

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

**Seventy-fifth Session  
March 13, 2009**

The Senate Committee on Energy, Infrastructure and Transportation was called to order by Chair Michael A. Schneider at 8:09 a.m. on Friday, March 13, 2009, in Room 2135 of the Legislative Building, Carson City, Nevada. The meeting was videoconferenced to the Grant Sawyer State Office Building, Room 4412E, 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 Randolph Townsend  
Senator Barbara K. Cegavske  
Senator Dennis Nolan

**COMMITTEE MEMBERS ABSENT:**

Senator Shirley A. Breeden (Excused)

**GUEST LEGISLATORS PRESENT:**

Senator Warren B. Hardy II, Clark County Senatorial District No. 12

**STAFF MEMBERS PRESENT:**

Scott Young, Committee Policy Analyst  
Josh Martinmaas, Committee Secretary

**OTHERS PRESENT:**

Craig Castleberry, Extreme Outdoors  
Darrell Thompson, Bad Ass Golf Carts  
Edgar J. Roberts, Director, Department of Motor Vehicles

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Hatice Gecol, Ph.D., Director, Office of Energy, Office of the Governor  
Richard Daly, Laborers Union Local 169  
Rose McKinney-James, The Solar Alliance; Energy Works Consulting  
Jason Geddes, City of Reno; Nevada Renewable Energy and Energy  
Conservation Task Force  
Joe Johnson, Toiyabe Chapter, Sierra Club  
Kyle Davis, Policy Director, Nevada Conservation League  
Russ Cartwright, Ideal Solar Solutions  
Rebecca Wagner, Commissioner, Public Utilities Commission of Nevada  
Debra Gallo, Southwest Gas  
Judy Stokey, NV Energy  
Ray Bacon, Nevada Manufacturers Association

CHAIR SCHNEIDER:

We will open the hearing on Senate Bill (S.B.) 179.

**SENATE BILL 179**: Expands the definition of a low-speed vehicle to include certain utility terrain vehicles. (BDR 43-904)

SENATOR WARREN B. HARDY II (Clark County Senatorial District No. 12):

I have introduced this bill on behalf of a constituent. I have been an avid off-roader and outdoor enthusiast most of my life. The sad thing is, I do most of my off-roading in southern and central Utah because the culture there is friendlier to the sport. While the places I ride in Utah are beautiful, they have nothing on the beautiful places in Nevada. It would be a huge economic development opportunity for our communities to take advantage of this sport and to attract folks to their areas to recreate.

This bill is not specifically directed at that, but it is directed at adjusting the culture in Nevada to being more open and accommodating of those who enjoy this sport. The bill is self-explanatory. We have been working with the Department of Motor Vehicles (DMV) and they have five points of concern. I would like this to go to an informal work group to get the questions and concerns answered. There are states that surround us that do this. The big question is liability and one we have to answer, but other states have answered that or they have ignored it—and that is tenuous if they have ignored it.

CRAIG CASTLEBERRY (Extreme Outdoors):

I have worked on getting golf carts and side-by-side vehicles registered as low-speed vehicles for close to three years now. There are enough laws on the books to get this done if you read the statutes, but there are hidden things I cannot get hold of and red tape that block it from the DMV. We already have low-speed vehicles on the books. We are trying to get golf carts and side-by-sides modified, which I have done on my personal Yamaha Rhino, to meet the low-speed vehicle law in the Federal Motor Vehicles Safety Standard No. 500 at 49 C.F.R. section 571.500. I have had the DMV throw everything at me from not registering off-road vehicles—which they do—to a low-speed vehicle not being able to have a truck bed. The latter was an old legal counsel interpretation. Every time they threw something at me, I came up with a law or something different that said we could do this. The DMV is worried because the vehicles are built as off-road vehicles. The manufacturer will not give a disclaimer for anything different. As the vehicle was produced, it was not an on-road vehicle, but in Nevada we can modify vehicles. The federal government allows us to do it as long as it meets Motor Vehicle Safety Standards for what we are building. The DMV's biggest problem is the manufacturers' liability and the off-road designation. The DMV does register off-road vehicles. I can purchase a dirt bike, never designed as an on-road vehicle, with no turn signals, lights or anything, and I can buy a kit and put it on the road after the DMV registers it. This is what we are asking for with the side-by-side vehicles.

This is a good thing for Nevada. A lot of people want to do this and there are a lot of parts involved to convert these vehicles. Jobs would be created from companies doing conversions. There would also be the collection of registration fees and taxes. Plus, they are a lot of fun to drive. There are less emissions, and in the case of electric golf carts, there are no emissions. I will start my Ford diesel truck to drive to the grocery store or to deliver packages. A one-cylinder engine, like in my Yamaha Rhino, would produce a lot less greenhouse gases and save fuel.

SENATOR CARLTON:

I am a little confused about the problem. What are we trying to fix?

MR. CASTLEBERRY:

We already have a low-speed vehicle law. We are trying to allow the DMV to take my vehicle, which has been converted and fully meets the federal and state law as it is defined, and register it.

SENATOR CARLTON:

We have had the registration discussion numerous times. It is a passionate issue for those on both sides of the issue. Do you want to register your vehicle and have it be street legal and pay insurance? I appreciate that, but I am trying to figure out the problem.

MR. CASTLEBERRY:

The problem is bureaucracy. I was told if I became a manufacturer, with the state and the federal government, I would be able to rebuild these vehicles, certify them and then they would be a low-speed vehicle. The DMV says an owner cannot do it, only a manufacturer. Darrell Thompson has told me they have a golf cart manufactured in California, by a licensed manufacturer, which has the Manufacturer's Statement of Origin (MSO) as a low-speed vehicle, and because it has golf cart on it, he cannot get them registered. California is ahead of us on this, they are doing a lot of these low-speed vehicles. I do not know any owners personally, but I have seen Yamaha Rhinos and Polaris Rangers with license plates on them.

SENATOR HARDY:

The document you have in front of you is from DMV ([Exhibit C](#)). It is the DMV's list of concerns I hope to address in a working committee. The confusion is this, the DMV has a policy that they do not title or register vehicles that are not labeled by the manufacturer for on-road use. So when you buy one of these vehicles that says, "For off-road use only," the confusion comes in when you can also buy a dirt bike, like a Yamaha WR 450F, which is not street legal. There is a disclaimer that says not for street use, off-road use only. However, for about \$600 you can buy a kit that makes it street legal and then the DMV will register it. The question my constituent has is, what is the difference? You are modifying a vehicle, why can it not then become street legal?

SENATOR CARLTON:

There is also an issue about Vespas and scooters that can be modified. When you buy them, they are under the threshold for registration and titling purposes, but you can install a package. That brings them to the point where you still do not have to title them, but they are beyond what the manufacturer put on there. This issue threads through a couple others as well.

SENATOR HARDY:

We are not statutorily keeping up with what is going on in the industry. We need to statutorily take a look at whether we are accommodating all the uses of these vehicles.

DARRELL THOMPSON (Bad Ass Golf Carts):

We are a business in Las Vegas. Ninety percent of our product goes worldwide, but most of my customers are in the United States. I have customers in Florida who have not driven their cars in eight years. They buy equipment from me and then they title, license and register their golf carts with their departments of motor vehicles. It then becomes their primary mode of transportation. We are a dealer for a manufacturer out of California, which we spend an extra \$500 to have a low-speed vehicle license. When we bring these vehicles to DMV, because my company name says Bad Ass Golf Carts—our legal business name—they will not license it in Nevada even though I have an MSO stating this is a manufactured vehicle for on-road use. If you look at communities in Las Vegas, people are using these vehicles on public streets anyway. The vehicles we manufacture are used on public streets to go to the neighbor's house, take the children to the bus stop and things like that. The DMV is missing out on money and we are limiting what can be done. The laws in place right now the DMV does not honor. I cannot register a vehicle that meets their description for an on-road vehicle.

CHAIR SCHNEIDER:

I spend time in Coronado, California and two- and four-seat golf carts are the major mode of transportation there. They are licensed and I am assuming they are street legal. They do not go over the bridge, but they run all over the streets of Coronado. We should be able to do something, Senator Hardy.

EDGAR J. ROBERTS (Director, Department of Motor Vehicles):

We have listed five issues for you to review, [Exhibit C](#). We are willing to work with Senator Hardy and his constituent on these five issues. We have also included some of the surrounding states and what they do. We can come to some kind of agreement on these issues that other states are doing that would fit into Nevada's laws and we also follow the National Highway Traffic Safety Administration.

CHAIR SCHNEIDER:

We will let Senator Hardy work on this and then he can report to Senator Lee. We will now close the hearing on S.B. 179.

HATICE GECOL, PH.D. (Director, Office of Energy, Office of the Governor):

I am here to talk about the energy programs in the American Recovery and Reinvestment Act of 2009 (ARRA). If you look at table 1.ARR.A, titled, "Overview of Funding for Energy Programs" ([Exhibit D](#)), it summarizes the data from the National Governors Association (NGA) report. There are 31 funding areas in the ARRA plan. In the first column of the table is the energy funding areas. The second column is the funding level at the national level and the third column is which federal agency is going to manage these funds. The fourth column shows the recipients in Nevada. The fifth column shows the grant type and the sixth column is the timeline. These funding opportunities are in three groups, formula based, competitive grant or tax abatements and incentives. To keep my time short, I will concentrate on the first three funding areas because they come to the Office of Energy. The others are opportunities for other State entities. They would need to apply to get formula based or competitive grant funding or industry could get a tax abatement and incentives.

Before I talk about the first three funding opportunities for the State Energy Office, page 7 summarizes the opportunities in energy and green jobs programs, [Exhibit D](#). This shows the opportunities available based on the 31 funding sections. We have an opportunity to do energy efficiency, green jobs, smart grid, advanced fossil energy and renewable energy. In this table, funding opportunities are in more than one place. If it is capitalized, it means at least a portion of the funding will be available for state agencies.

On page 7, titled, "State Energy Program," is the Title IV money which is administered by the federal Department of Energy (DOE). We just received the funding opportunity announcement and guidelines yesterday from DOE. We are still evaluating the guidance and funding opportunity announcement. We already get money from DOE; this is an extension to our current program. "This is a formula grant under this program." This is the main funding that supports the State's Energy Office. Based on the guidelines, the goals established for the State energy program are: 1. Increase energy efficiency to reduce energy costs and consumption for government, consumers and businesses. 2. Reduce reliance on imported energy. 3. Improve the reliability of electricity and fuel supply and the delivery of energy services. 4. Reduce the impacts of energy

production and use on the environment. Below these four points, I also inserted a paragraph from the guidance about the main goal of the ARRA package.

The primary objective in the guideline from DOE is that states should plan for, and maximize their efforts, toward achieving the specific goal of reducing per capita energy consumption by at least 25 percent of the State's 1990 per capita energy use by 2012. This aligns with the federal requirement in the Energy Policy Act of 2005. We also have Nevada Revised Statute (NRS) 701.215 which requires us to reduce grid-based electricity by 20 percent by 2015 for the Executive Branch. The guideline says funding from the ARRA package should support current energy efficiency and renewable energy projects, but also seek sustainable programs and put in place long-term funding mechanisms such as revolving loans and energy saving performance contracting to provide lasting benefits and lead to long-term market transformation. Several states in the nation have successfully implemented this. We do not have such a revolving loan fund, but the DOE is encouraging us to establish such a program.

SENATOR TOWNSEND:

Are you reading from something different than what you handed out?

DR. GECOL:

Yes, I was reading a couple of things from the guidance.

SENATOR TOWNSEND:

Could you address what you gave us so we know what you are talking about? I am trying to listen to you, and read what you handed out, and they do not relate. This says you have an office with about \$500,000 in it that now has \$34,000,000, [Exhibit D](#). What does that mean for Nevadans? Where is the money going to go? We get \$34,000,000 that does not need any matching, even though it recommends 20 percent. You do not need it to give out grants. How much is allowed to improve your office, and how much goes to people who can use it?

DR. GECOL:

This gives us an opportunity to expand our program because it allows charging of indirect costs. The funding level for Nevada, \$34,714,000, will expand our program around energy efficiency, energy conservation and renewable energy. When the ARRA package was being discussed, we collected several "shovel-ready" projects. The amount of these projects comes to much more

than \$34 million. Now that we have the guidance, we know better what DOE is expecting state energy programs to do. The main goal is energy efficiency and energy conservation. This goal aligns with the Environmental Policy Act of 2005, which asks for a 25-percent reduction based on the 1990 energy usage by 2012.

SENATOR TOWNSEND:  
Do you have an outline or timeline for us?

DR. GECOL:  
How we are going to achieve that goal?

SENATOR TOWNSEND:  
No. Do you have a graph or something that illustrates where we were in 1990, where we have to be based on the money, and then what we are going to do?

DR. GECOL:  
I do not have it with me, but we are compiling the data.

SENATOR TOWNSEND:  
Do you have a timeline on when you are going to get the \$34,714,000? Is it a monthly, quarterly or yearly payment? Is it designated specifically for certain areas such as energy efficiency, energy education, shovel-ready projects, energy projects specific to education, government buildings or the private sector? Do you have that broken out yet?

DR. GECOL:  
Yes, the DOE is not telling us what the percentage should be. They are leaving us to manage this money. We will distribute the money based on the four goals listed, [Exhibit D](#). We should start with the primary objective, which is to reduce the energy consumption per capita. We also need to meet our goal to reduce electricity consumption by 20 percent by 2015 in NRS 701.215. I testified before regarding NRS 701.215, and the question asked was whether the stimulus money could achieve the statutory obligation. We can choose some pilot projects to meet both our federal requirements and the NRS requirements. After that we will choose some government buildings to improve energy efficiency and energy conservation as well as doing renewable-energy implementation.



SENATOR TOWNSEND:

The four goals here, [Exhibit D](#), just in Nevada, could use one or two billion dollars. You have to prioritize where to put the \$34 million. What is the process you will use for that prioritization? Will this be done entirely by your office? Will you set up a group of individuals to establish these priorities?

DR. GECOL:

We are in the process of communicating with the Executive Branch to reduce the energy consumption of state buildings. Next week we will collect data from the government buildings' operational managers to choose and prioritize a few projects.

SENATOR TOWNSEND:

Do you know every building under state ownership or lease, the number of people in them and the consumption per person?

DR. GECOL:

Some agencies have forwarded their data to us. We are in the process of collecting data.

SENATOR TOWNSEND:

When will you know the least-efficient state buildings?

DR. GECOL:

We expect to know in a week.

SENATOR TOWNSEND:

If that is your prime target, what is your secondary target?

DR. GECOL:

The secondary target is the creation of long-term funding "recognizance," such as revolving loans and energy performance contracting. The DOE is encouraging us to do this. We are looking into this type of mechanism because under the current statute, there is no such language. We are also looking at whether there is demand. We will have a conference call with our project manager from DOE as well as the "national association" on Monday and Tuesday. We will get more details then. I will be able to provide the Committee more information within a week. We received this guidance yesterday and are still evaluating it. As Senator Townsend mentioned, the shovel-ready projects that came to our office

had a lot of money attached to them, so we need to prioritize into different areas such as governmental, consumer or industrial to distribute this fund. We will be working with our Legislators as well.

Our prison system is taking advantage of energy-saving performance contracting. They recently signed a contract and the State Board of Examiners approved it in December. They will be spending \$14 million to improve less than 10 percent of the state-owned buildings. We are getting \$34 million from ARRA. We cannot improve all the state buildings, but we will choose pilot projects. This will be more effective and we will get more energy savings.

CHAIR SCHNEIDER:

If you found a building you thought should just be replaced, would you make that recommendation to the next session? Is that part of your process?

DR. GECOL:

I would work with the Public Works Board; they are part of this initiative as well, and if you conclude that, I would ask Public Works to make that recommendation. I will address energy efficiency and energy conservation.

With the ARRA, they waived the 20-percent match requirement and the 50-percent cap for "equipment" purchases. We are obligated to send an initial application by March 23, 2009. It is a simple application that includes a governor's assurance certificate as required per section 410 of the ARRA. To receive the money, the Governor will send this certification. The language for the governor's assurance certification is on page 7, [Exhibit D](#).

On page 9, is the second opportunity for the Energy Office to get money in the form of energy efficiency and conservation block grants. Under Title IV, this money is administered by DOE. The purpose of this money is to distribute funds to the state's and local government's efficiency and conservation activities. The funding level is \$3.2 billion and the majority of this fund goes to the local government. They have separated \$400 million out of the \$3.2 billion for competitive grants. The rest of the 28 percent will be distributed with the formula listed on page 9. Of the allocated money, 68 percent will go to the local government if the county has a population of more than 200,000 or if the city has a population of over 35,000; they will get the money directly under this provision. We expect to get \$21.5 million for the local governments.

Of the rest of the money, 28 percent of the \$2.8 billion will go to state energy offices. A portion of this money, which is 60 percent of the 28 percent, will be distributed to the counties with a population of less than 200,000 and the cities with a population of less than 35,000. We estimate this money at about \$8.7 million. Another 2 percent of the \$2.8 billion nationwide will be given to Indian tribes. Our estimations show Nevada will get \$600,000. An additional 2 percent of the \$2.8 billion is set aside as competitive grants for the units of local government that do not get money under the above conditions. We estimated this will be around \$600,000. These numbers are rough estimates, but DOE will determine the true amounts and communicate with us later. There are requirements for local governments, Indian tribes and the states about how we will get this money. It is application based. I have put the requirements on page 9, [Exhibit D](#), for your review.

We will have 180 days to distribute the money, if the money is coming to the State Energy Office, once "the secretary" approves the energy efficiency and conservation strategy. In other words, it is soft granted to the local governments under the condition described on page 8, [Exhibit D](#).

The third opportunity is under the Energy Efficient Appliance Rebate Program and Energy Star Recovery Funding. This is a rebate program and requires a 50-percent match from the state. If the state already has an existing rebate program, it can apply for this. This is going to be given to the Energy Office as well. Nevada has a rebate program as part of the "demand-side" management, as well as the co-ops and the municipalities who have their own programs.

CHAIR SCHNEIDER:

We are going to get the money because we already have a matching program?

DR. GECOL:

Yes, we can apply and get this money.

CHAIR SCHNEIDER:

Are we going to get \$300 million?

DR. GECOL:

Yes, \$3.4 million is our estimate.

CHAIR SCHNEIDER:

On page 9, [Exhibit D](#), it states, "68% allocated to local governments (counties with the population of 200,000 and greater and cities with the population of 35,000 and greater)," which is confusing. That is \$21.5 million for Nevada, and then you go down to the last one and it says, "2% allocated to competitive grants to units of local government or a consortia of units of local government," and that shows \$600,000 estimated for Nevada. Are those the same dollars? Are they pooled together so the very small towns get money? It seems like it is put together for the whole nation, but you have a lot of small towns in places back East and in the Midwest. Here in Nevada it is different since we have very few small towns. The smaller towns here need the money, but it is a disproportionate share.

DR. GECOL:

It does look like that but the small towns have an opportunity under the 28-percent portion, which is \$8.7 million. Of the \$8.7 million, 60 percent will be subgranted through the small towns and counties. We are working with the Nevada Association of Counties (NACO) and the Nevada League of Cities to decide how we should do this distribution because our Energy Office is supposed to monitor the money reporting and transparency. There is also the \$400 million, but it is competitive. They separate the \$3.2 billion; \$400 million is competitive based, and \$2.8 billion is formula based.

SENATOR TOWNSEND:

Could you outline who is in these components based on your Nevada estimates on page 9, [Exhibit D](#)? We know that Clark County, Washoe County, Reno, Sparks, Henderson and Las Vegas are included in this top tier. Based on population, what would each component be so we know what each one will get; the same for the \$8.7 million. Who fits into that? This Committee probably represents 90 percent of the population of the State. It is important to know where we plug into that.

DR. GECOL:

Certainly. If you look at the governor's assurance certificate language as per section 410, it is about energy efficiency and energy conservation. Commercial buildings will be judged by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, American National Standards Institute and Illuminating Engineering Society of North America Standard 90.1-2007 requirement, as well as achieving 90-percent compliance with the above energy

costs within 8 years. We have to monitor these. We need to set up a program to get this data and submit it as part of the reporting requirements.

SCOTT YOUNG (COMMITTEE POLICY ANALYST):

In section 541 of the ARRA, there are two eligible units of local government, and they are referred to as "eligible unit of local government-alternative one" and "eligible unit of local government-alternative two." As Dr. Gecol indicated, it is based on population. The eligible unit of local government alternative one includes cities with a population of at least 35,000 or one of the ten largest cities in the state. Also in alternative number one is a county with a population of at least 200,000 or 1 of the 10 largest counties in the state. If you use the latest population data, which you are allowed to do under this section of ARRA, the cities would be, in descending order of population: Las Vegas, Henderson, Reno, North Las Vegas, Sparks, Carson City, Elko, Mesquite, Boulder City and Fernley. Using the ten largest counties you would have: Clark, Washoe, Carson, Lyon, Elko, Douglas, Nye, Churchill, Humboldt and White Pine in that order.

It is important for the Committee to understand the figures Dr. Gecol referred to, where the State gets 28 percent and 60 percent of that is subgranted. That money goes to a category of local governments different than the two I just read. We currently understand these would be even smaller localities. This will make the 60 percent of the 28 percent. Dr. Gecol indicated her figures show the 60 percent for Nevada was approximately \$8.7 million. Sixty percent of that gets subgranted to local governments, but they are not the local governments I just read in alternative one or two. We think they are even smaller governments. Does that make sense to you Dr. Gecol?

DR. GECOL:

Yes.

CHAIR SCHNEIDER:

Would Lund be a local government?

MR. YOUNG:

Back to the first two categories, the eligible unit of local government alternative 1, that is a city with a population of at least 35,000 or 1 of the 10 largest. The smallest city, number 10 by population is Fernley, which is 12,673. The eligible unit of local government alternative 2, which is counties over 200,000 or one of the 10 largest counties, the number 10 county on that

list is White Pine which has a population, based on the 2000 estimates, of 9,146.

DR. GECOL:

The last time we had a conference call with our program manager from DOE, we were told they still need to meet the thresholds of 200,000 and 35,000 to get into the top 10. The top 10 cannot be below 35,000 for cities or 200,000 for the counties.

MR. YOUNG:

Not to contradict Dr. Gecol, but looking at the language in section 541 states the eligible unit of local government-alternative number one means, "a city with a population (I) of at least 35,000; or (II) that causes the city to be 1 of the 10 highest populated cities of the state in which the city is located." Without Mr. Nichols here to give us a definitive answer, I read the disjunctive to mean that it is either 35,000 or in the 10 highest.

CHAIR SCHNEIDER:

We will need to get more clarity on that.

SENATOR TOWNSEND:

Is this your interpretation, Dr. Gecol; is this photocopied from something, or is this directly from the ARRA?

DR. GECOL:

Until page 8, it is a summary from the data I compiled the from NGA's report. After that I have pieces from the guidance.

SENATOR TOWNSEND:

When you look at what we were working from, 68 percent of the \$3.2 billion goes directly to local governments. It has nothing to do with the state.

DR. GECOL:

That is our understanding.

SENATOR TOWNSEND:

Based on what Chair Schneider and Mr. Young said, that is who would get it directly. Then it says 28 percent, approximately \$8.7 million, would go to the state, whether that is your office or somebody else. Then of that \$8.7 million,

60 percent distributed to the states must be used for subgrants of local governments not eligible under the bigger program. So the states would deal with the smaller units of government. Then it breaks it out to 2 percent for Indian tribes and 2 percent to competitive grants for units of local government or consortia. This could mean smaller cities could get together and apply for a grant. Unless I am mistaken, that is the way this thing is handled. It goes directly to the counties or cities of that certain size in the big group, and then comes to the state and it is handed out to the smaller groups.

DR. GECOL:

Your interpretation is correct; that is what we received from DOE. One part goes to state energy offices nationwide. Then, applications will go from the state energy offices on behalf of small cities and counties. After that, we will subgrant this money and be responsible for reporting and transfers as required by ARRA.

SENATOR TOWNSEND:

Can we have your word that two years from now we will not be still getting phone calls because the regulations are not in place to receive money?

DR. GECOL:

That is what we are working on with NACO and the League of Cities. They have also given an administrative portion to administer this.

SENATOR TOWNSEND:

There are a lot of representatives, on both sides of the aisle, who went out on a limb on these programs. This money is for people who need it to fix an energy problem. If it gets hung up at the local level because we cannot figure out what regulation to use or—I will tell you, as Chairman of the Legislative Commission—the most infuriating thing to me is to have people not be able to get a regulation to us so the rules are known. It is important that the public, local government or city manager, knows the rules as soon as possible so they know what to count on. This is the biggest thing in government I have seen since the space program. We want to make sure the public knows exactly what is available to them and why, so they have the guidelines. Do not drag this out. It is better off you make a decision and be wrong, because at least people know the guidelines.

DR. GECOL:

We are obligated to distribute this money within 180 days after the U.S. Secretary of Energy accepts the plan. Part of the plan though, is that local governments have an opportunity to make a plan. That is part of the application process.

CHAIR SCHNEIDER:

The Legislative Counsel Bureau has slightly different numbers they have crunched. Since the numbers vary, this needs more work.

MR. YOUNG:

As Dr. Gecol has noted, there is a large amount of uncertainty. The fact we have a number that differs somewhat from Dr. Gecol's is of no real significance. I hope no one quotes these numbers as official figures because we are working from the same incomplete data as Dr. Gecol. I am mentioning this only for the purposes of indicating the relative size Nevada would get. Based on the 28 percent, of which 60 percent has to be subgranted, our figures show Nevada would receive, under the 28-percent provision, about \$9.8 million. When you subgrant out 60 percent of that, it leaves about \$5.9 million for small local governments and about \$3.9 million for the State. If you look at Dr. Gecol's \$8.7 million, the State's residual share would be around \$3 million. The State's portion of the 28 percent is actually very small in the end.

SENATOR TOWNSEND:

What was your total number?

MR. YOUNG:

The total number for the 28 percent, based on the estimates we did several weeks ago, was \$9.8 million. That means 60 percent of that would be about \$5.9 million which would go to local governments. This leaves about \$3.9 million for the State under our estimates.

CHAIR SCHNEIDER:

I will now open the work session on S.B. 134.

**SENATE BILL 134**: Revises provisions concerning the increased penalty imposed for certain traffic violations occurring in work zones. (BDR 43-180)



SENATOR LEE:

This bill has gone through a working group. We struck out the entirety of section 2 which had Senator Coffin's original changes. It is now a temporary traffic-control zone bill. It talks about a traffic-control plan and temporary traffic-control permits. Skip Daly has spearheaded this effort. He has the Regional Transportation Commission of Northern Nevada, the Regional Transportation Commission of Southern Nevada, the Northern and Southern Chapters of the Associated General Contractors (AGC), Sprint, Nevada Energy and others who do temporary work on the roads involved. They have come to a consensus that they have a good piece of legislation here.

RICHARD DALY (Laborers Union Local 169):

Once Senator Coffin realized there was not an appetite to lower the penalty, he let us go ahead and use this bill to improve safety. With that in mind, we have a proposed amendment ([Exhibit E](#)).

We are amending section 1 of the original bill by inserting "or other activity requiring erection of temporary traffic control zones" after the words "construction or maintenance," everywhere it is used. We want to be inclusive for all instances where temporary traffic-control zones are put on the roadway, not just for construction or maintenance.

We deleted the entire part of section 2, subsection 1, paragraph (a) in the original bill and worked off the amendment. After the words, "In an area designated as a temporary traffic control zone in which construction, maintenance or repair of a highway," we added, "or other activity requiring the erection of temporary traffic control zones." That concept came from Clark County. They were concerned there would be people on the roadway thinking it only applied to construction work, but there would still be people in the work zone doing other maintenance work. Entities like Southwest Gas and AT&T are frequently on the roadway, but not necessarily doing construction. This clarifies that it covers all temporary construction zones erected on a highway. The change of "who" in the first section was original language from the Legislative Counsel Bureau, as was the change from, "shall be punished," to "the appropriate court shall punish the person."

In subsection 3 of the new section 2, we are changing "governmental entity" to "public body." I do not think there is a definition of a governmental entity in the NRS. The rest of the change in subsection 3 of the new section 2 says anytime

a public body now, “approves a temporary traffic control plan or issues a temporary traffic control permit to erect a temporary traffic control zone on a highway, shall cause to be erected” and we took out the reference to specific types of work because when we said, “or other activities,” in the previous sections we do not need to specify that in this section now. It is anytime they issue a temporary traffic-control permit, approve a plan, designate an area as a work zone, they shall cause the double penalty signs, the signs at the beginning and the signs at the end, to be erected.

The new subsection 4 in section 2 is to define highway for purposes of this section. Highway, under NRS 484.065, says any roadway for the public use or public conveyance, so it covers all of the streets and freeways. Whatever designation you want to call it, under that definition it is covered. When we changed from governmental entity to public body, we wanted to give that a definition so we knew who we were talking about. We took the definition of public body from subsection 14 of NRS 338.010.

When the temporary traffic-control zones are erected, there are two instances where putting up the double penalty signs and various things is probably not feasible or needed. We are not requiring the signs to be erected in a temporary traffic-control zone erected in an emergency or a zone erected in a single-family residential highway where the posted speed limit is 25 miles per hour or less. You can still get the double penalty in those areas and you still have to get the work zone permit to erect the traffic control, but the agency issuing the permit does not have to require the double penalty in those two situations.

We amended subsection 6 in the new section 2 to clarify that you are not relieved of any criminal liability or the increased penalty because the signs are not erected. The requirement under subsection 3 is deleted; it says if you injure somebody in a temporary traffic-control zone or you cause property damage over \$1,000 in a temporary traffic-control zone, you will get the double penalty. This language includes all work or activities requiring the erection of temporary traffic-control zones. It increases the safety of anybody in those zones. The double penalty rules we have are—there is a pocketbook type of fear we have going—to condition people. We do not want people guessing whether there are workers present or not. We want people to be conditioned when they see the traffic-control zone to slow down.

CHAIR SCHNEIDER:

On the second page of your proposed amendment, [Exhibit E](#), under subsection 5, paragraph (b) it says, "A temporary traffic control zone erected on a single-family residential highway where the posted speed limit is 25 MPH or less." Mr. Young pointed out that single-family residential highway is probably not a defined term in NRS.

MR. DALY:

We assumed the Legislative Counsel Bureau would help us with this language. The question came from the southern chapter of the AGC. They said what if a temporary traffic-control zone is being put up in front of a multistory condominium project or facility in Nevada. That is considered residential. Is that the type of highway we were trying to address? No, it is not. If there is a better way to identify single-family residential streets, not condominiums generally in the downtown areas with other traffic conditions, we would be happy.

CHAIR SCHNEIDER:

I am sure the Legal Division will have a better way of making this clear.

SENATOR LEE MOVED TO AMEND AND DO PASS S.B. 134.

SENATOR NOLAN SECONDED THE MOTION.

SENATOR CEGAVSKE:

The original bill has a fiscal impact for local governments and the State. Does this amendment remove the fiscal note?

SENATOR LEE:

It does. It is incumbent upon the contractors now to get the permits, do traffic plans and those kinds of things. The teeth was the fining and that stuff which was taken out in section 2.

SENATOR CEGAVSKE:

Is this down to the guts of the real issue Senator Coffin was concerned about?

SENATOR LEE:

This bill has morphed into a completely new bill. All Senator Coffin's ideas are basically gone. This was a vehicle so these people could straighten up some rules they do not have properly defined.

SENATOR CEGAVSKE:  
Senator Coffin was fine with that?

SENATOR LEE:  
He indicated he would be happy with anything we wanted to do with the bill that made it better for everybody.

SENATOR TOWNSEND:  
The contractors that do this kind of work, I assume, are the four or five larger ones in the State. Did you talk with them?

SENATOR LEE:  
I am a contractor, but if I do not have an A-2 license, I cannot work in the street. It is well defined who will do this work or who has the ability to work in rights-of-way; Sprint, NV Energy and those types of entities.

SENATOR TOWNSEND:  
Do we have all those groups?

MR. DALY:  
The current requirement is if you erect a temporary traffic-control zone on a highway, and highway covers them all, you are required to get a permit from whomever has jurisdiction over that roadway. If you try to put up a traffic-control zone on a Nevada Department of Transportation (NDOT) road, you need to have permission from NDOT; the same thing applies to Clark County, Sparks, Reno or whoever the public body is. It does not affect any of that part of it. We were going to have a permit required, and have a penalty if you do not, but there were too many issues. Not that people were not in favor of it, we just could not get it done. The requirement for the contractor or the private entity to set up a temporary traffic-control zone on any highway already exists and it exists under the purview of the local government. They require you to get it. It does not change any of their requirements on that.

CHAIR SCHNEIDER:  
The motion takes in that the Legal Division will look at the wording and bring it back to us.

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SENATOR LEE:

If it is just a matter of stating how those two words should be, I do not think it should come back to us.

THE MOTION CARRIED UNANIMOUSLY.

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CHAIR SCHNEIDER:

We will close the hearing on S.B. 134 and open the hearing on S.B. 188.

**SENATE BILL 188**: Establishes the Solar Hot Water Heating Systems Demonstration Program. (BDR 58-379)

Senate Bill 188 creates a rebate program for solar hot water heating systems modeled on the solar photovoltaic program the Legislature first established in 2003. Heating hot water in a home accounts for 13 to 17 percent of the utility bill. That is the third-largest energy expense in the home. Solar hot water heating systems can reduce fuel usage for water heating by as much as 75 percent. Most hot water heaters burn natural gas; avoiding use of natural gas reduces carbon dioxide. This aspect will be even more important when the U.S. Congress adopts the carbon regulation scheme. Using less natural gas helps reduce the overall price for natural gas even without carbon regulation. One study indicated using solar hot water heaters in California could save more natural gas than any other technology in both residential and commercial buildings. A companion study in California indicated solar hot water heating could save 5.2 percent of statewide natural gas consumption. Another study indicated that saving 5.1 percent would reduce northern California's wholesale natural gas rate by 27 percent and southern California's natural gas rates by 37 percent. That could save California consumers \$23 billion in the next few years. These dollar amounts may be somewhat lower since the study was done in 2006, and fortunately natural gas prices have remained low and even fallen in some cases. However, this data indicates the magnitude of the possible savings. If solar hot water heating systems were fully deployed in California, it would have the same effect as removing 1 million cars from the highway. A single unit on a house can avoid more than 50 tons of carbon dioxide over a 20-year period.

Solar hot water heating systems are one of the most cost-effective uses of solar power from a consumer standpoint. The payback period is less than for a solar photovoltaic. Residential units are in the \$6,000 range, depending on the amount of water used and other factors like location of the house. Assistance is still needed with up-front costs to make them affordable and to increase production so unit costs decline. With the new green jobs, this can provide a lot of jobs in Nevada for the photovoltaic systems. It also keeps money for fuel from flowing out of the State and recirculated here in Nevada. Some \$11 billion a year is spent on Nevada's total energy. Several handouts with additional information are available for you ([Exhibit F](#), original is on file in the Research Library, [Exhibit G](#), original is on file in the Research Library, [Exhibit H](#) and [Exhibit I](#)).

There was a provision in S.B. No. 437 of the 74th Session and now in NRS 704.741 that provides, "The Commission shall require the utility to include in its plan an energy efficiency program for residential customers which reduces the consumption of electricity or any fossil fuel. The energy efficiency program must include, without limitation, the use of new solar thermal energy sources." This provision was incorporated from Senator Dina Titus's bill, S.B. No. 427 of the 74th Session, and made part of the broader committee bill, S.B. No. 437 of the 74th Session. The provision in NRS 704.741 is part of a three-year, integrated-resource plan process. We want the Public Utilities Commission of Nevada (PUCN) and the industry to process legislative directives carefully and thoroughly, but we are now two years down the road and still have no program for these new solar thermal energy sources which are in effect, solar hot water heaters. I understand there is a group working on a plan required by NRS 704.741. It is also my understanding that the portion of the plan covering NV Energy in southern Nevada may be close to completion, but the portion of the plan covering northern Nevada may not be ready until 2010. That would be three full years after the enactment of S.B. No. 437 of the 74th Session. That is the reason, in part, for [S.B. 188](#). There is a lot of conversation that could have occurred in the past two years and still more to be lost if we wait another full year for part of the State to be covered. At least 12 other states have solar hot water programs and so do many local governments and utilities. Hawaii enacted a law last year that requires most new, single-family dwellings built after January 1, 2010, to have solar hot water heaters.

Increasing demand, driven by these state and local initiatives, is resulting in new technology and innovation by the industry. As the article I have provided,

[Exhibit H](#), about GE's new line of solar hot water heater demonstrates, [S.B. 188](#) will help move Nevada forward as an energy-conservation leader and add to in-state energy jobs while benefiting our environment and economy. Dr. Wiel from the Southwest Energy Efficiency Project could not be present today but we have his comments in support of [S.B. 188](#) ([Exhibit J](#)).

ROSE MCKINNEY-JAMES (The Solar Alliance; Energy Works Consulting):

I am happy to offer general support for this measure and I appreciate the opportunity to work through some of the details. I have been active in advancing solar technology and some solar thermal opportunities in the past with Corporation for Solar Technology and Renewable Resources (CSTRR). We had a small demonstration effort with Pulte Homes in southern Nevada to advance these technologies. We found there was demand for these technologies within the housing industry. Dr. Bob Boehm continues to be active in a variety of efforts with the home building industry to advance these technologies. I have been working with the National Renewable Energy Laboratory in a similar fashion. There is a strong interest to do this for many of the reasons you outlined in your opening statements. I would defer to those who are specifically referenced in the bill, the PUCN, the gas utility, the electric utility and the Nevada Renewable Energy and Energy Conservation Task Force, for their comments on how to make this measure work. I am willing to work with others to make appropriate modifications to the bill.

JASON GEDDES (City of Reno; Nevada Renewable Energy and Energy Conservation Task Force):

The City of Reno has adopted a green priority to get more of these opportunities out to citizens. This program will greatly advance that effort.

On behalf of the Task Force, we have not taken a formal position. We discussed it at our Task Force meeting yesterday and have a couple of suggestions for the bill as you amend it. One would be the same language we talked about on SolarGenerations; allowing the Task Force to remove people as opposed to the Commission, to accelerate the installations as they go forward and people who do not have the ability to go forward. We also wanted to look at the fee structure. The fee is in the NRS section here, but it might be better if it is dealt with at the regulatory level by the PUCN.

My personal opinion, not representing the Task Force, is the solar hot-air systems work very well in the northern climates; I would like to see the bill expanded to include that.

CHAIR SCHNEIDER:

Yesterday we saw a map of the solar potential of Germany and the United States. When they showed the United States, we did not have an area in the United States as bad as Germany, yet they are using solar power all over. So, it will be good for northern Nevada, too.

JOE JOHNSON (Toiyabe Chapter, Sierra Club):

I have been active with solar thermal in both the advocacy and the regulatory process. As the past president of Sunrise, the northern Nevada chapter of American Solar Energy Society, we have demonstrated these programs in the past. In my neighborhood, I have three units within a block that have been there for 30 years and are still operating. There were difficulties in the past, but the technology has advanced. There are millions of these units being produced and installed around the world; particularly in Mediterranean countries and Japan. As the Chair mentioned, the solar potential in Germany is much less than anywhere in the United States and yet they still have significant photovoltaic infrastructure. I would like to work with the working group on this.

Not speaking specifically to any section of the bill, but the SolarGenerations program has not been as successful as we would have liked. Looking at the application approval process, it needs to be moved closer to the time people can get a rebate for the program. Perhaps what should be in there is a deposit or fee, a mentioned ability to remove applicants, or time to perform. I support the bill and the concept.

KYLE DAVIS (Policy Director, Nevada Conservation League):

The Chair summarized all the arguments in favor of this bill really well. We are in support of this bill. It is a step forward in protecting our environment.

RUSS CARTWRIGHT (Ideal Solar Solutions):

I have provided a handout for the Committee to view ([Exhibit K](#)). I have been in the solar industry since 1978. Between 1978 and 1984, P&S Hardware and I installed over 550 solar domestic hot water and pool heating systems. I can show you today systems I installed 25 or 30 years ago that are still working fine. I am 100 percent behind solar and solar hot water. I would like to work



with the working group, I can provide history and input that would help the process. I like the idea of S.B. 188. I know the different utilities and gas companies are coming up with their own plans, but I like this bill because if the different entities come together with their own plans, it might add confusion and time to bring all the plans together to make one plan that would have continuity. I like the idea of the legislation taking this on, bringing the initiative forward and then having them adopt it.

CHAIR SCHNEIDER:

You have some solar stuff out there that is 20 to 25 years old and working just fine. Is the new stuff more efficient than the old?

MR. CARTWRIGHT:

There basically have not been any changes other than the mechanics of the pumps and the controllers; the things that turn the pumps on and off. Otherwise it is copper, glass and aluminum. The glass has a little less iron in it than before, the insulation is a little bit better, but it is just a thin copper absorber with a black chrome finish on it. There have not been many advances. Thirty years ago there were evacuated tubes, we have them on the market again and people are touting them as the latest and greatest thing. They are a good product, they have certain applications. This is not like the photovoltaic industry, where when they started manufacturing in 1953 they were 4- or 5-percent efficient, and even though they have not made huge leaps and bounds, they are now in the 14- to 20-percent efficiency range. Solar thermal has not made those huge jumps because there is not much to change. Some of the same manufacturers that were in it then, like Heliodyne and SunEarth Solar Thermal Products, started in 1976 and are still manufacturing today. They made it through the big slump after the tax credits went away and their products are basically the same, other than upgrades on better glass or anodizing on the aluminum.

I agree with Mr. Geddes's comment about the solar hot-air collectors. There is no reason why everybody should not have one on their house if they have any kind of a south-facing wall or roof, or even east- or west-facing wall or roof. You will see in my comments that it is very inexpensive to install them, [Exhibit K](#). It would be great for any building open during the day because it provides heat while someone is at an office, day care or something along those lines. It would also be worth looking at for low-income housing because it is inexpensive to install. The units right now cost about \$3,500 to install. They are photovoltaic powered, so they power themselves. They do not use any

electricity and maintain the heat in about 700 square feet per unit. You can put in multiple units to heat more area. You could more or less eliminate heating costs, depending on the square footage during the day when the sun is out.

I have one on my house comprised of 240 recycled cans stacked on top of each other. You pull air in from the house, blow it up through the cans and then push it back into the house. On a good sunny day, even if it is 30 or 40 degrees outside, I will pull into the unit 65-degree air from floor level of the structure and blow it back into the house at about ceiling level at 140 degrees. It is just soda cans painted black.

SENATOR LEE:

Are you still using the bladder systems for the loop systems for swimming pools, or have they disregarded that type of rubber bladder?

MR. CARTWRIGHT:

I never installed one of those when I was doing it 30 years ago and I have not since. Thirty years ago there was a great product called "Solar Roll" and it was an extruded rubber mat that we used and with construction glue we glued it to the roof. I had systems that roofers pulled off 25 years later that had been on the roof just fine.

SENATOR CEGAVSKE:

How long ago did you install your solar hot-air collector?

MR. CARTWRIGHT:

My solar photovoltaic system has been in place for three summers. The solar hot-air collector has been in for two years. My solar domestic hot water system was installed last summer. Yesterday was a clear day and I had 80 gallons of 150 degree water. My wife, three daughters and I can all shower with that temperature and my water heater will not fire.

SENATOR CEGAVSKE:

Does the polyvinyl chloride piping crack or have problems because air is going through it instead of water?

MR. CARTWRIGHT:

Solar hot-air collectors are either all cans or sheet metal so there is no issue of degradation or anything breaking down. Mr. Geddes has a unit that looks more

like a door or large black window and can be built into the house. It is more aesthetically pleasing.

REBECCA WAGNER (Commissioner, Public Utilities Commission of Nevada):

The PUCN is not taking any formal positions on bills this Session, but we are in favor of this one. I would like to work with the group to modify the language. I have seen what is good and bad about the SolarGenerations Program. We want to avoid those problems and make sure we make a good program.

DEBRA GALLO (Southwest Gas):

While I signed in as neutral, we are supportive of this concept. We are currently putting together our first natural gas conservation, energy-efficiency filing pursuant to regulations approved by the PUCN. One of our projects is a solar thermal project. We are including solar thermal water heating and the solar thermal hot-air collectors. As a company, we have a demonstration program in Tucson with solar thermal water heating.

We are supportive of the concept but have some concerns and questions with some of the details like specificity of the process and the dates. In section 23 where it talks about the savings, they are all kilowatt-hour savings and not therms savings. We are not sure where that issue is going. Finally, the portfolio savings—the energy credits—because we are not under a Renewable Portfolio Standard that would have to be worked out as to what we would do with them and credit back to our customers. We look forward to being part of the working group.

JUDY STOKEY (NV Energy):

I would like to echo what the last two speakers have said. We have a program that will be filed in our resource plan in July, but we would like to work in the working group and get something done.

CHAIR SCHNEIDER:

I did not go over the bill in detail today because it is my desire that we put together a group. I would like Rebecca Wagner to be in charge of the working group. You can work through everything and then bring back this bill with any proposed changes. We will go over it line by line then.

RAY BACON (Nevada Manufacturers Association):

I am not representing the Nevada Manufacturers Association for this bill, but let me say, "been there, done that." I put in a solar hot water system in 1978. I put the hot water tank in the basement where I was replacing the existing one. I had a two-story house with about 34 feet of lift; it was not what the old solar hot water systems could do. If you have a two-story house, the existing solar hot water systems are really marginal. I went through six bladders. When it was working, it was great. I could pull down about 214 degree hot water off the roof. I had to put in a tempering valve because I was getting more heat than I could handle. At one point the specialized solar hot water heaters, with an extra set of inputs and outputs to heat up the water, went totally out of production. When mine finally failed, which was 15 years or more, I could not find a replacement at that point so I pulled the whole system. If I had a plumber maintaining my system, I would have lost money on it. I got to the point where I could swap out a bladder quickly when I could get them. The last bladder I got took 7 months because, when the tax abatements went away, all the suppliers went out of business over a 6- or 7-year window. If you needed parts, you were in a world of hurt. This time, from a governmental standpoint, we have a serious long-term commitment for solar energy and all I can say is, "God, I hope so."

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CHAIR SCHNEIDER:

With no more business before the Committee, I will adjourn the Senate Committee on Energy Infrastructure and Transportation at 10:08 a.m.

RESPECTFULLY SUBMITTED:

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Josh Martinmaas,  
Committee Secretary

APPROVED BY:

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Senator Michael A. Schneider, Chair

DATE: \_\_\_\_\_