# MINUTES OF THE
# SENATE COMMITTEE ON ENERGY, INFRASTRUCTURE AND TRANSPORTATION

## Seventy-fifth Session
## May 5, 2009

The Senate Committee on Energy, Infrastructure and Transportation was called to order by Chair Michael A. Schneider at 8:17 a.m. on Tuesday, May 5, 2009, in Room 2135 of the Legislative Building, Carson City, Nevada. The meeting was videoconferenced to the Grant Sawyer State Office Building, Room 4412, 555 East Washington Avenue, Las Vegas, Nevada. Exhibit A is the Agenda. Exhibit B is the Attendance Roster. All exhibits are available and on file in the Research Library of the Legislative Counsel Bureau.

**COMMITTEE MEMBERS PRESENT:**

Senator Michael A. Schneider, Chair
Senator Maggie Carlton, Vice Chair
Senator John J. Lee
Senator Shirley A. Breeden
Senator Randolph Townsend
Senator Barbara K. Cegavske
Senator Dennis Nolan

**GUEST LEGISLATORS PRESENT:**

Senator Steven A. Horsford, Clark County Senatorial District. No. 4

**STAFF MEMBERS PRESENT:**

Matt Nichols, Committee Counsel
Scott Young, Committee Policy Analyst
Patricia Devereux, Committee Secretary

**OTHERS PRESENT:**

Jo Ann P. Kelly, Chair, Public Utilities Commission of Nevada
Rebecca D. Wagner, Commissioner, Public Utilities Commission of Nevada
Samuel Allen Thompson, Commissioner, Public Utilities Commission of Nevada
Lisa Corrado, LEED AP, Redevelopment Project Manager, Community Development, City of Henderson

Pete Ernaut, NV Energy, Inc.
Judy Stokey, Director, Governmental Affairs, NV Energy, Inc.
Fred Schmidt, Holland & Hart, LLP
Bob Goff, Co-founder and Vice Chair, Nevada Institute for Renewable Energy Commercialization
Hatice Gecol, Ph.D., Director, Office of Energy, Office of the Governor
Nick Vander Poel, Deputy Director, Office of Energy, Office of the Governor
Pete Konesky, Staff Engineer, Office of Energy, Office of the Governor
Lorayn Walser, Management Analyst, Office of Energy, Office of the Governor
Suzanne Johnson
Charles Benjamin, Director, Nevada Office of Western Resource Advocates
Greg Bortolin, Desert Research Institute
Jeff Fontaine, Executive Director, Nevada Association of Counties
Norman Frey, Commissioner, Churchill County
Jerrie C. Tipton, Vice Chair, Mineral County Board of Commissioners
Robert Tretiak, Ph.D., International Energy Conservation

CHAIR SCHNEIDER:
I have given the Committee a summarization of State agencies' electrical energy-consumption rates, as requested by Senator Townsend, from Cindy Edwards, Administrator, Division of Buildings and Grounds (Exhibit C). Energy usage in State-owned buildings for fiscal year (FY) 2008 was more than 253 million kilowatt-hours at a cost of more than $25 million. This does not include buildings rented by the State. This information drives home how important energy efficiency, sustainable building practices and renewable-energy systems are to Nevada, and how important S.B. 358 is for our energy policy.

I heard on National Public Radio this morning that German citizens receive a $3,000 bonus for trading in their old cars for high gas-mileage vehicles.

We will open the hearing on Senate Bill (S.B.) 358.

**SENATE BILL 358 (1st Reprint)**: Revises provisions related to energy. (BDR 58-1146)

Senator Horsford will present his proposed amendment 4711 of S.B. 358 (Exhibit D, original is on file in the Research Library). Committee Counsel Nichols has highlighted a new portion of the proposed amendment in yellow and prepared a detailed explanation of the changes (Exhibit E).

SENATOR STEVEN A. HORSFORD (Clark County Senatorial District. No. 4):
The proposed amendments to S.B. 358 are technical and based on discussions held last week. Section 1.19 adds to the State and Local Government Panel on Renewable and Efficient Energy a sixth member, who must be a representative of the Nevada League of Cities and Municipalities. Section 1.27 adds to the New Energy Industry Task Force a seventh member, who must be a representative of a State organization interested in environmental or public-lands issues.

Subsection 5 of section 1.45 requires the proposed Nevada Energy Commissioner to assist renewable-energy developers in working with the U.S. Department of Defense in developing projects on public lands. Subsection 6 of section 1.45 replaces references to the Desert Research Institute with those to the Nevada System of Higher Education (NSHE). Subsection 2 of section 1.47 requires the comprehensive State energy plan to contain provisions for the promotion of renewable-energy education in Grades kindergarten through 12 and of research and education programs in renewables in the NSHE.

Subsection 3 of section 1.67 defines "distributive generation (DG) system" as a facility or system for the generation of electricity that uses renewables to generate electricity that is on a private utility customer's property, is not owned by the utility and the output from which is ordinarily consumed locally without entering the utility's transmission grid. Section 1.69 replaces the State Contractors' Board with the Renewable Energy and Energy Efficiency Authority.

Subsection 1 of section 1.75 expands the partial tax abatement imposed pursuant to *Nevada Revised Statutes* (NRS) 361 to a person who constructs an electrical renewable-energy generation, a facility for the production of an energy-storage device or a facility for the production of eligible renewables equipment in the State. Subsection 2 of section 1.75 expands the definition of "eligible renewable energy equipment" to include machinery or equipment used to collect or process heat. Subsection 2 of section 1.75 defines "process heat" as thermal energy transferred to air or a liquid. Subsection 1 of section 1.77 expands the abatement of local sales-and-use taxes to include a person who constructs a facility to generate electricity from renewables and defines "process heat."

Subsection 9 of section 11.5 revises NRS 704.021 to be consistent with language in the first reprint of Assembly Bill (A.B.) 186. Section 12.5, which increased the net-metering capacity from 1 megawatt (MW) to 3 MW, has been removed.

**ASSEMBLY BILL 186 (1st Reprint):** Revises the definition of "public utility" and "utility." (BDR 58-169)

Subsection 2 of section 13.3 requires for 2010 that at least 0.1 percent of energy a utility is required to generate, acquire or save from renewable-portfolio standard (RPS) systems or efficiency measures must be generated or acquired from DG systems not used to satisfy the RPS in any other year. Subsection 9 of section 13 defines "distributed generation system." Subsection 1 of section 19.35 expands the local sales-and-use tax abatement imposed on businesses to include a person who constructs a renewables facility to produce electricity. Subsection 12 of section 19.35 adds definitions to that effect.

Subsection 1 of section 19.4 expands the sales-and-use tax abatement to a person who constructs a renewables facility to generate electricity and adds definitions to that effect. Subsection 1 of section 19.55 requires the NSHE to serve as a resource to establish a mechanism to transfer technology to the marketplace, including grants; and provide information to the Renewable Energy and Energy Efficiency Authority.

We understand that the larger policy discussions on the RPS, DG carve-out, structure and authority of the Public Utilities Commission of Nevada (PUCN) and the tax abatements are still under discussion by the Committee.

SENATOR CEGAVSKE:
I do not see waste energy included in the proposed amendment. In section 1.27, the biomass industry or any other chambers of commerce are also not included. Have these been discussed?

SENATOR HORSFORD:
No, these amendments are considered technical. Some of the substantive suggestions Committee members made are still being considered. We have a list of all of the questions from the last hearing on S.B. 358 and are preparing written responses, which you will get this week.

SENATOR CEGAVSKE:
Will that include the cost to ratepayers of implementing this legislation?

SENATOR HORSFORD:
Part of the information on the direct cost was shared, and representatives from the solar industry will provide further information. Indirect costs must also be factored into the policy discussion, and, to the extent those studies can be acquired, representatives from the renewables arena are gathering information on how to apply them to the proposed Nevada model.

SENATOR CEGAVSKE:
Will that include costs from other bills we have already passed and what is coming over to this Committee?

SENATOR HORSFORD:
I do not know.

SENATOR LEE:
In several places, section 1.75 of the proposed amendment reads, "A person who intends to construct, locate or expand a facility for the generation of renewable energy ... ." There are certain times when companies are big enough that they want to build a solar plant, but need redundant power to operate so they may have to build a substation. If so, and they try to make the primary power source renewable, a blend of power exists. Can you find someone to discuss the implications of that with us?

SENATOR HORSFORD:
We will follow up on that request. We will have a more extensive discussion of DG and decoupling at the May 7 Committee meeting.

CHAIR SCHNEIDER:
Will you come back on that day to discuss DG?

SENATOR HORSFORD:
Yes, in conjunction with NV Energy, Inc. and other shareholders.

SENATOR CARLTON:
I interpret the definition of DG as including biomass. Was that your intention?

SENATOR HORSFORD:
I will review that and come back with a clarification before the next hearing.

SENATOR CARLTON:
I hope the definition does include biomass, if read broadly enough.

CHAIR SCHNEIDER:
Mr. Nichols, do you have a clarification on that?

MATT NICHOLS (Committee Counsel):
> I think what we are looking at is "renewable energy" as defined in [NRS] 704.7811, which is not included in the bill, but it's referenced in that definition of distributive generation. And that includes biomass, geothermal, solar, waterpower and wind. It's the standard definition of renewable energy that's used in NRS.

JO ANN P. KELLY (Chair, Public Utilities Commission of Nevada):
My colleagues in Las Vegas and I are here to discuss the sections of the proposed amendment dealing with the dissolution of the Nevada State Office of Energy (NSOE) and the plan to put it under the jurisdiction of the PUCN. We will speak personally on the matter; we have not taken a vote on an official position. I am opposed to the dissolution of the NSOE because incompatible functions would be put together in one office.

REBECCA D. WAGNER (Commissioner, Public Utilities Commission of Nevada):
It is difficult for me to oppose what appears to be a good idea, but it is a mistake to blend a regulatory body with an advocacy body. In my experience as a PUCN Commissioner and Director of the NSOE, this is problematic. There are many things that may appear to be consistent between the two agencies but are not really.

I have heard terms like "one-stop shopping" and "duplicative effort." In terms of the former, the PUCN does not have much oversight over the renewables industry. The only true oversight it has is through the Utility Environmental Protection Act process. If Governor Jim Gibbons' bill passes, that oversight will be largely ended by eliminating the need for an environmental review of projects under 70 MW.

The other renewables elements PUCN oversees are contract approval, a utility process through resource planning; and the RPS, which is just ensuring that utilities comply with the law. We have a very tenuous direct relationship with renewables developers.

As far as duplication of effort, in my experience in both positions, I have seen very little—if any—duplication of effort and expertise. Sometimes the two agencies can share expertise, like with the Governor's Renewable Energy Transmission Advisory Committee, on which a PUCN economist, engineer and I offer technical advice. However, that is an exception, not the rule.

I am afraid that in order to prevent what is perceived as a duplication of effort, this will create a conflict of interest with the new agency's structure, which is an advocacy body and regulatory body sharing staff. These employees would be inherently conflicted in proceedings in which renewables may not be in the best interest of utility ratepayers or shareholders. I do not know how to blend the agencies without creating a conflict of interest and ultimately duplicating efforts by creating a "Great Wall of China" so we do not have a conflict. That would result in an even greater cost to ratepayers because the PUCN would have to raise its mill assessment to hire the necessary staff.

The Office of the Governor is the most appropriate place for the NSOE. Access to the Governor's cabinet and entities like the Western Governors' Association are priceless. The PUCN is most often working on regional effort through the Western Governors' Association, and other states' energy offices are moving toward Nevada's type of structure. I will not touch on the fiscal note for this plan because we cannot yet even put our arms around that. It will have a significant impact on our mill assessment.

SAMUEL ALLEN THOMPSON (Commissioner, Public Utilities Commission of Nevada): I was a member of the Energy Policy Working Group, from which the proposed S.B. 358 amendments emanated. I feel duty bound to explain my opposition to combining the two agencies according to one narrow field. I spent most of my career as an attorney, judge and hearing officer, and my PUCN duties are similar to the ones in those positions.

I am concerned about blending a regulatory body with a policy-advocacy body, which the NSOE would become as a permutation of an authority. By statute, the PUCN balances the interests of utility ratepayers and shareholders, while the

NSOE advocates special policy objectives. The PUCN is a regulatory body, while the purpose of the NSOE is to create policy and function as an advisor to the Office of the Governor. The two offices are incompatible, with entirely different missions.

From a legal standpoint, there is a serious, inherent conflict of interest. The NSOE is represented by the Office of the Attorney General. The Bureau of Consumer Protection, as a part of the Office of the Attorney General, is, as a matter of statutory right, an intervener in all of the PUCN's proceedings. As a consequence, the PUCN has established an in-house general counsel staff to advise the Commission and represent it before public courts, such as the federal Ninth Circuit Court of Appeals, with regard to the Federal Energy Regulatory Commission or things of that nature. This procedure was established to avoid any perceived or real conflicts of interest with regard to representation by the Attorney General of the PUCN, when the Attorney General is an intervener as a matter of right in PUCN cases.

The problem is the PUCN's general counsel would not be able also to represent the new authority. The new authority would have to be represented by its own in-house counsel or a contracted outside counsel wherein matters came before the PUCN. There are a number of sections in this bill that would require the new authority to make presentations and recommendations and bring petitions before the PUCN. There is an inherent conflict here, with additional costs associated needed to resolve that conflict.

Another conflict involves the federal economic-stimulus funds. The NSOE would be potentially distributing grant money to entities regulated or potentially regulated by the PUCN. It would be difficult, if not impossible, for the PUCN legal staff to represent both the NSOE and the PUCN in that type of matter.

Additionally, stimulus funds have already been appropriated to each state, and State Energy Program grants have been the funding mechanism for the NSOE for more than 30 years. I am concerned that a change now at the federal level could cause chaos in the distribution of the stimulus funds. To paraphrase Robert Browning, "A man's reach should exceed his grasp," but I am concerned unintended consequences of this bill and the proposed amendment will dampen the effectiveness of both agencies.

CHAIR SCHNEIDER:
We have a proposed amendment to S.B. 358 drafted by Renny Ashleman for the City of Henderson (Exhibit F). I do not think the Committee has any problems with it. Mr. Nichols will produce a clean mock-up of the amendment and incorporate it into the final bill.

MR. NICHOLS:
> As I understand Mr. Ashleman's amendment ... would essentially restore sections 14, 15, 16, 17 and 18 as they were in the original version of the bill? So, [I] just wanted to let the Committee know it's not new language; it's taking the bill back to its original form for the purposes of the ... amendments to chapter 271 of NRS.

LISA CORRADO, LEED AP (Redevelopment Project Manager, Community Development, City of Henderson):
As Mr. Nichols explained, our amendment just added renewable energy to the list in the original bill of projects eligible for special-assessment bond districts. We are reverting to that language. We also addressed a concern by NV Energy to make sure the renewable energy generated is used on the project site. An energy-efficiency improvement was added, as suggested by another stakeholder. We reverted to that convention, just adding it to the list of projects eligible for special-assessment bond districts.

CHAIR SCHNEIDER:
A developer would not produce and sell energy, right? Is this just energy used on-site?

MS. CORRADO:
Yes.

SENATOR LEE:
Why was this provision removed since we are now putting it back in? Is this a friendly amendment to the bill and its sponsor? I need some history.

MS. CORRADO:
I am not sure what the bill's first reprint says and from where it came. It focused on residential property, and we wanted to make it more flexible for different users. That was acceptable in the original bill, but NV Energy had concerns about generating and selling power. Rather than clarifying the

residential-property issue, we just adjusted the definition of "renewable-energy project" to make sure the power would be sold on-site. It says the equipment for renewable energy would be used for "electricity at the premises where the project is located." That was the compromise, rather than changing how these entire projects would be done. We wanted it to operate similarly to other assessment districts.

SENATOR LEE:
Is this a friendly amendment to the sponsor's amendment? Is he satisfied with it?

CHAIR SCHNEIDER:
Senator Horsford is comfortable with the City of Henderson's amendment. A NV Energy amendment removed this, but Mr. Ashleman and NV Energy Governmental Affairs Director Judy Stokey worked out their differences, so it is coming back as an agreed-upon amendment.

SENATOR TOWNSEND:
We have gone to a lot of trouble to accommodate the City of Henderson. What is your intention if you get this language?

MS. CORRADO:
We have done research on a similar Berkeley, California, program. We want to generate interest in and awareness of renewable energy in our City and help residents and businesses finance it.

CHAIR SCHNEIDER:
This amendment would cover all cities and counties in the State.

SENATOR TOWNSEND:
Did you have any specific thing in mind at the time?

MS. CORRADO:
We just had in mind the programs we have researched because we do not yet have a program, and we needed the legislative authority to pursue it. We do not now have funds available to do this, and need help in the future to finance renewables systems for private-property owners.

SENATOR TOWNSEND:
Can you give me an example?

MS. CORRADO:
If a residential-property owner wanted to install solar on his home, he might not be able to afford it by going through a lending institution. We could perhaps dedicate money or set up a pilot program to enable this. We would finance projects through bonding or General Fund dollars. We have not yet worked out the details.

PETE ERNAUT (NV Energy, Inc.):

> We don't have specific comments to the Majority Leader's amendment today. We did, however, distribute an amendment to his amendment (Exhibit G) to Mr. Young for the entire Committee. And I'm hopeful the entire Committee has had a chance to look at that amendment, and we'd like to refer our comments to that, if that's the pleasure of the Chair.
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> As you look to our amendment, the first concept is in section 1.77, subsection 3 [paragraph] (b). And that deals with the ... solar abatements for construction. And the simple issue here is we would like to have those abatements available for the utility as well. The concept is a very simple one. And that is that as this industry develops, we certainly would not want to put the utility in a competitive disadvantage with solar developers insomuch that without the abatement, any renewable energy produced by the utility itself, or in a deal with the utility itself, would obviously be more expensive. And, clearly, that then would be passed on to the ratepayer.
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> So, if the goal here is to take as much of the burden off of the ratepayer as possible, we'd like to level the playing field and take whatever abatements this Committee or both bodies ultimately end up with—there's obviously been a lot of discussions north of 50 percent and south of 75 percent in different terms—but

wherever you land, we would simply like to say that should be available for the utility as well.

The next section I'm going to hand over to Judy Stokey, Mr. Chairman, to go through a technical cleanup.

JUDY STOKEY (Director, Governmental Affairs, NV Energy, Inc.):
The second item in our amendment is the definition of "public utility." We had a hearing in this Committee on A.B. 186, which also defines public utilities. The purpose of the bill was to ensure individuals were not selling renewable power generated on their property. We would like to come back with language to this effect for S.B. 358 and A.B. 186.

MR. ERNAUT:
The last issue ... we'd like to discuss today is that of the allowance of the utility to purchase renewables out of State. And, again, the simple concept to that is a closed-end market creates a couple of unintended consequences for the ratepayers. And I think as a matter of public policy, we would ask you to consider, and that is if all other states, and especially California—which we understand is the 8,000-pound gorilla in the energy economy of the West—is allowed to buy renewable energy from other states, they clearly can drive that price up as they have somewhat of an insatiable appetite for renewables and capacity to pay a much greater rate than our utilities in some of the surrounding regional utilities. That's No. 1.

No. 2, obviously we don't want get into a position where as this industry develops that those solar developers, knowing they have a captive audience and that the utility's only regulated to buy energy from within the State and from it's hooked to our grid, then we are at a competitive disadvantage in negotiation of that price.

Now, it's clearly our intention to work with all of you to build this industry and develop renewable resources across the State. But we certainly don't want to be in a position, as it's growing, that we have infrastructure issues and capacity issues, or once it's become as robust as we're all hopeful that it will that we create, again, a closed-end market that puts the utility at a competitive

disadvantage either with solar developers or with other regional utilities. And so we would respectfully ask for this amendment that would allow us to purchase regional renewable energy.

Now, I know there has been some other concerns and maybe some concerns brought up earlier about this not being sent to the purchase of credits and to be regulated only to energy purchase, and we are fine with that. That certainly would not be something that we would oppose.

SENATOR CARLTON:
In Committee discussions over the last couple of months, one of my frustrations has been we have a solar power-generating plant in southern Nevada that did receive tax abatements or credits. It then did not sell the power to Nevadans; it was sold to California. We were told there was no requirement that it had to sell that power to Nevadans, so they could instead sell it to the highest bidder.

I am hearing you say you are being told that if NV Energy builds a solar plant, it will have to sell the power to Nevadans, even though other companies are not required to do so. If we can make one company do that but not another, and we are going to give them the same tax abatements, there is a much bigger picture than what you are trying to do.

MR. ERNAUT:
I think we need to kind of flip the binoculars over. And that example, I think, is a good one insomuch that an in-State company that had tax abatements from the State was able to sell 100 percent of its output to California, which, again, creates the first example that I used, which is we are in, whether we like it or not—because we cannot require solar developers that are in the State of Nevada to only sell their output to Nevada.

We are, whether we like it or not, in a regional economy. And we are competing our utility, our one investor-owned utility in the State, is now in competition with PG&E [Pacific Gas and Electric Company, Inc.] and the like for that output. And so that they have a greater capacity to pay a higher price, then the ratepayers in Nevada are substantially affected insomuch that it drives the price

up, and we are unable to compete or have to pay a higher price if we have an issue of having to satisfy load. That's No. 1 issue.

No. 2 issue is if you only allow the utility to buy renewable energy from the State, from within the State of Nevada, now we take the second competitive disadvantage and not allow us to compete on the entire regional market where we may be able to find less expensive power, say in Arizona, or—I doubt this—in California. And that savings can then be paid, handed over to the ratepayers or come to the benefit of the ratepayers.

If we are locked into a closed market, then the solar developer knows that we can't go out of State and then, again, suffer from the artificial price increase of the fact that everybody can compete in Nevada except us and everybody can buy outside of Nevada except us. So we get it coming and going, and the ratepayer is the loser in both instances.

SENATOR CARLTON:
So, I did understand it correctly.

SENATOR CEGAVSKE:
Along those same lines, when I look at the City of Henderson's proposal for all the other cities, does that compete with the private sector?

MS. STOKEY:
That is different because the City of Henderson will build a solar or renewables unit on city property just to service the City's needs.

SENATOR CEGAVSKE:
Does the proposal not allow the City to do bonding to pay for that?

MS. STOKEY:
Yes, that is basically a finance issue of trying to help individuals who cannot afford home renewables systems.

MR. ERNAUT:
Maybe I can help clear this up. The competition does not begin with their—and this is going to be a much more robust

> conversation, of course Thursday when we discuss distributive solar—but the issue becomes not that the competition begins in their construction; it's their ability to take that output and not just use it but then sell it. So, once they are able to sell the output then they become in competition with us. In actuality, if they're just building—well, it definitely starts it. I'm not saying that, but within the confines of just constructing it, it's no different than really the solar generation or conservation issues we have now. It takes some of the burden off of the utility.
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> There is then some savings in fuel-cost savings of not having to have the same output to service the same load. So, in some respects, it's good; it's just that then you allow them to take the next step to sell it into the market then it is definitely directly competition for us. And I'm sure going to talk about that in much more detail on Thursday.

FRED SCHMIDT (Holland & Hart, LLP):
I am here on behalf of Ormat Technologies, Inc., which generally supports almost all of the concepts of S.B. 358, in particular the intent of the bill's goal: to continue to develop and stimulate a "green" economy for the State. Ormat is the "poster child" for the RPS and renewable development in Nevada. It is the largest renewable developer in the State, where it owns and operates nine geothermal power plants. Its headquarters has been in the City of Reno since 1984, making the State part of its North American operation to develop geothermal and waste-heat energy processes.

Ormat has 160 full-time workers who receive an average wage of about $70,000 annually. We generate the majority of the renewable energy within and toward meeting the current RPS. Of Ormat's nine State plants, four have been built since passage of the RPS. All of the State's geothermal plants were built between 1983 and 1984, until the RPS passed. No plants were built from 1994 until the early 2000s because the State had no policy or incentives to pursue renewables technology.

I have a handout that is important for the Committee to understand because I have heard a lot of misinformation in both Houses about the cost to ratepayers of renewable energy (Exhibit H). The chart lists the actual cost for all renewables by technology as reported in 2008, as filed in two rate proceedings

known as "deferred-energy proceedings" by Nevada Power Company and Sierra Pacific Power Company, which acquire all renewable energy consumed in the State.

The entire cost of actual renewable energy produced and delivered in 2008 was about $90 million. The amount of energy was 1.2 million megawatt-hours (MWh) at a cost of $74 per MWh to all ratepayers of Nevada Power and Sierra Pacific. The breakdown of that cost is shown in four subcategories: geothermal, solar, biomass/methane and hydro energy. This is all of the energy required by the RPS.

Geothermal is the cheapest source, with an average cost of $60 per MWh. This was cheaper than the average fuel-and-purchase power costs of each traditional utility. Geothermal has been a great benefit for both the State's economic development and to ratepayers. It is helping ratepayers keep costs down in northern Nevada, where geothermal power is delivered, and in southern Nevada because Nevada Power buys many of the energy geothermal credits from Sierra Pacific.

Solar energy is by far the most expensive renewable. The listed cost reflects Boulder City's large solar plant. What this chart does not show is amending our RPS to allow out-of-state projects to qualify for it. The utility also spends money to buy credits; this means it buys renewables credits, but not the actual energy. This is done for geothermal for about $5 per credit, or $1.5 million total in 2008.

With photovoltaic (PV) power, the energy is consumed on-site, so the utility does not buy energy from the customer. Instead, it buys the credits from the customer at an average cost of $90 per MWh. Enough credits were bought to meet the RPS solar portion by spending about $9.5 million. Added to the total cost, it was about $100 million in 2008. I have left out the cost of rebates for NV Energy's SolarGenerations Program, which helps individuals install PV systems.

The $70 per MWh cost of hydropower reflects 3 hydro facilities on the Truckee River, at Lahontan Reservoir and in the Elko area. It does not include Hoover Dam, one of the cheapest power sources in the State system, although that is now constrained by federal long-term contracts and reduced output due to dropping lake levels. Hoover Dam power costs about $20 per MWh, and all

additional power acquired has gone to residential customers of Nevada Power. That does not count toward the RPS because large hydro facilities were built as far back as 1937.

NV Energy's proposed amendment to S.B. 358 concerning out-of-state resources is important to Ormat because it has geothermal plants in California, Hawaii and 16 other countries. Ormat has properties, leases or developments in Utah, Oregon and southern Idaho. The question raised by the amendment is whether it is good policy for Nevada to allow credits toward meeting its RPS to come from out of State. Inherently, this is contrary to the concept Nevada is trying to develop, produce and use renewable energy within the State. If we buy energy or credits from out of State, we are doing what the renewable-energy policy was developed to avoid. When Nevada builds coal or natural gas plants here, we ship all of the dollars for the fuel to the states that produced those resources. The concept of the RPS was to keep those dollars in the State, because we have valuable natural resources here.

Ormat's second concern is about out-of-state facilities qualifying for tax abatements, because under current contracts utilities buy credits from geothermal plants for the power generated on-site, not for energy delivered to the grid. Those credits are a significant component in meeting RPS. The $1.2 million shown on the chart is just over half of what the utilities had to do to meet the solar and non-solar RPS for 2008.

Up to 25 percent of the RPS was met by energy efficiency. That is a good thing, but we do not want to put efficiency in any more direct competition with developing renewables. Ormat has consistently said its only goal is to keep on the renewables target—let us not water it down or modify it, because it is an incentive for Ormat to keep exploring and developing in Nevada.

The station-use credit is essentially when a plant extracts geothermal water then reinjects it back into the ground; this is what makes the resource so clean and beneficial because no water is consumed. Ormat uses about 25 percent of the generating unit's power during the retrieval process. Station-use credits recognized by the PUCN allow the utility to buy credit from the geothermal developer because it is renewable energy produced in the State, even though it is not delivered to customers.

If you count out-of-state credits toward the RPS, it would be very simple for the utility to go to California and buy station-use credits. California does not recognize such credits, and we do not get any dollars for them there. For a few dollars, the utility could sell the credits—and no new renewable energy would be produced—and meet its RPS by buying them simply to keep costs down for ratepayers. That is contrary to the concept of Nevada's RPS and what the Legislature is attempting.

I have been working with NV Energy's Renewables Vice President Thomas Fair, but the amendment offered today does not achieve our goals. Do not adopt it in this form because if a facility is defined simply as a "meter," all the utility has to do is put a check-meter on a California geothermal plant then sell to the measuring system of a facility owned, operated or controlled by the utility. NV Energy has said that is not what it intends to do, but if we are going to recognize out-of-state renewables, we need to tighten the amendment's language so it does not significantly compete with in-state resources.

That is not because the renewables price will rise, rather that the prices on this chart may not continue. The price of solar is dropping, but it is nowhere near as competitive with conventional resources. Geothermal's price is rising, and we need to do everything we can to prevent ratepayers' costs from rising due to that. Any hardware-generation equipment that depends on steel is more expensive as steel's cost has risen.

It is illogical to assume that making out-of-state energy available will result in lower costs for Nevada ratepayers. If California is willing to pay more than $90 per MWh for geothermal energy, that power will be sold there—not in Nevada at a lower price. How do we lower the ratepayers' costs in Nevada? We develop our own indigenous resources.

Tax abatements are a tool to provide an incentive for developers, and they do lower their costs. They also lower costs to ratepayers. When Ormat was in contract negotiations and the federal government offered production-tax credits, we lowered the price of power sold to achieve the RPS after 2003. When the production-tax credit became uncertain, that price began to rise. Ormat offered a two-tiered price to the utility based on whether we got the credit. Ormat's three contracts being developed for the Sierra Pacific grid have a two-tiered price structure. If we do not get the tax credit, ratepayers will pay more for their electricity.

The same concept could apply to tax abatements. You do not give every dollar of the abatement to the ratepayers, but if you give them a significant portion of it, they will clearly benefit. Ormat would like to qualify for abatements, but geothermal is not in this bill because it has never received property-tax abatements. If it is added to this bill, we may cautiously pursue that because we value our relationships with local governments and counties. We would try to determine the impact on them before accepting such an abatement.

What I have never understood about this bill or concept is why renewables are consistently defined everywhere else, but geothermal is excluded in the property-tax abatement portion. If the word "geothermal" was added, it would not significantly impact revenue stream, which some counties might fear. Please consider this addition cautiously as a good tool to promote geothermal in northern Nevada as the cheapest and most reliable renewable resource. Unlike solar and wind, geothermal runs 24 hours a day, 7 days a week. It declines a bit in the summer because plants are air-cooled and try not to consume water. Geothermal's availability is in the range of 90-something percent a year, and its price is very attractive. Why would not Legislators do everything they can to promote more geothermal development?

However, we should not open the door widely without considering the consequences to out-of-State generation. Power will not come from California, but may come from Idaho or Utah. Why would we incentivize Utah to develop its economic base to ship power to Nevada? We can develop robust geothermal opportunities here and ultimately ship that power out of State. We are working on another proposed amendment to include geothermal in the property-tax abatement, but without it we will oppose this bill in both Houses.

SENATOR CARLTON:
The cost utilities pay currently for renewables is on your handout. Utilities meet the RPS by purchasing renewable-energy credits (RECs). What are utilities paying for renewables now?

MR. SCHMIDT:
On average, they pay $74 per MWh. Utilities' annual cost for purchasing all power is about $80 per MWh. They bought just under $1 billion of MWh: $680 million by Nevada Power and about $300 million in Sierra Pacific. This compares very favorably to the average MWh cost of traditional power.

SENATOR CARLTON:
Has $1 billion been put on utility bills for renewables?

MR. SCHMIDT:
No, that is the total purchasing power from all of the utilities. Renewables constitute about 10 percent of that figure. If you look at all the power a utility purchased for 2008, it was about $1 billion, including $100 million for renewables. The actual cost of electricity for Sierra Pacific and Nevada Power customers for 2008 was $3.5 billion—all the revenue collected from ratepayers. That cost of $100 million for renewables out of $3.5 billion is less than 3 percent.

The additional cost not on the chart was that of PV and station-use credits, but this was not for actually purchasing energy. Deferred-energy cases do not show that because they do not buy the energy. The cost for geothermal station-use credits was about $1.5 million; for PV, it was less than $9 million. This included purchasing the Nellis Air Force Base PV installation's RECs, although the base consumed the energy, and those of the Las Vegas Valley Water District. Those facilities generated about 19 MW total for their customers. The RenewableGenerations PV program produced about 2 MW for just under 500 homes statewide.

SENATOR CARLTON:
Are you saying $100 million has been spent on renewables?

MR. SCHMIDT:
Yes, which is a drop in the bucket.

SENATOR CARLTON:
Is the average cost $74 per MWh?

MR. SCHMIDT:
Yes, for the energy produced.

SENATOR CARLTON:
The chart says geothermal costs $60 per MWh, and solar was $169 per MWh. If it is $100 million at $74 per MWh, and we are also looking at $169 per MWh, would the price for solar be $200 million until it is driven down?

MR. SCHMIDT:
The solar energy on the chart was all produced by the Boulder City station. It was the only source reported in the deferred-energy case for which the utility seeks collection of dollars spent.

SENATOR CARLTON:
Is that cost $169 per MWh?

MR. SCHMIDT:
Yes, but the utility can pay less than that today. The cost for solar for both northern and southern Nevada was $23 million in 2008. One-third of that power is sold to Sierra Pacific under a transfer agreement.

SENATOR CARLTON:
By increasing the RPS to 25 percent by 2025 with carve-outs of 2 percent and 5 percent, will geothermal, biomass and hydro be the entities fulfilling the rest of the RPS?

MR. SCHMIDT:
Yes, the non-solar sources. I do not think they will raise ratepayers' prices more than would other, more-conventional technologies. It is important for the Committee to continue the RPS as the prices increase for the non-solar sources so utilities will have incentives to continue buy them. They would buy it if it is a little cheaper or the same price because they do not make a profit. The cost is passed on dollar-for-dollar to the ratepayer.

SENATOR CARLTON:
I would assume that geothermal is included since it will make up the difference in the RPS. Why do you think geothermal is not part of the tax abatements?

MR. SCHMIDT:
In section 1.75, subsection 2, paragraph (f) of Senator Horsford's mock-up amendment, "renewable energy" is strictly defined as biomass, solar energy or wind. This is the section that defines what source is eligible to apply for a property-tax abatement. Geothermal has never received one. We have a tremendous track record in entering into agreements and developing geothermal with power companies, and hope that pursing a joint venture will garner more support for us to receive abatements.

Geothermal's main hang-up is getting to market in southern Nevada because it is not connected by transmission to the north. When that line is built, the opportunities for southern Nevada to receive the north's geothermal energy to provide future base-load will be almost unlimited.

SENATOR CARLTON:
It will be interesting to compare what we are now paying for renewables to its future cost.

MR. SCHMIDT:
Ormat and other renewables companies looking into doing business here need to get into this fray if amendments are passed that water down the RPS amount for non-solar energy. Before we added energy efficiency, the RPS was 15 percent. Afterward, the Committee did not water down the RPS by making it 20 percent and limiting efficiency to 25 percent. Both Houses insisted on that so as to not diminish the 15-percent target. We do not oppose energy efficiency, but let us not increase the RPS at the cost of the existing 15 percent. It will be difficult to achieve that percent; the utilities met that standard this year, albeit creatively.

If we keep on target, the green economy envisioned by Senator Horsford and the Energy Policy Working Group can become a reality. Nevada is at a unique point, given what is happening at the federal level. All of the states around us are doing the same things, but we do not want to get whipsawed into a competition. However, if we have unique natural resources, we should facilitate their development.

SENATOR CEGAVSKE:
Is there delineation on ratepayers' bills showing they are being charged for renewables?

MR. SCHMIDT:
The bill has four components: the fixed customer charge, energy charge, deferred-energy surcharge or credit and a charge for the SolarGenerations and RenewableGenerations programs and the Temporary Renewable Energy Development (TRED) program of the Boulder City project. The last line item does not show the cost of renewables; it just shows what you pay for rebates for those programs. Also on the bill are the universal energy charge and franchise taxes collected by cities and counties for use of right-of-ways.

SENATOR CARLTON:
I mistakenly believed that the renewable-energy program on the bill has .0022 as the multiplier for kilowatt-hours, which totaled 41 cents on my bill. Does the renewables charge not represent their total cost?

MR. SCHMIDT:
No, that represents the cost you paid toward the solar-, wind- and water-power demonstration programs and SolarGenerations. If a residential customer applies for a PV installation, he can get a $2.10 rebate per watt, down from $5. The PUCN has the discretion to set the amount, and it has been lowered each year as more people sign up. The rebate is higher than $2.10 for public facilities because up until 2008, very few such buildings could meet the application standards, financing and completion of projects. Senate Bill 358 will make that more flexible.

SENATOR CARLTON:
Ratepayers are charged more for the business-licensing fees than for renewables or TRED.

BOB GOFF (Co-founder and Vice Chair, Nevada Institute for Renewable Energy Commercialization):
I am here to speak about Senator Townsend's proposed amendment to proposed amendment 4669 to S.B. 358 (Exhibit I), section 19.55.

SENATOR TOWNSEND:
Let me preface Mr. Goff's remarks. My amendment tries to deal with a component of the bill that Senator Horsford added but around which we have never gotten our arms. Section 19.55 attempts to tie the NSHE to the private sector's intellectual capacity and commercialization possibilities. We have already created the Nevada Institute for Renewable Energy Commercialization (NIREC) to marry the NSHE's intellectual capacity to its private-sector counterpart using private and public funding. This creates benefits to the general public, the NSHE and investors. I brought this amendment forward so we do not create anything new.

CHAIR SCHNEIDER:
Basically, we are inserting NIREC into the bill.

MR. GOFF:
Senator Townsend has said it all. I have already testified before this Committee about the capabilities and achievements of NIREC. Because we already have an institution in place—funded jointly by the private sector, State and U.S. Department of Energy (DOE)—it makes sense to work with existing organizations to commercialize technology and intellectual property.

CHAIR SCHNEIDER:
We can have Mr. Nichols adopt this amendment into the final mock-up.

SENATOR TOWNSEND:
What Mr. Schmidt delivered was the equivalent of a 20-minute PUCN rate case. The Committee needs to understand how thorough the PUCN must be when it conducts complex rate cases. It includes testimony by the utility, Consumer's Advocate, PUCN staff and any other interveners. Unless you have sat through a case, you cannot appreciate the man-hours, intellect and necessary deliberations required to come to a decision. The decisions are not arbitrary or capricious and are very methodical and difficult.

HATICE GECOL, Ph.D. (Director, Office of Energy, Office of the Governor):
I have given the committee two handouts: the testimony by me and that of my staff (Exhibit J) and a chart showing the NSOE's activity and program network and an outline of the seven staff members' responsibilities (Exhibit K). We currently have just four staff members, but last week the joint meeting of the Senate Committee on Finance and the Assembly Committee on Ways and Means approved funding for three more staff members.

We are concerned about the proposed amendment to S.B. 358 that would dissolve the NSOE. We have done an excellent job for the energy stakeholders of Nevada. The NSOE has direct access to the Governor and other agencies that answer directly to him. We can quickly reach out to, educate and negotiate with those agencies to help develop the State's renewable-energy industry.

The proposed organizational change would create at least two levels of management between the proposed energy commissioner and the Governor. This will complicate and slow processes. The NSOE works with investor-owned utilities regulated by the PUCN, rural electric cooperatives, municipal utilities and general-improvement districts.

There is reluctance to have unregulated public utilities work with the PUCN. This may inhibit the necessary free flow of information to develop statewide energy policies. Public utilities not regulated by the PUCN serve 45 percent of Nevada, providing 9 percent of the electrical needs. The NSOE also represents the State's energy interests in various regional and national organizations.

Office of Energy activities not only include energy-efficiency and -conservation programs, but also electrical- and fuel-supply shortage issues, responses to energy emergencies, fuel rationing, reducing fossil-fuel use, reporting the State's compliance with the federal Alternative Fuel Transportation Program, overseeing federal transportation issues, monitoring energy-conservation efforts by contractors, overseeing court compliance, working with the Commission on Economic Development to develop green jobs and helping everyday citizens to go green.

Placing the NSOE under the PUCN's jurisdiction could cause organizational mistakes, which could give a competitive advantage to states with renewables programs similar to ours. Placing the NSOE under the PUCN will create a conflict between a regulatory agency and an advocacy agency. It is simplistic to call a layer placed between the PUCN and the NSOE a "firewall."

We ask you to reconsider this portion of the amendment, which could potentially inhibit the growth of Nevada's renewables industry and green-jobs movement. Finally, we support increasing the RPS and the concept of general tax abatements for renewables.

NICK VANDER POEL (Deputy Director, Office of Energy, Office of the Governor):
The NSOE is a conduit between the energy industry and the State. Nevada is in an unstable economic position, and the developing renewables industry could diversify our economy. Now is not the time to establish a new authority or task force and burden that industry with another level of bureaucracy. The NSOE's mission will enhance energy security, stimulate economic growth and create high-paying jobs.

The NSOE develops and implements energy-related regulations, policies and activities mandated by Legislators as per NRS 701, 701A and 333A; and implements and coordinates federal energy policies. The NSOE partners with other State agencies and local governments to carry out its tasks. The biggest economic winners in the renewables industry will be Nevada's rural counties.

PETE KONESKY (Staff Engineer, Office of Energy, Office of the Governor):
Much of the NSOE's funding comes from the federal State Energy Program (SEP), to which there are many strings attached. I will review the things the NSOE must do to receive the grants. The NSOE must provide mandatory lighting-efficiency standards for public buildings, promote carpools and van pools and public transportation, provide mandatory standards and policies for procurement practices of the State and its political subdivisions to improve energy efficiency, provide mandatory standards for thermal efficiency for new and renovated buildings and improve by at least 25 percent the energy efficiency of State buildings by 2012.

The SEP requirements also include drafting an energy-emergency plan in the event of supply disruption, including regional coordination, for the DOE; revising the State energy plan every three years; drafting grant applications; monitoring subgrants; filing an annual report of State compliance with the Alternative Fuel Transportation Program; and providing fiscal and program reports to the DOE. The NSOE also must perform a long list of tasks as mandated by NRS.

SENATOR CEGAVSKE:
Does the NSOE's task to "Prepare regulations for certain types of lightbulbs" have to do with the recycling of compact fluorescent bulbs?

MR. KONESKY:
The regulation does not require us to cover that.

SENATOR CEGAVSKE:
We are asking all of these buildings to change out their lightbulbs, then consumers find out the bulbs contain toxic lead and mercury. How do we, as a State, dispose of them if we do not have a place to do so?

When I look at the NSOE Activity and Program Network chart, I am uneasy. Did legislative decisions establish all of these groups? Is this not somewhat convoluted, or is it workable?

DR. GECOL:
Yes, this is what the NSOE has been doing.

SENATOR CEGAVSKE:
You have a box labeled "energy efficiency," which leads me to believe you are looking at that and "Renewable Energy Workgroups, Project Developers and Advocacy Groups."

DR. GECOL:
There are several energy-efficiency working groups throughout the State, region and Nation. The chart has a box next to the "Energy Advisor/Director of NSOE" labeled "RE & EC Task Force." Those are the Renewable Energy and Energy Conservation task forces created by Legislators.

SENATOR CEGAVSKE:
I am asking if what we have done and what we are seeing here is efficient. Also, what are we doing to recycle lightbulbs statewide?

DR. GECOL:
This network works well for us; in addition to it, we have short-term committees. We create short-term committees based on need to bring together experts and resources to do the work quickly and move on. The Nevada Climate Change Advisory Committee had only one year to produce the Governor's energy bill, S.B. 395.

**SENATE BILL 395 (1st reprint)**: Makes various changes regarding renewable energy and energy efficiency and alters the composition of the Commission on Economic Development. (BDR 58-1219)

SENATOR CEGAVSKE:
Seeing as how S.B. 358 is proposing to get rid of some things, I would like to see a chart on how those changes will compare to the current chart. We can ask Senator Horsford for that.

DR. GECOL:
A lightbulb-disposal amendment was included in a bill sponsored by Senator Townsend in the 74th Session. We immediately began communicating with the Division of Environmental Protection to implement their disposal. Throwing away one or two bulbs will not have a big impact, when you talk about millions of bulbs throughout the Nation, that is a problem. No regulation currently addresses the issue, but we will be working on a regulation with the

Division of Environmental Protection that will become effective in January 2012.

SENATOR CEGAVSKE:
Senate Bill 358 also does not address lightbulb recycling.

LORAYN WALSER (Management Analyst, Office of Energy, Office of the Governor):
How much time would it take to set up a restructured NSOE and have it operating efficiently? Making this change midstream in the stimulus-funding process could substantially delay receipt of the money. There will be a loss of institutional knowledge if current NSOE employees worried about uncertainties transfer to other agencies. Leadership in Energy & Environmental Design Green Building Tax Abatement registrations are being processed now, and a change could compromise the NSOE's ability to comply with deadline requirements. We are in the midst of the administrative rule-making process for energy bills passed in the 74th Session. Office consolidation would delay that, causing an indirect effect on other agencies with which we have been working to develop regulations.

SENATOR TOWNSEND:
The rule-making process you just mentioned took two years last time. We should not make policy by anecdote. As Chair of the Legislative Commission, I reviewed all regulations so I know it takes forever to get something done, particularly if a commission only has one member.

In looking at the bill, if you ignore the elimination of NSOE and were to take what is currently in the bill as a proposed new section to incorporate into your Office, what would that take? If you did not eliminate the Office, but took everything Senator Horsford would like to accomplish with the new authority, how would you accomplish that? Would the institutional knowledge be retained, and how long would it take to get up to speed?

If the NSOE is not incorporated into the PUCN and is simply a stand-alone agency—which is currently in this bill—how long would that take to put together? My concern is not being able to enact a regulation for two years. We need to look at all the options; there are good things in this proposal for this new authority.

I do not agree with Senator Horsford that the NSOE belongs in the PUCN, which already has enough to do. I can see the NSOE as a stand-alone agency, even if the Legislators choose to abolish the Office but keep the authority. The other option is to incorporate all of the good things in this bill into the NSOE. Can you show us on paper how that could be done, and how the bill's proposals could fit into this mechanism?

SENATOR LEE:
Senator Townsend, did you ask how much incorporating the two agencies would cost?

SENATOR TOWNSEND:
Dr. Gecol, at what level does your Office receive General Funds?

DR. GECOL:
We will receive $245,000 or $249,000 for FY 2010-2011.

SENATOR TOWNSEND:
Under the bill, that would be a savings to the General Fund because the proposal is to fund the NSOE through the mill tax, based on its need and staffing level.

SENATOR LEE:
Would the mill tax have to be raised to a certain percentage to do this? There is a whole other debate on the PUCN. Would we have the wherewithal and the ability to do that in these tough economic times?

SENATOR TOWNSEND:
The answer has two specific points. The PUCN is now allowed to charge up to 3.5 mills, but is taking about 1.95 mills to fund itself and .75 mills to fund the Office of the Consumer's Advocate. This bill says the PUCN would be required to take whatever mill tax is necessary, up to 3.5 mills, and provide itself and the Office of the Consumer's Advocate with however much is needed to operate, based on the bill's mandate.

SENATOR LEE:
Based on your concern about going in that direction, are we willing to fund the NSOE? Where the bill could take us is one thing, but the funding is the issue.

SENATOR TOWNSEND:
Given the tremendous financial constraints of the Governor's proposed budget, if we could wean the NSOE or this authority off of the General Fund, I would be thrilled. That money could be used for people who really need it. Since the Office is all about energy, and we pay an energy bill, it should be funded through the mill tax because that spreads the burden much more broadly.

The questions will be: what does the NSOE need to operate, and if we create the authority as per the bill, what will that cost? If it is substantially more, that is a mill-tax addition that we cannot do. We made the NSOE a stepchild on the day we created it and have never given it the resources to do our bidding. If we change the Office, we must properly fund it if we expect it to do anything more.

If we passed this bill as is, I do not have a clue who would take the job of energy commissioner for the new authority. We are asking him to do almost everything without the money to do so. If we leave it up to the PUCN to establish a new mill-tax amount to fund the authority, if the PUCN does not like the new agency, it can cut its funding. Legislators need to establish the mill tax.

SUZANNE JOHNSON:
I am a private citizen who truly believes in solar energy (Exhibit L). My Gardnerville house is solar. When Pacific Gas and Electric Company, Inc. was my utility, I was familiar with its SolarGenerations-type rebate programs. I was impressed and surprised that in Nevada I had the option of not participating in a PV-installation rebate program, instead, retaining ownership of my RECs. These are the renewable attributes of the energy generated by my system. I chose to keep my RECs.

The PUCN administers a program in which customers can interact with a knowledgeable PUCN engineer and REC administrator. In my experience, the engineer did the system inspections promptly, and the REC administrator quickly returned my phone calls when I had problems with the PUCN's database or data entry.

Other states have REC programs that seem to be more robust than Nevada's. The number of Fortune 500 companies buying RECs has steadily increased. A homeowner can participate in two NV Energy programs to install a PV system. In 2007, my Reno friend got bids for a PV system then figured out there was not enough return on his investment through SolarGenerations.

Two years ago, I was offered $75 per 1,000 RECs; this year, I was offered $25. In a state like New Jersey, people who own RECs are being offered more than $200 per 1,000. I asked my Reno friend to reconsider what his return on investment would be if he accessed the REC valuation. That would have changed his mind about installing PV.

There is no one-size-fits-all program; we are fortunate to have two routes to recover renewables investments. One reason why our REC program is not as robust as in eastern states is we allow the PUCN to oversee the REC program and RPS regulations and penalties. It would be a good idea for Nevada to set aside a higher percent of the RPS for residential solar. Also, we could benefit if those who set up our REC program were to consult with states where the REC value is high. These elements were in Amendment No. 387 to S.B. 358, but are gone from the latest proposed amendment.

CHARLES BENJAMIN (Director, Nevada Office of Western Resource Advocates):
You have my proposed amendment to S.B. 358 (Exhibit M). In Senator Horsford's amendment, Exhibit D, page 6, lines 38-39, are several tasks the proposed energy commissioner would carry out, including overseeing "Current electric transmission infrastructure and capacity; and (4) The feasibility of future electric transmission lines."

I propose adding to section 1.45, subsection 5, paragraph (a), subparagraph (5) "Developing proposals for the financing of future electric transmission projects for renewable energy if no such financing proposals exist." This would not take the place of the private sector or the utility, but if there were a scenario in which transmission lines were needed for clusters of renewables projects, this would create another funding tool.

My handout includes characteristics of other states' infrastructure authorities, specifically for transmission and exportation of electricity. Senator Horsford's bill does not set up such infrastructure, but is setting up elements of it. I am proposing a missing element.

GREG BORTOLIN (Desert Research Institute):
I am here on behalf of the DRI and the NSHE. I am requesting that section 1.45, subsection 6, which reads, "Nevada System of Higher Education," be replaced with "Nevada Renewable Energy Integration and Development Consortium." As per my handout (Exhibit N), this change better reflects the goals of renewables

research at DRI, the Universities of Nevada at Reno and Las Vegas (UNR and UNLV), and various renewables job-training programs at community colleges.

In the federal FY 2009 budget, $2.5 million was allocated through DRI to the Nevada Virtual Renewable Energy Integration and Development Consortium to coordinate research and development at the State's research institutions. The DRI will play a coordinating role in the program, working with UNR, UNLV and the community colleges. These institutions will work to make Nevada the leader in renewable-energy research, development, demonstration, commercialization and workforce development and in energy self-sufficiency. The institutes will collaborate with business and industry stakeholders. The language change I am requesting will be consistent with what has already occurred in the United States Congress.

CHAIR SCHNEIDER:
We can develop an official definition of the Nevada Renewable Energy Integration and Development Consortium.

JEFF FONTAINE (Executive Director, Nevada Association of Counties):
I will give you some highlights of the Nevada Association of Counties' (NACO) position on renewables tax abatements, as outlined in my handout (Exhibit O). This is by way of background to our proposed amendment (Exhibit P).

The NACO fully supports the development of renewables. Since the proposed tax abatements will come chiefly from local government and county revenues, counties should have a say in how abatements are granted. We have heard the argument that most of these projects will be on undevelopable land, but we do not know if that is true for each project. Regardless of where projects are sited, county governments must provide services, specifically emergency-response and public-safety needs, for them.

Tax abatements should be based on sound research and analysis. The report you have discussed in previous hearings lays out how Nevada's soon-to-expire abatement structure positions us to be the most competitive Southwest state. We also want to ensure that whatever the abatements are, projects should undergo a rigorous benefit analysis, including creation of new construction jobs and long-term jobs. The latter should be workers who are residents of the host county.

Nevada has a regulatory climate that favors these projects, and NACO wants to make sure that is highlighted and developed. We will help process permits and approve renewables projects.

There must be some sort of financial mechanism to ensure these projects include infrastructure that can be recycled or reclaimed when the facilities eventually become infeasible. Counties should not have to assume the financial burden of abating a nuisance or public hazard, so we would like a reclamation fund to be established.

NORMAN FREY (Commissioner, Churchill County):
Churchill County has a lot of geothermal resources and produces almost 200 MW of electricity—power for more than 500,000 people. Most of it is exported out of the State. The County has the responsibility of providing for roads and infrastructure and indigent problems with geothermal construction workers. We would like consideration that counties are kept in the loop of how abatements are issued and their amounts.

A 10-year, 50-percent abatement is workable, with a 25-percent tax deferral. Taxes would be paid later on, so the counties would still benefit. I do not favor a property-tax abatement on geothermal properties. We are trying to work out a monitoring program with Enel North America for its Stillwater facility. People have been using geothermal to heat their homes for more than 100 years, but that could be jeopardized if geothermal is overused. The State has no system for monitoring heat sources.

I favor a reclamation program because if a renewables facility and its technology goes awry or it has a bad business plan and the developer walks away, the county must clean up a very bad environmental mess. This is especially true for PV and wind-turbine projects.

Another reason I do not support the property-tax abatement is geothermal is already a cheap energy source. Counties are being asked to subsidize the ratepayers; Nevada's smallest counties must subsidize ratepayers in the largest counties. You are charged with developing a workable policy that maximizes the advantages of our resources for the maximum benefit of all of Nevada's communities.

JERRIE C. TIPTON (Vice Chair, Mineral County Board of Commissioners):
Mineral County is either blessed or cursed with a huge geothermal resource and two wind-generation areas. We have 3 wind-test towers in place, 5 geothermal companies seriously looking at us and 7 solar companies. Hawthorne Naval Ammunition Depot has drilled two geothermal test holes and plans to drill two more. I predict the Depot will build a huge solar plant in conjunction with their geothermal facility. The Mineral County Commission is currently reviewing a business license for something called "Luning Solar."

If I were a large solar company and knew I could come to Nevada and have a 20-year 75-percent reduction in property taxes, I would operate for just shy of 20 years then go out of business. If there is no reclamation provision, Mineral County could not afford to clean up the company's mess.

I believe in tax abatements and deferrals, but we need to determine how many jobs a company will provide. For a small county, that is the most important factor. We need to know what facilities will do for the county's overall economic development.

SENATOR LEE:
We do reclamation for mining and other industries to ensure our counties are clean. If a section of land within a county owned by the federal government is dedicated to a solar facility and there is payment in lieu of taxes (PILT), how much would that be?

MS. TIPTON:
Nevada has Schedule A and Schedule B counties for PILT purposes. The payment is either $2.29 or $1.29 per acre. If land is removed for a military or tribal reserve or a state or national park, counties get no PILT. If land is reserved for a mine—which is resource use—we get no PILT. It would be the same for a solar field or geothermal plant.

SENATOR LEE:
A section brings in an annual payment of $3,500 that the county will not receive. How are water, power and sewer brought to a renewables facility? How many hard costs is that for a county?

MR. FREY:
In Churchill County, most of these facilities are in very remote areas. Potable water is generally hauled in by truck, and they provide their own septic and electricity. We must provide emergency services and fire and police protection before plants even become operable. This is not about the abatements. Churchill County has about 200 geothermal wells scheduled to be drilled within 3 or 4 years and another 12 plants set to come in.

If construction workers bring their families with them, the county has to take care of their medical needs and provide police protection. Hauling in heavy equipment takes a heavy toll on roads.

SENATOR LEE:
But to be offset by the spending, they almost ...

MR. FREY:
A lot of the equipment is brought in from outside, and bars and restaurants benefit from an influx of people. The companies are already in an expansion mode when they arrive.

CHAIR SCHNEIDER:
If a J.C. Penney Company, Inc. outlet moved to Hawthorne, would it get a tax abatement?

MS. TIPTON:
We would probably agree to a rebate or abatement. I understand the difference between a resource-based industry and a manufacturing-based industry and the drains on a county from both of them. The Caithness Dixie Valley LLC geothermal plant has just 12 employees working 3 shifts in order to operate 24 hours. That is not a lot of jobs for a 75-percent tax reduction.

MR. FREY:
I support abatements, but as Mr. Schmidt testified, Ormat has 9 plants in Nevada with just 70 employees: easy math. The deal is in the plants' assessed valuations; three of the top ten taxpayers in Churchill County are geothermal plants.

CHAIR SCHNEIDER:
Do you get lease payments from the federal government on federal lands?

MR. FREY:
The county gets some royalties. The State takes the federal lease-auction payments, which are tenuous at best.

ROBERT TRETIAK, Ph.D. (International Energy Conservation):
To clarify what is the deferred-energy adjustment on a utility bill, the back of the bill identifies this as a rate-adjustment mechanism that reimburses the utility for the electricity purchased on behalf of the customers. When a utility has to buy the highest-priced energy during peak power usage, it is allowed to charge out for that in its rate structure. That amount is recaptured from ratepayers in the deferred-energy adjustment.

Nevada has an integrated-resource concept. Utilities file integrated-resource plans, which include fossil fuel and renewable generation and the "invisible power plant," energy efficiency. My organization is concerned that even if a utility purchases RECs, it has not yet purchased energy-efficiency portfolio credits. We know efficiency is the cleanest and cheapest resource.

Senator Cegavske asked about the toxic-waste disposal issue with lightbulbs. A bill in the 74th Session required that by 2012, all State lighting must be at least 25 lumens per watt. An incandescent bulb generates about 15 lumens per watt. The southern Nevada utility partners with large home-improvement stores to dispose of compact fluorescent bulbs, but industrial customers have a problem with their disposal. We recommend our clients use light-emitting diode bulbs, which have no toxic components.

You have my handout on the benefits of DG (Exhibit Q). It is important not to put the renewables cart before the energy-efficiency horse. We must reduce our consumption rate as rapidly as possible, determine our true needs and then meet them with renewable and sustainable energy.

CHAIR SCHNEIDER:
If there is no more business to come before the Senate Committee on Energy, Infrastructure and Transportation, I adjourn this meeting at 11:07 a.m.

RESPECTFULLY SUBMITTED:

Patricia Devereux,
Committee Secretary

APPROVED BY:

Senator Michael A. Schneider, Chair

DATE: