bills, they will have more money to spend on other things.

MR. VOLTZ:

I am also concerned that section 10, subsection 7 of S.B. 150 says " ... must provide." That is mandatory language.

CHAIR SPEARMAN:

That passage presupposes that this is something that fits into the utility's business plan. If it does not, they need not continue. The intent is to make sure we provide the same opportunities for low-income people to begin to save more proportionate to their income as people who have the money to just write a check for an upgrade. I do not want perfect to be the enemy of good. Even a

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tiny amount of money saved on electric bills could help a low-income family buy milk for the baby.

Ms. STOKEY:

We have been working with some of the industry parties on S.B. 150. We cannot support the bill as it is currently written, but we are hoping we can resolve some of the provisions we have concerns about. We are concerned about rates. We look at energy efficiency as a good thing, and we have a robust budget we put towards those programs. We just want to make sure there is a balance and we do not overdo it because that impacts rates.

One section of the bill talks about designating some of the program money towards low-income customers. We want to do that, and we supported that concept in A.B. 223. However, it does not help if we increase the total budget to help low-income folks save \$5 on their monthly bills if they have to pay \$7 a month more for all these programs. We just want to make sure we have a balance.

We appreciate the fact that the proponents put in an incentive for NV Energy to do more programs. However, since that also would impact rates, we are not supportive of the idea. We want to keep rates low. We have had success with large businesses moving to Nevada recently, and I would like to think one reason is that rates have been stable for ten years; our rates are as low as they were in 2007.

I would like to work on this with Mr. Davis and other parties on this bill and hopefully come to you with a resolution.

CHAIR SPEARMAN:

Unlike A.B. 223, S.B. 150 creates an umbrella so that any utility that wants to participate can do so, but if you do not want to participate, you do not have to.

Ms. STOKEY:

I appreciate that, and that is how I read the bill; it is not a mandate. However, we have seen in the past that goals often turn into mandates, and we are concerned about that. With the \$55 million annual budget we have for energy efficiency programs, that is between 0.7 percent and 0.8 percent, and this bill starts at 1 percent and goes up from there. That will be an increase in the

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budget of almost 50 percent, which will impact the rates we charge. We just want to make sure it does not turn into a mandate.

CHAIR SPEARMAN:

To the extent I can, I will keep it from turning into a mandate. If it turns into a mandate, we will have to have additional legislation. It was not my intent to put out another mandate. It was simply my intent to create a structure that has performance-based incentives. If you meet a goal, you receive a reward.

Ms. STOKEY:

I understand that. I would not want the incentive to be added to the cost of the program, which would make it even less cost-effective.

CHAIR SPEARMAN:

I will close the hearing on S.B. 150.

All of our meetings may not be this long, but one of the things Chair Atkinson asked me to do with this Subcommittee was to thoroughly vet the energy bills that come to the full Committee. We would not have been able to go into these bills in such depth in a full Committee meeting. I want us to leave this Session with a comprehensive energy strategy that includes all of the possible renewable energy resources. We need legislation that gives us an infrastructure for integrated systems that give us the type of redundancy we need so it can mitigate or eliminate concerns about volatility.

I have received additional testimony from a number of people who were not able to be here today. We have written testimony from Roxann McCoy, NAACP ([Exhibit O](#)), Joanne Leovy, MD ([Exhibit P](#)), Alexa ([Exhibit Q](#)), Ned Dodds ([Exhibit R](#)) and the National Electrical Manufacturers Association ([Exhibit S](#)), all of whom support S.B. 150.

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CHAIR SPEARMAN:

Is there any further public comment? Hearing none, I will adjourn the meeting at 4:09 p.m.

RESPECTFULLY SUBMITTED:

Lynn Hendricks,
Committee Secretary

APPROVED BY:

Senator Pat Spearman, Chair

DATE: _____

EXHIBIT SUMMARY				
Bill	Exhibit / # of pages		Witness / Entity	Description
	A	1		Agenda
	B	9		Attendance Roster
S.B. 65	C	2	Angela M. Dykema / Governor's Office of Energy	Presentation
S.B. 65	D	5	Robert Johnston / Western Resource Advocates	Presentation
S.B. 65	E	1	Jarrett Clark / Clean Energy Project	Written Testimony
S.B. 65	F	1	Larry Fosgate	Written Testimony
S.B. 65	G	1	Jacob Parrill	Written Testimony
S.B. 65	H	2	Ray Bacon / Nevada Manufacturers Association	Follow-up Letter
S.B. 150	I	2	Leonard Jackson / Faith Organizing Alliance	Written Testimony
S.B. 150	J	1	Angelica Romero	Written Testimony
S.B. 150	K	1	Jerry Holliday / Uplift Foundation	Written Testimony
S.B. 150	L	1	Glenroy Cole	Written Testimony
S.B. 150	M	1	Anne Macquarie / Sierra Club	Written Testimony
S.B. 150	N	1	Lena Paola	Written Testimony
S.B. 150	O	2	Roxann McCoy / NAACP	Written Testimony
S.B. 150	P	1	Joanne Leovy, MD	Written Testimony
S.B. 150	Q	1	Alexa	Written Testimony
S.B. 150	R	9	Ned Dodds	Written Testimony
S.B. 150	S	2	National Electrical Manufacturers Association	Written Testimony