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GOVERNOR'S OFFICE OF ENERGY

MINUTES
New Energy Industry Task Force

September 27, 2016

The New Energy Industry Task Force (NEITF) held a public meeting on September 27, 2016,
beginning at
9:05 AM. at the following location:

Legislative Counsel Bureau
401 S. Carson Street, Room 3138
Carson City, Nevada 89701

The meeting was also available via videoconference at:
Grant Sawyer State Building
555 East Washington Avenue, Room 4412
Las Vegas, NV 89101

1. Call to order and Roll Call: The meeting was called to order at 9:05 AM by Chair Angela Dykema. The agenda item was opened up for roll call and a quorum was confirmed.

The following Task Force Members were present:

Task Force Members

Angela Dykema, Chair
Danny Thompson, Member
James Oscarson, Member
Josh Nordquist, Member
Kathryn Arbeit, Member
Kyle Davis, Member
Matthew Tuma, Member
Patricia Spearman, Member
Beth O'Brien, Member
Jeremy Susac, Member

Task Force Members Absent

Starla Lacy
Tom Ewing

2. Public Comment and Discussion: Chair Dykema opened Agenda item number 2 for public comment.

Bill Wood spoke about a new tool to clean the yard or house called Peace Broom. He thanked Governor Sandoval, the Clean Energy Project (CEP), and the Task Force for their assistance with sustainable energy production and for making major impacts in helping to bring businesses in Nevada to the 21st century.

Mary Cable, research faculty at the Desert Ranch Institute (DRI), highlighted the NSF Solar Nexus Project. This is a collaborative between DRI, the University of Nevada Reno (UNR), and the University of Nevada Las Vegas (UNLV). It is a five year project that looks into the linkages between water, solar, and the environment in Nevada. The purpose is to advance technologies on solar efficiency, minimize water usage, and minimize the impact on Nevada landscape.

Charlotte Cox provided comment in support of the Clean Power Plan (CPP). She would like to see dirty coal eliminated, such as the Valmy Power Plant, and a mandate for all buildings to be energy efficient. She believes improvements will come from educating all people, including builders in Nevada.

Stephen Hirsch, an electrical engineer, spoke on behalf of the CEP. He stated that geothermal is a renewable resource. It uses heat from the Earth to generate power, lowers temperatures to heat and cool homes, dries vegetables, processes paper, and dries lumber. It's inexhaustible, and essentially limitless for years to come. Today we have approximately 3,700 megawatts of installed capacity, of which 2,700 megawatts is net generating capacity, including two 70 megawatt plant expansions recently in Nevada. We're the largest geothermal user in the world. Globally about 13,300 megawatts are installed across 24 countries. One of the biggest advantages of geothermal is that it's available 24/7 through the constant flow of heat from the Earth. It gives geothermal a much higher capacity factor – which is the time on line - than solar or wind, which must wait for the sun to shine or the wind to blow. This means that a geothermal plant with a smaller capacity than a solar or a wind plant can provide more actual delivered power, and has no specific ties to fluctuating fuel costs.

Kevin McGee discussed the importance of the economic development in Nevada. He believes policies to help Nevada become more energy efficient will generate tremendous economic benefits. He also discussed national security and the important role solar panels on roofs of homes play in developing a more resilient electric grid. He also added that Nevada should be a leader in working to reduce foreign oil imports.

John Friedrich spoke on behalf of Climate Parents expressing their support for several recommendations made by the Task Force. They encouraged continuing to implement the CPP, supported the recommendation to pass legislation requiring NV Energy to spend 5% or more of their demand side management spending to help low income Nevadans become more energy efficient, and supported the idea of community solar in Nevada.

Brian McAnallan, representing the City of Las Vegas, supported the majority of the recommendations but asked to see further engagement from building officials.

Jeremy Susac stated that three municipalities and three counties in Nevada have already adopted the Energy Rating Index.

Mr. McAnallan said that they were aware and they would just like to reiterate the importance of engaging the building officials.

Mr. Susac responded that the Southern Nevada Homebuilders would be speaking about this engagement later in the day. He further stated that Carson City, Fernley, Reno, Sparks, counties of Lyon, Storey, and Washoe were amongst those who have already adopted the Energy Rating Index.

Josh Griffin spoke on behalf of Solar City and spoke about the Governor's Executive Order and expressed Solar City's support for the recommendations being made today. He did state they were concerned with recommendation number 5, the proposal to consolidate regulations on the DG industry. He pointed out the regulatory schemes and the fact that Solar City strongly supports consumer protection.

Steve Seroka discussed national security and how dependence on a single source of energy puts our nation at risk unnecessarily. He commended the Governor and the Task Force for all of their work and encouraged them to develop legislative incentives and policies that reward the creation and adoption of new energy technologies. He further discussed tactical points on the battlefield and military operations. He also stated that it can be argued that our dependence on a single source of energy is the reason we are engaged in combat operations. He encourage the Task Force to continue their support for clean energy solutions that will re-establish Nevada as a national leader in renewable energy.

Louise Helton discussed the current oversight and enforcement of some of the NRS laws governing solar contractors. She also went over Contractor's Board requirements and the recourses consumers have should they not be satisfied.

Gordon Elsarelli spoke about his family's electrical supply company and the hardships it has undergone since the Public Utilities Commission's (PUC) decision regarding net metering. Their sales have dropped 90% and without solar installations, their investment in inventory will be lost. He expressed their support for all proposals that bring the residential solar industry back to Nevada, specifically the minimum bill proposal.

Duane Malone and Matthew Alexander spoke about their product, ColdBox. Providing clean, drinking water, food storage, and electricity.

James Katzen stated that we need to involve, encourage, and empower the public to become a leader to the world and an example for clean energy.

Chandler Sherman highlighted the importance of ensuring that any jobs that are brought back be permanent and not just temporary. He would like to see a long term solution and supports the minimum bill proposal as well as the proposal to evaluate the costs and benefits of solar. He also discussed the value of solar with regards to societal benefits, health benefits, clean air, environmental benefits, and economic development. He asked that recommendation number 5 not be passed which would take away authority from the two agencies that are currently regulating the solar industry taking away authority from the experts.

Joe Booker has been employed in the solar industry for two years and he described his experience with all the changes in the industry. He thanked the Task Force for their work changes in the horizon.

Larry Fosgate discussed the many changes to solar around the world in the past 30 years. He also spoke about class I railroads and electrifying freight rail. He described all of Nevada's resources and urged the Task Force to back a Green Bank.

Nancy Deekman Mafini asked that Nevada put in place a robust structure to encourage the availability of alternative energy sources that support a competitive, open market for manufacturers and installers of all forms of alternative energy. She would like to see solar be financially viable for all.

Chair Dykema thanked them all and closed Public Comment.

3. Review and Approval of Minutes: Chair Dykema opened Agenda item number 3 and asked for any correction or additions to the meeting minutes from the meeting in July. A motion was made by Matt Tuma to approve the minutes, it was seconded by another Task Force member.

The motion carried and closed agenda item number 3.

4. Geothermal and Domestic Resources: Chair Dykema opened agenda item number 4, she invited Senator Spearman to present her proposal related to geothermal development, including a short presentation by Rich Perry from Department of Minerals.

Rich Perry started his presentation and stated, what has made our State a viable place to explore and produce geothermal power is the basin and range province, and the relatively shallow crust that we have here that has resulted in high heat flows from the ground and a high geothermal gradient as one drills deeper into the Earth in Nevada. The original exploration for geothermal in the State of Nevada was initially focused primarily on areas where there was hot springs. Hot springs are the surface expression of where you typically have a geothermal system where there is a fault-controlling structure and hot rock down below, and the water is moved through the rock and heated and comes to the surface there. In the last ten years or so that has evolved into more exploration for water called blind geothermal systems. Blind geothermal systems are systems that do not have hot springs at the surface, and those are explored for using sophisticated geophysical methods by the geothermal companies here in Nevada, airborne methods, and also down-hole geophysical methods.

The procedure that's typically used by geothermal companies to explore after they have identified a target is the drilling of what's called a temperature gradient hole, and we permit those in the Division of Minerals, and those are generally narrow bore holes that are drilled to a thousand feet or less, generally do not penetrate the groundwater, and they look at the gradient of the heat in that using various geophysical methods to see how hot it's getting as they get deeper, an indication of a possible geothermal resource. If they're successful in finding something that they have determined is geologically interesting, then they drill deeper production wells which are larger diameter to test the capabilities of the geothermal reservoir. Uses of geothermal energy in Nevada is not all power generation, initially in fact it was heating and cooling of buildings and industrial drying processes.

In a binary geothermal plant hot water comes up, it is passed through heat exchangers where it heats emotive fluid. That emotive fluid boils at a lower temperature than water does. Those are typically compounds of isopentane or butane or the compound Ru 134. That gas then spins a turbine and the gas, after it spins the turbine, goes through the condensers. Those are the big things you see when you're going through Reno, the big fans up there or the condensers, and that liquefies it back in a closed loop, and the geothermal fluid that has been pumped up is then returned to the ground. So there's efficiency from a water standpoint there, as water that comes up has the heat removed, and it's returned to the reservoir.

The area of active geothermal exploration in the State of Nevada right now, is a fairly tight area - located on the Churchill and Pershing County line. These are areas where actual production wells are being drilled and those are the Dixie Valley area - Dixie Hope is the actual target there - the Tungsten Mountain area where Ormat is drilling a development field, and the Devil's Canyon, Carson Lake, and Forge area near Fallon. An interesting plant hybrid facility, the Enel Green Energy geothermal plant, which was first put on line in 1987 added several years ago solar panels to the plant facility, and took advantage of the fact that the grid for that was already existing. So we're starting to see that. That was the first hybrid plant built in the State.

As the geothermal producers have told me, a lot of the cost of the geothermal plant is the transmission capacity to run transmission lines from one of these plants across the typical desert landscape in the State of Nevada is about a quarter of a million dollars a mile once you've gotten through with all the permitting. So the location of the transmission grid in the State of Nevada, to some extent, drives the economics of the areas that these companies are interested in to do exploration. The I-80 corridor has a pretty well-filled in grid there. You can see in the Northeast part of the State that much of that was driven by the mining industry, as their plants were connected over the years.

Assemblyman Oscarson asked whether there were no southern areas that have access to geothermal or whether there were any plans to look in those areas.

Mr. Perry stated that there haven't been any permits issued down there and he was not aware of any exploration.

Assemblyman Oscarson said that there is a high school in Pahrump that is geothermal.

Senator Spearman then moved on to her presentation by stating that we need to look at how we cultivate and exploit all of our renewable resources. She stated that we have several towns and areas up North that have been significantly impacted by the cyclical or the cycles of prosperity and non-prosperity with respect to gold and other minerals, and so one of the things that we might look at doing is how do we take some of the existing mines and repurpose them so that they become part of our base load here in Nevada and produce geothermal energy. Geothermal boosts jobs, geothermal power plants employ about 1.17 persons per megawatt. Add in related governmental administrative and technical jobs, and the number increases to more than 2. Economic boost. Over the course of 30 to 50 years an average 20 megawatt facility will pay nearly 6.3 to \$11 million in property taxes, plus 12 to \$22 million in annual royalties 75 percent of these royalties, which is 9.2 to 16.6, go

directly back to the State and County. Geothermal power is locally produced and can offset electricity that's currently imported into the State. Geothermal provides near zero carbon emissions. The geothermal flash plants emit about 5 percent of the carbon dioxide, 1 percent of sulfur, et cetera, and so as you can see, that really reduces our GHG gases, and it also reduces our carbon footprint. Geothermal power can provide consistent electricity throughout the day and the year, continuous base load power and flexible power, to support the needs of variable renewable energy resources of wind and solar. And geothermal is a sustainable investment.

Using renewables like geothermal resources avoids price spikes inherent in fossil fuel resource markets, and geothermal energy is an investment in stable, predictable cost. Investing in geothermal power now pays off for decades to come. And as I said before, I believe that geothermal provides for us an opportunity to expand the use of our natural resources. And as of 2013, even though SB 123 was really good for the environment and it's something that I'm glad we committed to, what it also did in essence was it left us with one base load, one resource for our base load, and most people don't like to be left with one of anything, and there is no backup. And so as we move forward in exploiting all of our renewable energy resources, I think that it's very important that we include geothermal in the discussions, because it is a resource that is underdeveloped, if you will, and we can do more with it than we already have, and it also has a lot of possibilities for those communities that are literally languishing because of the cyclical nature of mineral exploration.

Chair Dykema closed this agenda item and moved on to agenda item number 5.

5. Energy and National Security Presentation: Senator Spearman continued with her presentation as part of agenda item number 5.

Senator Spearman began her presentation by stating that she thinks that we don't really look at what it costs in lives, not just dollars but in lives, and what it costs in terms of providing a secure net for our national security. If we don't begin to look at national security as one of the premier progenitors of all of these discussions, then I believe what will happen is we will also leave ourselves vulnerable to attacks by very determined enemies. We only have to look at some of the cyber-attacks that have happened recently in the commercial world, we look at the cyber-attacks that have even happened in the political world, and that should alarm us. If they can do a successful cyber-attack at those entities, we have an aging grid, and if we don't begin to look at how we modernize the grid, incorporate renewable energy and resources into that, then what we are doing is, is not just a matter of if, it's a matter of when. I would like to direct your attention now to a short vignette that was produced by the Truman National Security Project. (Video played).

After the video was played, Senator Spearman stated I don't think that it's a matter of what is the least we can do, I believe it's a matter of what is the most we can do. And as one of the elected officials that will go back to Carson City next February, I'm committed to making sure we do all that we can so that not one more soldier, not one more sailor, not one more marine, not one more service member has to give his or her life to satisfy our appetite for the current paradigm of energy production. How committed are you?

Chair Dykema thanked Senator Spearman for her presentation and directed the Task Force members' attention to page 6 in the work session framework containing the specific policy

recommendation that Senator Spearman submitted. A discussion and vote on the recommendation began. Chair Dykema explained that the policy recommendation Senator Spearman was talking about is to expand geothermal projects using existing mining resources. It would expand the potential public and private partnerships where appropriate, and develop a plan of action to bring closed or closing mines into the new Nevada energy industry as part of the State's renewable energy resources.

Senator Spearman added that we have 61 mines that are in some phase of temporary closure, permanent closure, or what they consider abandoned. She would like to repurpose those mines to help in an economic recovery. The proposed legislation would put us on a path to expanding the use of geothermal, help us help those communities to recover economically, and help us begin to put in place legislation and education for everyone.

Kyle Davis asked if we know which of these sites have overlap with potential geothermal resources.

Josh Nordquist added that there are a lot of geological similarities between the production of rare earth minerals and the existence of geothermal resources. The existence of fluids, heat, and pressure is what creates a lot of these rare earth minerals, so I do believe that there are a lot of similarities that would at least lead to an assumption that it's likely that a lot of the mining areas have a geothermal resource. There is a good opportunity here for the idea that these lands, which have already been through some level of permitting process, some level of due diligence, whether it's an environmental review, have gone through a, I'll take the assumption they've gone through the EPA process of determining what impact the operations would have on the environment, and also operating under the assumption that renewable energy would create less of an impact than a mining operation typically.

Senator Spearman said that the purpose of her legislation is to create the highway that gets us on a path of expanding geothermal resources in the State because it's necessary. Geothermal is a viable base load, and it's irresponsible of us if we don't look at how we might expand its use.

Assemblyman Oscarson asked whether there have been any discussions with mining yet.

Senator Spearman said that there have been brief conversations and it may be doable.

Assemblyman Oscarson then asked Josh Nordquist if some of these mining sites were brownfield sites too.

Mr. Nordquist stated that he believe they were and he foresees an opportunity there.

Assemblyman Oscarson recommended working with mining and other folks.

Jeremy Susac asked who would actually do the examination and the development.

Senator Spearman replied that we shouldn't be spending any more money, using an existing agency would be a good option.

Mr. Davis reiterated the recommendation, that the Governor's Office of Energy would explore opportunities where we could expand geothermal with mining.

Senator Spearman said that was correct.

Mr. Davis recommended that the Division of Minerals be included since they probably have the most information about mine sites.

Assemblyman Oscarson encouraged that the Mining Association also be mentioned in that group of stakeholders.

Chair Dykema reworded the recommendation as follows, The Governor's Office of Energy and Division of Minerals and Nevada Mining Association explore the nexus of utilizing existing mining sites to expand our domestic renewables.

Mr. Davis made a motion to approve Senator Spearman's recommendation, it was seconded by Jeremy Susac. The motion passed unanimously.

The Chair thanked everyone and agenda item number 5 was closed.

6. Presentation by the Technical Advisory Committee on Grid Modernization: The Chair moved on to agenda item number 6 and she invited Rebecca Wagner to present.

Ms. Wagner stated that the Grid Mod TAC was created to assist the Office of Energy with a grant from the National Association of Energy Officials, also known as NASEO, on a project called Energy Markets and Planning. The goal of this program is to help states develop a comprehensive approach to advancing electric system and related energy infrastructure modernization resilience and affordability, so essentially identifying areas that are ripe for grid modernization and how to have a roadmap to those. Our Committee will continue to meet after the conclusion of the Task Force, and we'll be working closely with the Office of Energy to fulfill those obligations under that grant. And we look forward to engaging on that work because we haven't had much of an opportunity to yet. We did just have a meeting, and we received a couple of presentations that were very interesting and also helped form the basis of our recommendations.

The first recommendation deals with Section 368 of the EPACT 2005 Energy Policy Act of 2005, which directed the Department of Energy, in collaboration with the Federal land agencies, to identify energy corridors in the Western States. The intent was to mitigate environmental impacts as much as possible, streamline the permitting process, and inform land use planning decisions at BLM. So obviously, this is critical in a state like Nevada with the large amount of land controlled by our Federal land agencies. I was at the Governor's Office of Energy when we developed these corridors, and what the thought behind them was just making sure that we had energy corridors that could promote and be available for the development of renewables over time, especially with relation to transmission. So the Department of Energy is now in the process of reevaluating these corridors, and this recommendation simply is just to highlight to the Office of Energy and the Governor's Office the importance of maintaining these corridors as necessary. I am particularly concerned about a corridor along the West side of the State. It's an excellent potential corridor for

delivery into California, as well as access to Nevada renewables that may be encroached upon by expansion at Nellis Air Force Base. So making sure Nevada is engaged in that process, perhaps eliminating some of the corridors that don't make sense any more, but really just the point being this is really important for our clean energy future. So with that quick not-so-articulate overview, I'm happy to answer any questions and pause if you all plan to take a vote.

Mr. Nordquist asked if there is much out there or if it is being revitalized.

Ms. Wagner said that these were originally designated by DOE, with the help of BLM and others, and obviously the States. BLM is also going through a process of updating its resource management plan. They contracted with NREL to do an evaluation of renewable opportunity in Nevada to help inform the RMP process. This would help inform that RMP process as well. So I've heard early reports about the NREL report, I have not seen it so I can't speak to what's actually in it, but this is another piece of that puzzle that is really critical so that BLM is making resource planning decisions in Nevada that are consistent with what we see our energy future to be.

Mr. Thompson said that he supports both of the recommendations but asked whether there are specific sponsors for the bills.

Ms. Wagner clarified that she was starting with the first proposal which is a recommendation to the State of Nevada, the Governor, to pay attention to this really important issue. Further, these are more like concepts for the Legislature.

Chair Dykema stated that we come up with our BDR recommendations for the Executive Branch deadline, and we have a couple of those that have been carried forward, and now is our opportunity to focus more on the policy recommendations, as well as any others that might require legislation. The legislators may take them as they will or they are simple recommendations.

Senator Spearman added that she has several BDR placeholders in case there are some that need to move forward as well as an energy omnibus energy bill.

Kathryn Arbeit thanked the Grid Modernization Technical Advisory Committee for the policy recommendation. She stated that she has seen a lot of complicated nexus of various Federal land use planning and other processes and how it may impact the ability of Nevada to move towards sustainable energy future. She added that having the Office of Energy involved in this will pay off in the long run.

A Task Force member moved to approve the 1st recommendation from the Technical Advisory Committee on Grid Modernization and another member seconded the motion, the recommendation passed unanimously.

Moving on go to the next recommendation, which is a legislative proposal for a funding bill that would incentivize one or more demonstration projects, the nature of the demonstration projects is loosely defined, but the intent is to provide an opportunity for electric utilities, regulators, policymakers to understand how distributed energy resources can be integrated into the grid. And distributed energy resources can be defined a number of ways, but we were thinking of resources on

the distribution system, such as rooftop solar, community solar, to include demand response, electric vehicles, storage, I think there's varying definitions of it, but it's really thinking of the concept on the distribution system and that nexus to customers. And then specifically looking at how this integration works with the utility's data platform, security protocols, the operations and control of the utilities, the communications system as well as the interconnection requirements. And so the intent of this is just to highlight to the Legislature the importance of understanding how these moving pieces work together. And in the ideal world, we heard a presentation from Snohomish Public Utilities District on their pilot program or demonstration program along these lines, that they connected it to areas where they needed resilience in their system. So their second project is associated with an airport. So that thinking of this, especially if there is going to be State funds or ratepayer funds, however it is funded, it would be good to have it with a nexus to some public purpose, either resilience at needed infrastructure areas like an airport, or the University, or schools, an RTC, I mean, there is a whole host of things, but to really give back in terms of the public component of this and the demonstration component of it.

Assemblyman Oscarson asked, so the recommendation is that the Legislature consider a funding bill to incentivize some projects?

Ms. Wagner said that is the intent, that there be some authorization of funds to create a demonstration program. She stated that in the DG&S TA they talked about utilizing the unspent, uncollected funds from renewable generations for other purposes; that would be an opportunity. In the State of Washington, they set aside general funds for clean energy projects. So we didn't identify what it should or could be, it was just that it would be to fund programs that probably wouldn't be cost-effective anyway so they would need a little help along the way, but really to provide the learning-by-doing in the process.

Assemblyman Oscarson continued by stating that it concerns him when there is a funding bill kind of language, reworded he would be happy to support it.

Mr. Thompson said that any funding bill needs to go through the money committee and they would vet it out and if they found a place to make it fit they will and if they can't they won't. This isn't mandating them to do something absolutely, it gives them the opportunity to set some money aside to do something that would prove beneficial.

Ms. Wagner stated that she agrees and they wanted to just put it out there to get the concept of being able to learn about these systems and how they interact with our utility and the regulatory world.

Assemblyman Oscarson said that he is supportive of that but wants to be cautious as they go down that road.

Senator Spearman said that one of the things that would mitigate whatever funding that is perceived for this bill would be to check with NREL and find out what they're doing.

Ms. Wagner agreed with the value of NREL, that there is a lot that can be learned from NREL but there is also more to be learned from NV Energy analyzing its system to see if its data platform is sufficient for adding renewable resources or electric vehicles that could be responding to increased

demand. So it's really getting down to the technical level of physically doing it and that's where I think that without actually doing it, it's hard.

Senator Spearman continued and said that she wasn't discounting what needs to happen but just stating that there are probably things that are comparable to what we are trying to do. If we can learn from that, it mitigates some of the costs that would be involved.

Mathew Tuma added that this proposal is really complimentary of several of the proposals from the Distributed Generation and Storage Subcommittee. I would say this proposal probably dovetails the most into Distributed Generation and Storage Recommendation about reprogramming of some of the remaining renewable generations funding, at least as identifying a source, but this issue does touch on a reoccurring theme that came up in Distributed Generation and Storage, which is, any time you're proposing new technologies or new targets, new looks at how we're going to be improving our grid, who pays for that. And reprogramming the renewable generations funding is a great source of funding, but it's important to recognize that it's only going to be ratepayers within NV Energy's service zone who are going to be paying for that. Any funding mechanism that would come from the general fund or from another source that the State would identify would broadly impact all Nevadans in a different way. And so that was a reoccurring theme that came up in our Technical Advisory Committee, and like I said, this brushes on it, and we were talking about it a little bit when, whether or not we could fund this through some other mechanism in the State. But that's going to be a reoccurring theme for our discussions today, it's going to be a reoccurring theme throughout the legislative session, when there is a financial impact is that financial impact going to be borne by solely utility ratepayers, or by the State by all energy users within our State.

Mr. Nordquist asked whether in clarity, the cost impact should be considered when speaking of a physical project or a modeling or desk effort.

Ms. Wagner responded by saying that the different integration studies in the past on the transmission system suggested that adding large amounts of renewables would, basically crater the Western interconnection. And I'm talking 1997 vintage. What I think is what we're diving into here is in the distribution system where I don't know that you can model - you potentially could model - but it's really getting to the utility's advanced metering infrastructure, how that connects with a net metered system. There has been problems with Smart Meters not connecting to be able to utilize the advanced metering infrastructure. So it's identifying what are those little hiccups that are causing problems. Because if you can take it down to that level, then you know that there is going to be issues with EV, using charging stations, both the flow of power both ways in the distribution system, as well as storage and energy efficiency, demand response. So it's really trying to fine-tune what are the problems there. I think that's more of what it's drilling down to that level that I'm not sure you can capture by modeling. But I don't disagree with you that there is a lot of modeling that can be done, there is a lot of lessons learned that can be done from other jurisdictions. It's not like Nevada is the first one to contemplate this. There is a lot of advanced work in New York and California and Hawaii. So certainly taking those lessons learned and, pulling it all together so that regulators, policymakers, utilities, the actual people who do the work on the systems understand what's going on.

Mr. Davis stated, I generally agree with what's been said so far. I am not sure how high of a priority this would be; I may like something else a bit more. It puts it on the table and in the mix, it comes down to whether there is enough money to go around.

Chair Dykema asked for thoughts on combining it with recommendation 10, or identifying renewable generations as a possible funding source.

Ms. Wagner made clear that there is no bucket of money. A funding source was not discussed intentionally; someone else can figure out the funding source.

Assemblyman Oscarson said the bottom line is battery storage is one of my big things that I've spoken about throughout these meetings, I think that's important, all our electric vehicles and all the industry we're bringing to the State. I get concerned when, having sat on one of the money committees, we do all of these projects and all these things that are supposed to be for the better, and we burn through all these dollars before we even get anywhere to be moving forward with the projects. So I just want to be cognizant of that. I think certainly Nevada Energy is cognizant of that, and recognizes that, you know, we have to move forward with these things, as do the other partners. This is imperative and important to their business models and their processes.

Mr. Davis stated that keeping both recommendations separate would be a lot cleaner because a program like this would be broadly applicable to more than just NV Energy ratepayers.

Kyle Davis moved to approve *the 2nd recommendation from the Technical Advisory Committee on Grid Modernization* and another member seconded the motion, *the recommendation passed unanimously.*

Chair Dykema closed agenda item number 6.

7. Presentation by the Technical Advisory Committee on Clean Energy Sources: The Chair moved on to agenda item number 7.

Jennifer Taylor presented as follows, we have a series of recommendations from the Clean Energy Sources Technical Advisory Committee that came up after our last recommendation in July of 2016. These six additional recommendations focus on areas including energy efficiency, electric vehicles, regionalization, and the Clean Power Plan. In developing our recommendations following presentations and a series of policy workshops, we continue to look at the underlying language of the Governor's Executive Order, and we also continue to look at the direction that he gave us for our work, which was to provide recommendations.

So the first one is a recommendation that the Nevada Division of Environmental Protection reconvene the Clean Power Plan technical advisory group to assist it in the development of a State plan for compliance with the Clean Power Plan. We believe that's in the best interest of Nevada's citizens and businesses, including exploring Nevada's voluntary participation in the Clean Energy Incentive Program. The Clean Energy Sources Technical Advisory Committee recommends that NDEP be directed to continue its work on the State plan under the CPP to stay in step with our

Western neighbors, and be proactive in our energy policy and carbon reduction goals. This recommendation passed unanimously out of our subcommittee.

Mr. Thompson asked if it would require not just NV Energy but also co-ops and municipalities.

Ms. Taylor responded that it included NV Energy and Newmont Mining. She said she did not imagine there would be a reluctance to include additional stakeholders that might be impacted by Clean Power Plan planning or could have an impact on a larger framework. She added that the group also included environmental stakeholders, the PUC and the Bureau of Consumer Protection.

Mr. Davis added that there might have been a representative from independent power producers that operate EGUs in the state.

Ms. Taylor said, I don't remember anybody from independent power producers, but again, I don't think that having that addition to the group would be problematic or impact the recommendation in any way.

Mr. Davis added that essentially anybody that had an interest in being involved was allowed to be.

Assemblyman Oscarson asked whether they would be willing to amend the language to include the co-ops.

Mr. Davis answered that it could say something along the lines of, this group shall include all stakeholders, including municipalities and co-ops.

Mr. Tuma asked, are these other western states as close to compliance as Nevada is? We are pretty close to compliance and there are relatively few things we would have to do in comparison to those states that need to work on it.

Mr. Davis responded, it depends. California, Oregon, and Washington are all over complying, they might be able to trade into a market. States like Montana, Wyoming, and Utah still have a little ways to go. We are well situated, we don't need to really do anything beyond what we were already planning to do.

Mr. Tuma asked, as an incentive of what our State would be able to do with this, it would mostly be sort of looking at opportunities to work with states that are much further behind compliance and figuring out how our State could benefit from that?

Mr. Davis said that essentially what this recommendation is, is we've got a little time to work here, let's take our time involving everyone and put together a plan that's going to put Nevada in the best possible position to take advantage of potential opportunities in the Western marketplace.

Senator Spearman added that when you look at the trajectory of how renewable energy and the 21st Century grid are going to work, it's not just going to be state but it will be looking more at a regional fashion and we should be a leader in this.

Mr. Davis moved to approve the 1st recommendation from the Technical Advisory Committee on Clean Energy Sources, with the addition of, after it says Clean Power Plan technical advisory group, add in “to include all stakeholders including municipalities and co-ops”. Senator Spearman provided a second; the recommendation passed unanimously.

Ms. Taylor continued with the second recommendation, it says: Nevada utility customers could benefit from interstate cooperation and participation in regional energy and carbon markets that result in the lowest cost of compliance. The Task Force recognizes such markets could present opportunities to trade or sell allowances or other compliance instruments, thereby reducing costs to Nevada customers. Therefore, the Task Force recommends that NDEP develop a State implementation plan that enables Nevada to trade compliance instruments with other states for the benefit of Nevada customers.

Mr. Davis added that the state should put together a plan that takes advantage of regional trading opportunities.

Mr. Davis moved to approve the 2nd recommendation from the Technical Advisory Committee on Clean Energy Sources and Ms. O'Brien provided a second. The recommendation passed unanimously.

Ms. Taylor continued with recommendation number 3, The Office of Energy would continue working collaboratively with Western States on regional energy issues that maximize opportunities to advance the development of Nevada's renewable resources, reduce air pollution, and lower costs for consumers. This recommendation came out of a policy proposal work session, as well as the same presentation from CAISO. This recommendation also provides an opportunity through programs such as those being conducted at the Center for New Energy Economy to let Nevada keep abreast of what our neighbors are doing. As such, we recommend continued regional collaboration to advance Nevada's renewable energy resources, reduce air pollution, and lower costs for consumers.

Mr. Davis moved to approve the 3rd recommendation from the Technical Advisory Committee on Clean Energy Sources and another Task Force member provided a second. The recommendation passed unanimously.

Tom Polikalas presented recommendation number 4. The fourth recommendation is that the Task Force recommends legislation comparable to that passed in New Mexico in 2013, and was presented at the August 15th, 2016 Clean Energy Sources Technical Advisory Committee meeting. These recommendations should apply to any entities providing power to Nevadans, both those existing and those that may provide such services in the future.

The specific recommendations based on the New Mexico plan are first, provide no less than 5 percent of utility DSM spending over a three-year horizon, to be directed to help low income Nevadans become more energy efficient. Second, direct the PUCN to utilize the utility cost test in lieu of the total resource cost test, which is their current practice. Third, evaluate the utility's DSM program cost-effectiveness as a whole so that the entire portfolio passes the utility cost test without

individual programs having to meet that standard. Fourth, recover the costs of these programs in a non-bypassable charge that must be assessed by all utility providers.

There is currently a program in Nevada that helps a limited number of low income Nevadans pay their energy bills when they are unable to do so on their own. However, there are very few resources made available to help low income customers become more energy efficient in order to lower their energy bills outright, thus low income customers pay a much higher percentage of their available income on energy bills, limiting their ability to buy goods and other services.

The current test used by the PUCN to evaluate efficiency programs does not appear conducive to implementing utility energy efficiency programs targeted toward lower income Nevadans for the following reasons. First, the PUCN currently uses the total resource cost test to evaluate the cost-effectiveness of energy efficiency programs. This test is deemed by some utility analysts to not fairly compare a utility's cost of supplying energy with the cost of its saving energy. By not providing a level playing field to compare the costs of supply side resources to the cost of demand side management programs, the PUCN's current policy encourages more energy production than would likely be the case under a different and more leveled method of analysis. This recommendation directs the PUCN instead to use the utility cost test, a policy which is in place in Utah, New Mexico, and other states, and compares only the utility's costs of saving energy against its costs of supplying energy. Second, under Nevada's policy currently each individual energy efficiency program must meet the total resource cost test. In the example of New Mexico's legislation, utility energy efficiency programs can be aggregated together to analyze their costs and benefits so that an entire portfolio of energy efficiency programs are being evaluated for their cost-effectiveness. This opportunity to aggregate program costs and benefits together for evaluation as a portfolio enables more programs for low income utility customers.

Our TAC noted, in recommending to dedicate no less than 5 percent of a utility's total energy efficiency program expenditures to low income customer programs, and evaluated that over a three-year basis, that low income customers have been paying the surcharge on utility bills for energy efficiency programs without having energy efficiency programs available to them. By enabling low income Nevadans to access energy efficiency programs and save on their utility bills, advocates expect additional positive economic effects from this policy, as these low income customers will have additional income to spend outside of their utility bills.

Mr. Thompson asked whether there was a cost analysis done on this plan or proposal.

Ms. Taylor replied that there was no cost analysis done on this proposal and the number would vary from year to year.

Mr. Davis added that the DSM budget is set every year by the PUC.

Mr. Polikalas continued by saying that currently NV Energy has a budget of \$50 million a year for their entire suite of DSM programs, so 5% of that number in that particular year would be \$2.5 million being directed to this particular constituency.

Mr. Thompson asked whether any of this would apply to co-ops or municipalities since they are not regulated.

Mr. Polikalas replied that was his understanding, these would impact the current procedures and policies that govern the PUC.

Mr. Thompson stated that he could not support this recommendation without a further study.

Mr. Davis continued on to say, currently the utility has a budget for DSM, energy efficiency programs that they spend every year. This proposal is saying that 5% of the existing budget, which is currently coming out of customer bills, should be directed to help low income Nevadans become more energy efficient. It wouldn't necessarily change the amount of money that is coming from ratepayers for these programs.

Mr. Polikalas added that it is a surcharge that these folks are paying. Low income folks have the same surcharge that non low income folks are paying into, so they are funding the overall DSM portfolio for NV Energy but they're not receiving commensurate benefits. So really it's an attempt to make our policy and energy efficiency more fair, impacting tens of thousands of Nevadans. Helping them lower their energy bills will be a net benefit to the economy, as we start to spend more money at the local economy as we help those folks lower their energy bills. That's demonstrated in a number of studies to really help local retailers and providers of goods and services.

Mr. Davis said that we are not talking about the Universal Energy Charge, this is the energy efficiency program, a separate budget, so it's not taking any money from the existing funding that goes for bill assistance.

Mr. Thompson said he still could not support it unless there were some numbers around what it all means to ratepayers. You're talking about NV Energy ratepayers not anyone who is in a co-op or municipality.

Mr. Polikalas added that essentially it would not change the surcharge on energy efficiency programs. Rather it would direct the money that's aggregated through that assessment to ensure that those folks that are paying into the program have programs that are available to help them reduce their energy bill. It's a matter of fairness, they're paying into a program and they're not receiving benefits.

Mr. Davis continued and said, this recommendation doesn't seek to change the way NV Energy and the PUC go through their process, through their integrated resource plan, where they decide how much money to spend on these demand side management programs. It seeks a-carve out to make sure that there are some low income programs available.

Senator Spearman said that there is a pot of money already there and it is for energy efficiency. This offers opportunities to more people.

Mr. Polikalas added that 5% is going to help those constituents and Nevadans. Second, NV Energy has the opportunity of bundling everything together for a cost-effective package.

Senator Spearman then asked, what does it do for people on fixed incomes like seniors? Do co-ops have this same pot of money? Is there an imbalance? Does NV Energy provide a resource for energy efficiency that people in co-ops don't have?

Mr. Polikalas responded that coming out of the electric cooperative world, there are extensive numbers of energy efficiency programs that are currently available in electric co-ops. In fact, some of the co-ops in Nevada such as Wells Rural Electric has a broad suite of energy efficiency measures that those of us that are customers of NV Energy don't necessarily have available to us at this point in time. Certain other co-ops, and as you know they're not under the purview or regulation of the Public Utilities Commission, have very aggressive energy conservation programs, one of the national award-winning co-ops being Valley Electric for their solar water heating program, which is a no money down, zero percent interest program that facilitates the transition of electric water heating to solar water heating, putting money directly in the pockets of consumers from the get-go. So the primary difference would be that this is a legislative concept that would address Public Utilities Commission reform, and that's why it impacts NV Energy and any other regulated utility that may come into the landscape should there be retail competition in the years to come.

Mr. Thompson asked how much is that non-bypassable charge that must be assessed by all utility providers, is that a new charge?

Mr. Polikalas replied, that's the charge that is currently on our bills as NV Energy customers, like 2% and it is assessed currently, we are not looking to increase that. We added the language to assure a level playing field between the investor-owned utilities that may come into the state.

Mr. Thompson said that a lot will get thrown out with this constitutional amendment. It is going to be very difficult to enforce some of this.

Senator Spearman asked, does this create an undue burden on NV Energy that the co-ops would not have to bear?

Mr. Davis said that this doesn't change anything in terms of the amount of money that would be spent on energy efficiency programs. That would still be determined in the IRP process. This recommendation makes changes once the budget is approved, how the budget is allocated. The impact on NV Energy will remain the same, this proposal doesn't apply to co-ops or municipalities.

Assemblyman Oscarson asked whether regulated utilities included Southwest Gas.

Mr. Polikalas said essentially the same concept would be applied to the natural gas utility. Southwest Gas did not provide any input, I sent the recommendation to their Governmental Affairs Director, Debra Gallo.

Mr. Thompson asked, explain the difference between the utility cost test and the total cost revenue that you currently do, it looks like you would be taking that decision away from PUC.

Mr. Polikalas answered, what the utility cost does is really evaluate the utility's supply side resources directly against the utility's demand side resources or energy conservation measures. So it puts them on the level playing field. What the total resource cost does, it adds in the customer's cost, too. So to some extent, instead of having a fair race, you're saddling the efficiency programs with a weight, and it makes it less competitive than it otherwise would have been in a competitive situation. So all we're trying to do is to put the energy efficiency measures up against a level playing field.

Mr. Davis went on to say, let's use an example, let's say that NV Energy is providing a rebate for a new refrigerator. When you look at the total resource cost, they're going to look at the cost of that rebate plus the rest of the money that I had pulled out of my pocket to buy that refrigerator, and look at that and compare that against the cost of a power plant which is funded entirely by ratepayers. The utility cost test just looks at the cost of that rebate, so the cost to you as the ratepayer, the cost that's coming out of your pocket for me to buy that refrigerator, and it doesn't look at my cost as well. So it's a more apples-to-apples, and it only looks at what the cost is to the ratepayer and it doesn't look at any external costs that the utility has no control over.

Senator Spearman asked if the dollar amount is static or dynamic.

Mr. Polikalas replied that the amount of money that is assessed is part of the IRP process so that changes. But in terms of the impact to ratepayers, it's fundamentally the same, the percentage remains static.

Assemblyman Oscarson said he would not be supporting the recommendation even though he has great respect for Mr. Polikalas. He believes this is better left in the hands of the PUC.

Mr. Davis moved to approve the 4th recommendation from the Technical Advisory Committee on Clean Energy Sources and Senator Spearman provided a second. The recommendation passed with 7 supporting and 2 against.

Ms. Taylor continued with recommendation number 5, recommendation number 5 states that the Task Force recommends that the Public Utilities Commission of Nevada work with regulated utilities and the Office of Energy to develop a State plan and programs to accelerate the adoption of electric vehicles, including recommending any legislative changes needed.

This recommendation would establish transportation electrification as a State goal, and encourage greater utility involvement in expanding the deployment of electric vehicles. This recommendation recognizes that there is a public interest in expanded use of EVs, and that it supports the goals of the Governor's Accord and the framework for our State. Additionally, a docket is currently open at the PUCN to investigate electric vehicle charging infrastructure, and this recommendation could work in support of this current investigatory docket.

Discussions in our Committee recognized that tailpipe exhaust from internal combustion engines now comprise a significant portion of Nevada's carbon emissions, which can be reduced by using electricity as a fuel.

The PUCN would review any submitted plan to determine if it is reasonable and will benefit all of its customers, and review how costs of the implementation of the plan shall be recovered. More specifically, the Accord calls for Nevada to encourage clean transportation options by supporting automakers' market expansion for these new vehicles, to expand consumer choice, lessen dependence on petroleum, and reduce pollution. Additionally, the Strategic Framework goals, specifically 7.2.3, which seeks to reduce carbon emissions to a level at or below accepted Federal standards, and currently it is one of, as with tailpipe emissions, being one of Nevada's most significant sources of carbon emissions, this recommendation would fit within those framework goals. As such, this recommendation directs the PUCN and the Governor's Office of Energy to work with regulated utilities to develop plans and programs to accelerate the adoption of electric vehicles in Nevada by the end of 2017.

Mr. Thompson stated that both of these proposals are regarding electric cars and he supports that but they do not pay gasoline tax. He's currently working with RTC in Las Vegas to index the fuel tax so that there is money to fix the roads. Otherwise, there will be no money for Southern Nevada to do road repair and construction. Mr. Thompson had a problem with both proposals because Faraday Future is fast-tracking their construction because they know the cars will sale like hotcakes. He stated there is just no way to get the kind of money you get from gasoline tax.

Ms. Taylor continued on to say that there is a way to create a level playing field. That this recommendation is asking the entities that are going to be impacted work on recommendations.

Mr. Davis asked what is the status on figuring out how to do this.

Mr. Thompson stated, not much has happened. Oregon has a pilot program for vehicle miles traveled, but this is a really tough one and I don't know that anyone has the answer right now.

Ms. Taylor said that this recommendation would allow the ability for your concerns to be integrated as those entities work together to develop those programs. This is a way to move the discussion forward with the appropriate entities.

Mr. Thompson said, I am not against electric vehicles, all I am saying is we should not have a policy that doesn't include that problem as a centerpiece. I support what you are trying to do but it has to be with the understanding that we have to have a solution to this problem.

Assemblyman Oscarson said, I don't think there is any reason that we shouldn't be driving this issue, we need a long term solution to the fuel tax issue.

Senator Spearman added, I'm looking here at research that was done by NEM GAT research, it's an independent research entity that says: Based upon the adoption rate of electric vehicles right now, by the year 2024 there will be 5 million electric vehicles on the road. 2024 is only 4 legislative sessions from now. Perhaps we can add language that says we will look at what needs to happen so that we have money for our bridges and roads and highways. So we're not just talking about EVs. What I would like to see us do as legislators, I would like to see us look at putting a plan in place that allows the assimilation of technology. You know, maybe we have to tweak and tune it, but we need to start paying attention to emerging technologies that are still in the research phase.

Chair Dykema recommended that maybe we reword this to read: Including recommending any legislative changes needed, and addressing the issue of the gas tax and surrounding associated issues. If we add that wording into the recommendation and then, of course, add in Department of Transportation since they play a fundamental role in any vehicle miles traveled studies that we're currently conducting.

Senator Spearman said, I would like to see us put that at the front end, that we are looking at legislation that will accommodate the fact that with more EVs, more hybrids, more fuel cell cars, all of that is going to mean a reduction in the gasoline tax. If we put that at the front end, I think what that does is for us in the legislator that punctuates it.

Mr. Taylor proposed new language, the Task Force recognizes that the emergence of alternative fuel cell vehicles may create fiscal challenges with infrastructure funding, and recommends that the PUC and NDOT work with regulated utilities and the Governor's Office of Energy to develop a State plan and programs to accelerate the adoption of alternative fuel cell vehicles. And that puts that concern upfront, and integrates Mr. Thompson's concern.

Assemblyman Oscarson added, I think that it also needs to include the electric vehicle manufacturers or their representatives. I think they need to be included in that discussion and part of that dynamic, especially knowing the importance of that industry to the State of Nevada.

Chair Dykema stated, so then our recommendation would read: The New Energy Industry Task Force recognizes the fiscal issues associated with electric vehicles, and recommends that the PUCN, the Office of Energy, Department of Transportation, and electric vehicle manufacturers work together with the regulated utilities to develop a State plan and programs to accelerate the adoption of electric vehicles.

Ms. Taylor said, I think that the phrase, including recommending any legislative changes, just needs to stay then at the back, because the recognition of the issue now has been put up front.

Mr. Thompson moved to approve the 5th recommendation from the Technical Advisory Committee on Clean Energy Sources and Assemblyman Oscarson seconded. The recommendation passed unanimously.

Ms. Taylor continued with the last recommendation, our last recommendation is that the Task Force recommends that the Office of Energy work with the Nevada Department of Transportation to propose financial incentives to stimulate the purchase of electric vehicles.

Nevada can create a State sales tax rebate with a cap, for example, at a maximum of 2500 per vehicle. Based on 2015 Nevada EV sales, and assuming this would increase sales an additional 50 percent on average, the cost to the State could be approximately 2.25 million per year. In order to limit this ongoing cost impact, the tax credit or point of sale rebate program could have a sunset provision, for example, to be in effect for four years between 2017 and 2020, and/or be capped at a certain number of EVs entering the market.

Mr. Thompson asked, is there currently an electric vehicle tariff?

Mr. Polikalas responded, yes, there is a time-of-use rate that is available, recognizing that the demand for energy is less at night.

Mr. Thompson asked, so what we are talking about here is a sales tax incentive, not ratepayers having to pay an additional charge?

Ms. Taylor said that was correct.

Mr. Davis added that this recommendation leaves it pretty open to the Office of Energy and NDOT to come up with something.

Chair Dykema asked whether they wanted to add some clarity to the recommendation and make it more specific.

Mr. Thompson said, I don't think we should saddle ratepayers with an incentive. If you can come up with some sales tax rebate, that would have to be approved by the Legislature. I can't support that if we are asking the ratepayers to incentivize somebody buying an electric car.

Mr. Susac asked whether the State has a procurement agency that buys state fleets so that when they turn over they can have a preference for electric vehicles.

Mr. Davis added, yes, there is a process for this and there is a requirement in law that the State buy alternative fuel vehicles. The only problem is that reformulated gas is an alternative fuel under the law.

Senator Spearman asked, what policies were in place when it went from regular petro to gas-powered engines? How did we make that happen?

Chair Dykema replied, I don't know the history of the statute but it has been a program in place.

Senator Spearman continued, the purpose of my question is that perhaps that provides a template for what we're trying to do here. Also, I would like to put in place the types of policies that have the elasticity to adapt and expand for the use of emerging technologies.

Mr. Tuma said, I look at this proposal, and I kind step back a minute, and it's not recommending any specific action one way or another, it's asking two agencies to evaluate potential ways that we can incentivize the purchase of electric vehicles or alternative vehicles and, as a rule agencies should work across each other's boundaries and not be siloed when they make decisions as they're looking towards future problems. You know, I don't have any heartburn looking at this, because I consider it an advisory recommendation to the directors of those two agencies. I would add probably, if appropriate, at the end of this recommendation, so it doesn't mandate that a financial incentive needs to be put in place, it allows the path for both considering actions that could be legislative, that would probably be looking at a session from now or a couple of sessions from now, or regulatory that could be implemented by the agencies themselves.

Mr. Davis said he would be fine with adding language so it's clear that they're not talking about ratepayer dollars.

Chair Dykema said, All right. So how about we amend that to read: The Office of Energy and the Department of Transportation work together to propose financial incentives to stimulate the purchase of electric vehicles, if appropriate.

Mr. Tuma moved to approve the 6th recommendation from the Technical Advisory Committee on Clean Energy Sources and Ms. Arbeit seconded. The recommendation passed unanimously.

Chair Dykema closed agenda item 7.

8. Presentation by the Technical Advisory Committee on Distributed Generation and Storage:

Chair Dykema opened agenda item 8.

Chair Dykema invited Co-Chair, Matt Tuma to begin his presentation.

Matt Tuma began with the first recommendation, the Task Force at our May meeting, passed a recommendation in support of PACE legislation, and we had a recommendation that we should specifically call out battery storage and include that as a technology that can be funded through the Property Assessed Clean Energy Financing.

Chair Dykema added, this would be a recommendation to add battery storage systems to the definition of programs that PACE would allow for in the BDR that we currently have.

Mr. Nordquist asked if he could remind them of the current wording.

Chair Dykema responded, it's the same exact legislation as the previous couple of bills, SB 150 and SB 250, so I think it's just renewable energy systems.

Mr. Davis added, it's energy efficiency.

Chair Dykema said, yes, it's energy efficiency systems.

Mr. Tuma continued, it's for renewable energy systems, distributed generation systems, and energy efficiency systems. Depending on the interpretation, that could include battery storage systems, but we wanted to make it clear that battery storage systems do offer some versatility to people making investments in their home where they can control the power usage during peak times. So we would recommend that it specifically call out battery storage systems as being able to be financed through that.

Mr. Thompson moved to approve the 1st recommendation from the Technical Advisory Committee on Distributed Generation and Storage and Matt Tuma seconded. The recommendation passed unanimously.

Mr. Susac continued with the second recommendation: this is to modernize Nevada's building codes. It's a recommendation that all energy codes in the IECC adopted after June 1st, 2017, have three performance paths. Currently there are only two, that's the prescriptive and the performance paths. This recommendation would create an alternative compliance path that would allow for solar technologies as well as high efficiency HVACs to be tools for energy code compliance.

Currently there is a prescriptive path which works well for small builders that want to be told what to do and ensure compliance, and it says, use this type of insulation in the walls, this level of insulation in the attic, these high performance windows, these high performance doors, and, voila, you achieve energy code compliance under the building code. What this would do is it would set more aggressive energy reduction targets, and it's similar to a cap and trade, it would say you reduce your energy per 20 percent on new homes, but we won't tell you how to get there. If you want to use R-31 and insulation in the attic versus R-38 you can do so, but you'll have to trade it off with more energy efficiency strategies, such as solar or high efficiency HVAC, or a combination of two. Kind of like going into a doctor's office and they tell you to lose 20 pounds. You say, okay, but don't tell me how to get there. Let the market kind of figure that out. It would allow flexibility for builders, it would provide an opportunity for new technologies and innovation to be incorporated into the home, and it would provide more energy reductions than is currently required by State law.

Mr. Thompson said he thought this was something we should have done a long time ago.

Mr. Davis added, I want to make sure this isn't a situation where you do build a completely inefficient building and power it with renewables. But I've received a lot of assurance that is not the case.

Mr. Susac responded, yes there are minimum mandates for insulation and windows and doors, and things of that nature. There won't be a tiki hut built with a solar panel on top for energy code compliance.

Senator Spearman asked, there is an additional cost to the home in using that, am I correct, in building the home?

Mr. Susac replied, no, we can actually save on average \$2,000.00 per home. This means you can bring in 206,000 new home buyers that otherwise couldn't buy a home. So to the extent that we can start savings upwards of \$2,000.00 per home, we could bring in almost half a million dollars. There's a real economic driver, and to a certain extent the energy code, as it currently stands in state law, is a constraint to the affordability of homes, and to the extent you allow this alternative compliance path you would promote the affordability of homes and new construction.

Mr. Thompson moved to approve the 2nd recommendation from the Technical Advisory Committee on Distributed Generation and Storage and another Task Force member provided a second. The recommendation passed unanimously.

Sarah Van Cleve continued with recommendation number 3, first, I just wanted to hit on how storage supports the Task Force goals. There were three main goals, you'll remember, that the Governor put forward, encourage the deployment of clean energy resources. As we all know,

storage is very important for moving to higher penetrations of renewables for integrating renewables, whether that's solar and wind that are intermittent, but even making better use of resources like geothermal, which are more base-load resources, but using storage we could turn those into a little bit more peaking resources. The second goal of the Task Force is to foster the creation of a modern, resilient, and cost-effective energy grid. And I think this one is really important for energy storage, because even in a place where you have zero renewables, energy storage is still a good resource for the grid, and for that resiliency and security benefit, as well as for cost-effectiveness. So on resiliency and security, having energy storage on the grid allows you to have a more diversified grid, and not so dependent on a single resource like natural gas. Also, it allows your goods to be more de-centralized. On the cost-effective side, energy storage already is a cost-effective resource on the grid in certain cases, and so it's just a matter of uncovering where it's cost-effective. And the utilities are the ones that really have data in terms of finding those opportunities, so we're hoping for policies that help progress finding those opportunities, seizing them here in Nevada. And finally, the third goal of the Task Force is to support distributed generation and storage. And obviously, storage itself is in that goal, but storage can also help all other forms of distributed generation, make solar, for example, more useful to the electric utility.

Our recommendation is that the 2017 Legislature consider a bill to update NRS Chapter 704 to include energy storage procurement targets to serve all electric customers so that Nevada may unlock opportunities to utilize cost-effective energy storage on the grid. The bill would include targets for storage, interconnected to each point of the grid, customer connected, distribution connected, and transmission connected. Further, storage procurement targets should increase over time with targets starting no later than 2020 to ensure that lessons learned from earlier procurement inform subsequent procurement.

Mr. Thompson stated, it's my experience whenever you mandate something there is a cost associated with that, and so you made a comment a minute ago that that would not cost ratepayers any additional money. Could you expand on that a little bit?

Ms. Van Cleve replied, that's why we've distinguished these storage procurement targets from traditional mandates. So, for example, in the past, renewable portfolio standards have said that you have to achieve this amount of renewables, basically without any cost sensitivities or cost provisions, but the difference between, a procurement mandate and a procurement target is that that cost-effectiveness piece does come in.

Mr. Nordquist added, I think recommendation number 3 is good. I do believe that energy storage has to be a part of the recipe for the State going forward. It's shown to be a very effective solution in other states, as they've grown their renewable integration policies, and it's in many cases, especially in California, it's turned out to be an extremely effective tool in dealing with some of the issues that they're dealing with today, especially with the large integration of intermittence. But number 4 gives me a little bit of hesitation, even though understanding the cost-effective off-ramp, we have a hard time setting specific targets for such technology that's not part of a more comprehensive kind of renewable strategy, understanding completely that storage can offer some benefits on the grid with or without renewables. Setting these targets without kind of a bigger strategy could be troublesome even if there is some sort of off-ramp available.

Ms. Van Cleve agreed that there needs to be a comprehensive look at all renewables for Nevada. She said she thought this recommendation was just complimentary to other initiatives that the State is looking at to progress other clean energy goals.

Mr. Nordquist added, there is a docket in the PUCN today that's just kind of getting into the analysis phase, that while it doesn't directly analyze sole storage, it does analyze the impact of solar plus storage on the grid, and may provide, through its process some feedback on maybe the beneficial impact of storage on the grid system today.

Mr. Tuma included some conversations with the PUC. He stated their activities seem to be focused mostly on integration and how storage is interacting with the grid and less on the policy questions of procurement targets, so they're focused on the technical aspects of integration as opposed to sort of the larger vision of where we want to head with these technologies.

Mr. Nordquist added, the integration of storage is where all the value comes from. But the technical part that the Commission is looking at, for example, is what would create the value behind storage facility because unlike something that generates electricity it first has to store it before we can use it, and so the integration becomes very crucial. Did you guys discuss specifically the docket that's on the thing, and what benefits may come out of it, because it was a very early phase in this process?

Mr. Tuma said that he didn't recall discussing that docket, but they did discuss the workshops that the PUC has been going through.

Mr. Thompson asked, so there is nothing precluding NV Energy from investing in storage, if it's found to be cost-effective?

Ms. Arbeit asked, is the proceeding you are referring to regarding PV plus storage costs at the PUCN, the one that is a component of the IRP?

Mr. Nordquist replied, yes.

Mr. Tuma stated, getting back to Danny's comment and question, yes, so storage projects can be put in right now, and the utility talked about a few projects that they had worked on to try to move forward. The one that comes to mind that was used as an example on a number of occasions was in lieu of doing a transmission upgrade to a remote location in Lyon County, there was a proposal that they would use some integrated storage, and I think some renewable energy generation as well. That proposal wound up not moving forward due to objections from the County and permitting from the County, as opposed to the cost-effective negatives of it. There were a few major hurdles that we talked about in this conversation. One of them was sort of how any targets might impact electric customers, whether they're customers of the utility or customers of another provider. And so the TAC had a lot of conversation, and you'll notice in the proposal that passed out of the TAC it doesn't limit it to just customers of the utility, but expresses a need to have this impact all customers, all electric customers equally, whether they're serviced by the utility or not. We didn't set any initial targets. Some initial proposals that we discussed had specific percentage amounts or target amounts, and that was left vague in light of wanting to spur the conversation about this

potential. I think one thing for us to think about when we're looking at this proposal, is that between now and 2020 when we would have sort of a first target time there is going to be another legislative session.

Senator Spearman asked what number 4 is designed to do.

Ms. Van Cleve responded, that type of storage procurement target proposal, it's designed to cause systematic change in the way we plan for our electric grid. So systematic changes to utility planning processes, their interconnection processes for energy storage resources to their valuation processes, procurement, all those listed in the slide there. Last spring NV Energy had a solicitation for new capacities, they put out an RFP, and in the bid offer form there weren't even fields to put in characteristics for energy storage. So it's to make sure that all of those processes, every solicitation, every time the utility thinks about putting in a new distribution line, they're really doing that homework of, well, is this a good place for energy storage, or is it not? So having those targets really sets a goal that the utilities can try to achieve, and hopefully will, with cost-effective projects.

Senator Spearman asked if this could be done without the targets and whether it was systematic change or systemic change.

Ms. Van Cleve responded, I said systematic change, I think it's possible to do this without targets, but it will take a lot longer. It wasn't until we had the initiative from our Public Utilities Commission in California that we had to go out and really show to them that we've done the homework. We looked at where energy storage might be put on the grid and done the cost effectiveness evaluation. It wasn't until we went through that whole process to basically report back to the PUC, that we realized that there was in fact cost effective storage. And so we're hoping to see that sort of similar process of the utility evaluation of very specific energy storage projects. That will help us uncover those opportunities earlier than if we just said generally that utilities should include storage in their processes. So it will speed up the process, essentially.

Senator Spearman asked, if it speeds up the process, is it possible to maybe push the timeline out, and then as a second layer look at the targets?

Ms. Van Cleve continued, yes, and that is the route a lot of states have taken with their storage procurement target legislation. So basically they said, go out and do the homework, have a proceeding, and then at the end of that determine whether or not targets are appropriate.

Senator Spearman asked, can you explain how battery storage can be placed closer to the consumer?

Ms. Van Cleve responded, energy storage can be put on pretty much any point of the electric grid. There are some benefits to putting it directly at the utility where they have full control and utilize it 100 percent for the larger electric grid's needs, but there is certainly a lot of value in placing storage at customer facilities, because customers get those direct benefits of self-consuming their solar, of having backup power on-site, of using it to reduce their electric bills. But what those customer resources can also do is through programs with the utility they can support not only the energy needs of that single house or that single building where storage is located, but also of the larger

electric grid. So those are the types of ways we would expect and are seeing energy storage deployed at customer locations today.

Senator Spearman went on to speak about CAN's 2015 research. She then asked, how do we achieve grid modernization without the mandates so that the fallback position can't make anybody do anything?

Ms. Van Cleve stated, the fastest way to get there is to set goals that aren't mandates but that are something that we're trying to achieve but realize that if the cost-effectiveness isn't there, we may not achieve those in the near-term. There should be some accountability and requirement that the utilities do in fact start considering energy storage as part of their planning processes for new generation, transmission, and distribution.

Ms. Arbeit added, the cost-effectiveness criteria is key to what the TAC has brought before us today. I think we may be surprised at how quickly these types of storage resources fall within that cost-effective category. I think that my understanding of what the TAC has tried to do with these recommendations is just frame up an opportunity maybe to nudge this new tool in our tool kit into the sort of pre-existing evaluation process. Whether it's something that the Legislature might look at next year, or the PUCN might look at and sort of integrate into some existing planning frameworks, and then maybe the Legislature takes a look at it in another couple of years. I think that procurement decisions that are made today tend to have a 30 or a 40-year life behind them. So getting really good information and good data around cost-effectiveness, not just of the existing resources that we have in the resource planning tool kit, but newer resources like storage, like renewables, always ends up leading to better decisions, and better decisions that we're going to have to live with for 30 years out ahead.

Mr. Thompson stated that he supports storage but I would like to know what the increase targets will be in 2019, 2021, and 2023, will it be 5%? His concern with comparing to California is that their rates are considerably higher than ours and mandates cost money.

Ms. Van Cleve responded, the dates that you cite are example dates. And as Matt alluded to earlier, we didn't want to set specific numbers; we think that there is a role for the Legislature, for the PUC to be involved in figuring out what are the right numbers there. So the idea basically is just that over time the storage procurement targets increase, you start out with just a little bit so you get your feet wet, you start figuring out how to value these, plan for these resources, and then you would increase your procurement over time.

Mr. Thompson continued, I understand what you're trying to do, the Legislature does not operate like that. We are asking for a bill and there has to be numbers associated with it or you won't go anywhere, they won't even take it.

Ms. Van Cleve responded, an actual bill doesn't need to include numbers, some other bills directed the PUC to do studies and then set the megawatt numbers based on those studies.

Senator Spearman asked, how does this recommendation differ from recommendations and the groundwork done for the RPS?

Ms. Van Cleve said, I wasn't part of that so I am probably not the best person to answer this.

Senator Spearman continued, I ask because we set some standards in the RPS when it was developed so there has to be a way that we got it done.

Ms. Van Cleve continued, the fact that they've increased over time demonstrates the learning that has happened as a result of those. So I agree that we should do some digging through how those initial numbers were set up but I think the RPS demonstrates the value of setting targets. However, there is a distinct difference between the renewable portfolio standard mandate and storage procurement targets. The mandates are just setting direction for the state.

Senator Spearman stated, here is what I would like us to consider, we should provide some type of framework for emerging technologies. So even if this doesn't pass, the spirit of what this is saying is something that is a necessary component of any discussion we have next session.

Mr. Thompson added, Senator Spearman, that number was a negotiated number. Someone just pulled it out of a hat in the beginning and then they negotiated it over the years. Storage could be used as a way to meet the RPS. What concerns me is that whenever I see mandates I know that costs money and I know the people I represent will be the ones who will be stuck with the bill. So recommendation number 4 is just not clear enough for me, I am fine with number 3.

Senator Spearman continued, if the numbers were negotiated, then perhaps these are numbers we start with. I think we ought to focus a lot more on expanding our renewable energy as opposed to circumventing that by other means and other methods.

Mr. Thompson added, you know I am a professional negotiator, but there are no numbers here. We're mandating something but it doesn't have any numbers associated with it but it has dates.

Mr. Davis interjected, I thought it was pretty clear that we're talking about goals and not necessarily mandates. Like, they're not going to be penalized if they don't hit these targets. So I guess that's where I'm comfortable with it and, mandates don't always cost more money. In fact, in a lot of cases that's not the case. If we make it very clear in our record that we're not talking about mandates, that they don't have to do this, there is no penalty for not doing it, I'm comfortable with it.

Mr. Thompson then added, this says to get a bill, but you're not going to get a bill unless you put some numbers in those categories and dates.

Chair Dykema stated, at this point we're just providing recommendations from the Task Force, we don't have to provide specific bill language. So I understand what you're saying. If it does go forward as a BDR, then most likely more details will be necessary. But at this point, if it's simply a recommendation of the Task Force to consider this, if it's a cost-effective means of doing it, then that's simply all it is, a recommendation. And if it goes forward as legislation, then details can be flushed out at that time. But as a recommendation of the Task Force, I don't think we need to really get down into the weeds that far.

Ms. Van Cleve said, I was just going to add that while certainly it's possible that when we got into the weeds we would develop numbers, it's also possible that a bill would take the form more like the bills passed in California and Massachusetts, which didn't have set numbers. Again, it deferred any setting of exact targets to the Public Utilities Commission after they did a comprehensive study, and then could later set targets. So we could keep this more general and not have specific numbers. This is just an initial recommendation, high level proposal, and certainly there is going to be a lot more discussion around this proposal, as well as all of the others.

Chair Dykema said, possibly we amend to add that the PUC will establish the targets, so were not mandating numbers.

Mr. Susac then added, that is exactly what I was going to say. Would the PUC set the targets and bring it back for the 2020 legislative session for ratification or would it just set targets at a regulatory level and operate under that regulatory level without bringing it back to the Legislature? I feel comfortable that they are targets and that Sarah has done the due diligence with cost-effective provisions.

Mr. Tuma moved to approve the 3rd recommendation from the Technical Advisory Committee on Distributed Generation and Storage and Mr. Thompson provided a second. The recommendation passed unanimously.

Mr. Tuma provided an amendment for recommendation number 4, maybe we could do something along the lines of: a recommendation that the 2017 legislature consider a bill to direct the PUCN to study and, if appropriate, implement cost-effective energy storage procurement targets to serve all electric customers so that Nevada may unlock the opportunities to utilize cost-effective energy storage on the electric grid. This could include targets for storage interconnected at each point of the grid, customer connected, distribution connected, and transmission connected and could have storage procurement targets that increase over time, and report back to the 2019 Legislature.

Mr. Susac added, if the bill is cost-effective, maybe it should say, direct the PUCN to study, and where appropriate implement cost-effective storage, as opposed to "if," which gives the direction to the PUC whether to implement it whether it's cost-effective or not.

Mr. Tuma said, I am comfortable with that.

Chair Dykema said, what are we amending it to? Further storage procurement targets should increase over time with targets starting no later than 2020. Are we keeping that language as is?

Mr. Tuma stated, we could put in their language that, storage procurement targets could increase over time if proven to be cost-effective.

Mr. Thompson added, and then when you get there, if they want to put a date in, they'll put a date in.

Chair Dykema continued, so a recommendation that the 2017 Legislature consider a bill to direct the PUCN to study, and where appropriate, implement cost-effective energy storage procurement

targets to serve all electric customers so that Nevada may unlock opportunities to utilize cost-effective energy storage on the electric grid - everything the same – further storage procurement targets should increase over time if cost-effective to ensure that lessons learned from earlier procurement informs subsequent procurement.

Mr. Thompson moved to approve the 4th recommendation from the Technical Advisory Committee on Distributed Generation and Storage and Mr. Susac provided a second, the recommendation passed unanimously.

Mr. Tuma began the next presentation, number 5 is a recommendation that the 2017 Legislature consider a bill to give one agency or joint agencies specific authority to adopt regulations to oversee the development of distributed resources, the authority to address consumer complaints regarding business practices, and the delivery of distributed generation to be consolidated within one agency and develop regulations with input from stakeholders. It addressed the fact that our net metering distributed generation policies have kind of grown up a little piecemeal with really the intention of growing a small emerging market, and encouraging that market. We're recognizing that this is a larger aspect of all our generation capacity, the 235 megawatt cap initially on NEM 1 represented 3 percent of peak load capacity, and we have been seeing this distributed generation market growing as a size of our energy generation. There has been a fair amount of consumer confusion when they have concerns or questions regarding distributed generation and distributed generation providers, and so we thought it would make, both best sense for the regulations of this industry to be the responsibility of one agency, and they would sort of be the catch-all for any complaints that came through on this industry.

Mr. Davis asked, what happens to the Contractor's Board in this recommendation and what is their role?

Mr. Tuma replied, we didn't identify one specific entity as one that should get complaints. What we have found is that if people have complaints they'll go to one of a few different entities, the Contractors Board or the PUCN or the Bureau of Consumer Protection or the utility. The Board of Contractors handles complaints on any deficiencies that are done in the construction of a project, but if it's not a concern about the construction of a project then people are going to other entities. So we didn't specify which agency should be that catchall on handling complaints, we left that specifically vague for the Legislature to be more prescriptive on that.

Mr. Susac recommended that we not duplicate existing regulations, and that we not have a fragmented regulatory environment as a result of this. What I mean by that is the Attorney General's Office said they received complaints, NV Energy said they received the same fraudulent complaints, the City of Las Vegas also attested to that, and so what that kind of connotes, at least to me is, the consumer is indeed confused, as Matt said, and it's more of an education and outreach to the Bureau of Consumer Affairs giving them a budget to advertise, if that's the appropriate word, or inform the consumer that, hey, you know, there is a place within the State of Nevada that you can go and you can vet these issues and seek redress.

Mr. Davis added, I agree with that. I would just add on to the extent that as we go through this process, I don't want to get into a situation where we have specific competencies that exist at the

various agencies that do this right now, and it would be good to not get into a situation where we're asking an agency, for example, if we moved all this into the Bureau of Consumer Protection, they don't have a lot of experience in terms of regulating contractors, so I wouldn't want to lose the expertise of the Contractors Board on something like that. So that would just be something to take into account as we have the discussion.

Mr. Tuma stated, I am open to any additional language, changes, or caveats that you would like to add on.

Chair Dykema asked, what would that centralized agency look like?

Mr. Tuma replied, I think that whatever system would work for the agencies that have purview over some of these aspects right now. We certainly don't want to be taking people out of their area of expertise and utilize the expertise that we have on regulatory bodies in the State. So I think we would still try to utilize that expertise and utilize the existing framework we had, it would just do a comprehensive review of the regulations that we have on the distributed generation, on distributed generators, and identify where those holes in regulation are, and where those things need to be tightened up, and making sure, like Jeremy said, that customers have full access to educational platforms where they can find out about the industry and get their questions answered from one source as opposed to having to go to half a dozen different sources for one system. You could have kind of a catch-all that will be available and be there for customers to interface with while utilizing the regulations and the expertise of other bodies.

Senator Spearman asked, how does this happen?

Mr. Tuma replied, if someone has a problem, like a rooftop solar installation that is defective, they could then make a complaint to the Contractor's Board about the actual installation. If they have an issue with their contract, you would be between agencies and it would be helpful if there was one entity that was responsible. Because now people will go to any number of entities, whether or not they have that regulatory responsibility, so people will go to the PUC, and they don't necessarily have regulatory oversight over the private contract that an individual has; the same with the utility, and the same with the Bureau of Consumer Protection. So I think that there are those holes, and we would want regulators to define what those holes are and not be duplicative in those efforts, and kind of remove that from a sort of political process.

Mr. Thompson said, I get what you're trying to do. I just know that each of these agencies have deep-rooted laws and regulations. The only impact generally is a threat to the contractor's license. I guess you're not saying take all that out, you're just saying have someone that they could go to.

Mr. Susac added, the deceptive trade practices, as I read it under Chapter 598, also has additional powers of the Attorney General, which is 598.0963, and that enables the Attorney General to actually come after the contractor with criminal potential. So not only would he or she lose their license, but they would also face a criminal action under the existing statute. I do think there are appropriate safeguards in statute, the Attorney General can bring criminal proceedings, and you can lose your license, all under the guise of misleading the public. You can call it deceptive trade practices, false advertisement, fraud, but if you deceive the public you can face criminal

proceedings, and you can lose your license. And so I thought it's more of an educational outreach component. The consumer needs to know whether contracts need to state that when they sign it, they have to have a clause in there that says deceptive trade can be brought to the Attorney General, or however you want to word that, but it seems like you have more than adequate regulations in place. If I could deceive someone, I can face criminal charges, and I could lose my license.

Senator Spearman provided an analogy, how is someone going to the medical board with a problem with someone who practices medicine different from the Contractor's Board addressing issues like solar installations?

Mr. Tuma responded, there are aspects of the distributed generation market that aren't covered by solely the Contractor's Board. There are other aspects of the industry that wouldn't fall into their purview, and so this is an effort to try to create one agency as the agency on point for consumers to interact with regarding distributed generation, that they could utilize as that catchall. You wouldn't want to do away with the existing rules and regulations and processes that currently are available to Nevada citizens, and where there are expertise, but we would want to make sure that we identify where those holes are, and take appropriate action if there aren't areas that are covered by one entity right now.

Mr. Tuma moved to approve the 5th recommendation from the Technical Advisory Committee on Distributed Generation and Storage and Mr. Susac provided a second, the motion passed unanimously.

Mr. Tuma continued with his presentation, this recommendation is a recommendation that the 2017 Legislature consider a bill to specifically direct the PUCN to create a value of distributed solar structured around quantifying the known and measurable impacts of both positive and negative internal to the utility of the following benefits and costs: Avoided energy, line losses, avoided generation capacity, ancillary services, transmission, distribution capacity, avoided CO2 emission costs, voltage support, avoided criteria pollutants cost, fuel, hedging, diversity, environmental costs, utility administration costs, utility integration cost, and participant bill savings. Ultimately, how distributed generation customers, distributed solar customers are reimbursed, the value is determined of the power that they put on the grid, and in other states, and including Nevada, there has been a move to really quantify what that value of solar is, and this is along the lines of the direction that the PUCN is headed right now.

Mr. Davis asked, do we need this recommendation if this is the direction that the PUC is already going in existing dockets?

Mr. Tuma replied, adding more specificity would be a good thing, considering how much conversation there has been about the determination of the value of solar.

Mr. Davis continued, I think we ought to be looking at what's best for the State in general, what's best for the citizens, and we shouldn't just be looking at the internal balance sheet of the utility. So as long as this line of, internal to the utility, remains in this recommendation, I can't support it.

Senator Spearman asked, why was this pinpointed to internal and not to external to include some of the things that many researchers are now saying that when you look at equalizing the costs you have to look at things like healthcare, the cost of carbon, and all those sorts of things?

Mr. Tuma answered, this is because that's currently how rates are set with the utility at the PUC. Accepting externalities would be a diversion from what we currently do. I would say that is a conversation that is certainly appropriate at the Legislature, determining what level of externalities we would want to put in those.

Senator Spearman continued, I am tending to say no because I would really like to see how both affect consumers and utilities positively and negatively.

Chair Dykema said, so we could offer an amendment and take out the internal to the utility part or we could go ahead and vote on it as is.

Mr. Susac stated, maybe after internal you put comma, and external if appropriate comma, to the utility of the following benefits and costs. If they don't think it's appropriate, they don't have to do it. If they don't want to divert from ordinary course of practices, they don't have to do it. You just maximize their discretion.

Senator Spearman then said, having to do with the constitutional amendment, many say they are supporting it because they feel energy choice in Nevada has always gone one way. So if we add the amendment at least that shows a good faith effort on the part of this Committee to say we've heard your concerns and if there is something out there that is external that benefits what the utility is doing, I think we ought to consider that so were balancing this out.

Mr. Nordquist stated, I understand the intent is to try to create a value for the distributed solar to essentially find more constructive ways to promote it, but in this list I'm having a hard time seeing that value will come out of this list. My opinion is that the utility is going to find that it costs more and that it brings more costs to the ratepayer in general. Especially based on the recent work done for the rooftop initiative last year. I'm not sure that these items will really get to the intent of the study.

Chair Dykema interjected, maybe it will re-define value in a way that's not necessarily what some people are expecting.

Mr. Tuma stated, yes, certainly I think at the TAC level we heard that the decision on net metering didn't consider all of these values, there were some that were left off, and that's why the PUC is working on establishing quantitative values for these in its integrated resource plan currently. And so that's really a conversation for the regulatory body where people can bring in quantitative evidence to show what benefits or costs are associated with these values. I'm not a regulator and I don't think that we would want to sort of assign those values ourselves. That certainly wasn't a recommendation that the TAC came up with, but that the regulators, through analyzing inputs from stakeholders and other interested parties in the integrated resource plans and through the general rate cases they should assign what these values are. Again, just providing some guidance and some framework for how they come up with these decisions was really what we were looking at. And

you're right, it could be a lower value than some people expect, it could be a higher value than some people expect. And that's really the determination for the regulatory body I think.

Mr. Nordquist asked, isn't there an E3 report that the PUC went through again? And how is that structured compared to this?

Mr. Tuma answered, as far as the list of benefits and costs that go into determining the value of solar it's fairly similar on what list it is, but then that's one input into how they determine what the value is. And certainly I believe the E3 study would look at what those costs and benefits are internal to the utility and not consider externalities in that, whereas other studies as well will look at externalities, too.

Mr. Davis interjected, yes, I would just offer a compromise. That's still not good enough for me, I think you absolutely should consider benefits and costs, both external and internal, and I don't like the caveat on one and not the other. But I don't want to stand in the way of us being able to move forward on something.

Chair Dykema stated, so I think we are talking about an amendment to add the external impacts, if appropriate. I will accept a motion to approve the recommendation with that modification.

Mr. Tuma made a motion to approve the 6th recommendation from Technical Advisory Committee on Distributed Generation and Storage and Mr. Susac provided a second, the recommendation passed with 4 yaes and 2 naes.

Deputy Attorney General, Harry Ward, stated, if you have a total of 7 potential voting members you will only need four for a plain majority. He then added, I believe that you have quite a few more recommendations, I don't know if they are going to cut you off at 4:30. So my recommendation is to go to public comment after each and every recommendation to comply with the Open Meeting Law. That way we don't violate it and give the public the right to comment.

Chair Dykema asked for any public comment in Las Vegas or Carson City, there was none.

Sarah Van Cleve proceeded with recommendation number 7, the recommendation is pretty high level, it's more of a policy principle. It's a recommendation that the 2017 Legislature consider a bill to direct the PUCN to ensure that customers investing in distributed energy resources be reasonably certain that future changes in policy in the rate design will not significantly lessen the economics of their distributed energy resource investment. And so where this comes out of is the policy and regulatory uncertainty that customers who are thinking about installing distributed energy resources are facing. And frankly, the NEM decisions shook the industry not only in Nevada, but everywhere in the country. Because folks who had invested in solar thought that, my resource, my solar that I'm investing in now has a 15-year payback under this policy and then maybe they only had the resource for a year or two, and suddenly their resource was no longer economical. Almost all generation resources developed right now at the utility-scale, solar, natural gas, whatever else, they're through 20-year contracts, 20-year power purchase agreements, because developers won't take that risk that the price for the energy they're producing is going to be very different in future years. So applying that same type of logic to something like a value of solar tariff, which is being talked about a lot in

this State, where excess solar is compensated at a set level. So again, the idea is that policies that are established should provide certainty for customers who are making the decision, is appropriate for me to invest in my distributed energy resource, whether it's solar, storage, demand response, or should I not? So this isn't any specific proposal in terms of, there should be certain tranches or a certain value of solar, again it's a high level policy principle that already applies generally at the large utility-scale level, and that we think should apply for distributed energy resources as well.

Mr. Thompson said, I don't know of any other customer that is guaranteed that their rates won't change. You know, there is no guarantee for anyone. I don't know how you do this, really. I think back to when NV Energy was criticized in this building by Enron for not having long-term power purchase agreements, and they were buying energy on the spot market, and this Legislature decided that they should deregulate generation, and then California deregulated and power bills in a county in California went up three times, and everybody couldn't get back in this building fast enough to change that back. Then the price of natural gas went through the floor, and all of a sudden it was cheaper to buy on the spot market than it was to be locked into these long-term agreements. So my experience is there is no guarantee about anything, and I don't know how you could guarantee any class of a customer a rate without saying, okay, everybody, your rate is locked in at this. I understand what happened, but that's why the PUC went back, and I believe that it was actually NV Energy that proposed the tariff change to grandfather in those folks who were harmed by that. Because my understanding was that there was a whole lot of behind-the-scenes things going with these leases where people were being told that, your rates will never change, and their rates are going up, when the reality was NV Energy rates were going down, and there was never any guarantee that their rates wouldn't change. So I understand what you're trying to do, but I just don't know how you do that without everyone getting a guarantee.

Mr. Susac added, maybe you're talking about rates and things, but we're talking about consumers, but maybe it's more appropriate to say, erode investment backed expectations. I think if you were going to talk to NV Energy and say, hey, we can't guarantee your investment, that you're going to get a return on it, they'd say, well, then we're not going to guarantee you to provide electricity. If you're going to have a policy for net metering you expect people to make that investment. In fact over the last 18 years there's been statutory or regulatory policies that induced that investment, there's investment expectations there. And to the extent that they have investment expectations, I think that the general spirit of Sarah's motion is not to erode those investment backed expectations or else they're not going to make the investment, just as we guarantee in vertically integrated monopolies that they'll get cost recovery on their investment too.

Ms. Van Cleve added, you don't necessarily need to lock in rates per se to have long-term customer investment certainty. Whenever NV Energy goes out and buys utility-scale solar they sign a 20-year PPA at whatever it is, 7 cents a kilowatt hour. You do something very similar with these customers on the distributed energy resource side. You say, if you sign up today, within this year, you're guaranteed whatever it is, 8 cents a kilowatt hour for your exported storage, 5 cents, whatever the value of solar is that day. It's very similar to long-term contracting that we already do. But again, we're not getting into those specifics, we're establishing a policy principle that would just direct the PUC to make sure that folks are comfortable enough investing in distributed energy resources, they're not afraid that changes in policy and rate design are going to make their investments uneconomical in future years.

Mr. Thompson stated, I understand that. But if you read what this says, that the PUC ensure that customers investing in distributed energy resources be reasonably certain that future changes in policy and rate design will not significantly lessen the economics. I mean, the PUC doesn't control everything, and the Legislature can change things. In fact, that's what happened. The Legislature directed the PUC to do something, and they did that. So I understand what you're trying to do, but I just don't know how you get there from here without a lot of specifics.

Mr. Davis then added, if we were still operating on a one-for-one net metering paradigm, I probably wouldn't agree, but I would be a lot more sympathetic to the argument that, yes, things change. But if we're now in a situation where we're kind of considering rooftop in a similar way that we're considering any other large-scale purchase where there are 30-year PPAs, I think it's fair that distributed generation customers be entitled to that same kind of ability to figure out what that looks like when they make that investment. Of course, they wouldn't have any guarantee over, NV Energy's retail rate changing for the energy they're pulling off the grid. I don't think that this necessarily calls for that, but on that value of solar being fed back onto the grid, they should be able to have those kind of guarantees that a large scale developer would have as well.

Mr. Nordquist added, when a large-scale developer gets a long-term contract, it's fixed, so you also don't get the benefits of the market, that's the risk that developers take in long-term contracts.

Chair Dykema stated, I would like to clarify, it's not directing that rates wouldn't change or that people would be subject to a particular rate.

Mr. Davis, said that it would not be that specific and he was fine with putting in a little more specificity.

Senator Spearman stated, specifically from one of the developments in my district there were people who moved into this particular development with the idea that solar would help them reduce their cost of energy in their retirement years, and they could take the money that they saved to do other things, and it wouldn't be as difficult for them. In some cases a couple people moved from other places to Nevada specifically for that; number 1, no state income tax, number 2, they are moving to a development that had solar. And when the ruling came down in December, it was a shock, to say the least, and I've had more than an earful from people who have basically said they didn't like the fact that they thought one thing and everything changed. So if we want to take the principle that is in place for utility-scale, and at least apply some of that, the modifier here is "significantly." The Constitutional amendment that's being proposed right now, I think that that's been done out of frustration, and I don't want us to do anything in this Task Force that says to people, see, I told you nothing was going to change. And I think that's the danger that we face. All of these are recommendations that the Legislature is going to have to hammer out, but I think at least what we have to do is say to people that whether I agree with what you say in terms of rates staying the same for DG, or whether I disagree, know that we hear you and we're going to iron it out. Because I think the danger is if we don't do some things that speak to the frustration, then more than perilous times will come should this Constitutional amendment pass.

Mr. Susac added, perhaps we should look at this together with number 8 because they share themes like there needs to be stability. This may allow us to craft a more comprehensive proposal.

Jessica Scott began her presentation, we are facing an urgent need for policies that create market stability and get customers off the solar-coaster of wild rate fluctuations. A minimum bill is a way to accomplish that. Minimum bills are charges that set a billing threshold, under which a customer's monthly bill cannot be further reduced through the application of net metering credits or consumption reductions. Currently net metering production credits can be applied against a basic service charge, enabling credits on customer utility bills, which at times can be quite significant. Minimum bills are common practice in a range of industries including water, sewage, and telecommunications. A number of other investor-owned utilities, municipal utilities, and states have either implemented or are actively exploring implementing minimum bill mechanisms. Policies that have been implemented range from \$10 a month for California's largest investor-owned utilities, and up to \$25 per month in Hawaii. These states have some of the most robust solar markets in the United States, suggesting that minimum bills as implemented are not fundamentally incompatible with solar market development.

Mr. Thompson asked, what's wrong with the true value of the solar? Doesn't this go against what you are saying?

Ms. Scott replied, the language in the recommendation is that this is a compromise interim measure until the PUCN has a final decision in the value of solar dockets for both Sierra Pacific and Nevada Power. So this is really an interim measure until we can get to a permanent long-term solution for Nevada.

Mr. Thompson then asked, and when is the PUCN going to make that decision?

Ms. Scott answered, they are currently discussing Sierra Pacific, but the Nevada Power won't have a decision until next year.

Mr. Tuma added, right now Sierra Pacific is going through their integrated resource plan, and that's expected to be until the end of the year, and then they'll discuss their rate case, and then Nevada Power is going to be discussing its rate case next year, and I think it's integrated resource plan is still a couple of years off.

Mr. Thompson stated, by doing this aren't they completely eliminating the value of solar concept? It would seem to me that if you do this, it doesn't matter what it's worth, you're putting in a minimum bill structure that eliminates value.

Ms. Scott clarified, the language specifically says that this is a compromise interim measure until there is a value of solar valuation.

Mr. Davis interjected, you are correct Danny in the sense that this takes it away from trying to figure out that value of solar and takes us back to the previous status quo of net metering. The only difference is now it puts in that there is a minimum bill that every solar DG customer would have to pay, where before that wasn't necessarily the case.

Mr. Susac added, I would say that this is more of a proxy until the value of solar is established. I think the PUCN opening up a docket to look at the value of solar is 100 percent evidence and acknowledgment that they did not have a comprehensive review, and this serves as a proxy. We heard some time lines that it could be a couple years out. If it's anything that I've experienced watching the State of Nevada, it's going to be litigated in the courts. And so I think this puts some pressure on the PUCN to sharpen their pencils and kind of get it done, and as well as gives NV Energy more incentive to come forward with their rate cases or more of a robust filing at the PUCN. But at any point, I think it's just a proxy of saying, hey, you know, maybe \$25 isn't the right number, but we won't know what that number is until the PUCN finalizes these decisions, and that's contingent upon other utility filings and such.

Mr. Thompson said, I was the plaintiff in the case that went to the Supreme Court and won, and primarily opposed because of subsidies on other ratepayers. I view this as just an increase of that subsidy, and I can't support this.

Mr. Tuma stated, at the TAC level we did have quite a few proposals on continuation of retail rate net metering, and as an interim solution until that full value of solar is established. There were a variety of different proposals on how we would fund that, and this is what I was talking about earlier in our meeting about one of the issues that was a recurring theme within our Technical Advisory Committee that if you do have that cost shift, is that being borne by just ratepayers within the utilities, that are serviced by the utility, or is that going to be an initiative that we fund as a State among all energy users and among all citizens? We did have some proposals that looked at trying to fund residential rate net metering or retail rate net metering through the general fund or through other types of tax subsidies that would distribute those costs among all citizens.

Mr. Nordquist asked, was there any discussion on how many Nevadans this affects?

Mr. Tuma replied, that cuts to the heart of the conversation at the Technical Advisory Committee level about whether or not you fund retail rate net metering, whether it's an interim solution, or in the long-term, by just the NV Energy customer base, or whether you go more broadly than that. And so I think anything that is a mandate just for utility customers is going to be solely within the utility customers, and that's a definable number of customers. If you do it more broadly among the State, then it would be all State residents paying those costs.

Mr. Thompson added, there are 30,000 customers involved in this fight.

Mr. Davis said, not all of those solar customers are getting a zero bill every month, so was there any analysis on how many are?

Mr. Tuma continued, this would just affect people who would become new net metered customers and wouldn't be affected by the grandfathering decision. Anyone who is currently a distributed generation customer, filed for that application prior to 12/31/2015, would be grandfathered in and have retail rate net metering, with any cost shift borne by other utility customers.

Senator Spearman said, I think one of the things that we have kept at the forefront of these discussions is the monetary investment that NV Energy has already made, and wanting to make sure that other people who don't have solar are not subsidizing those who do. I think this \$25 would be appropriate to those who are new customers, but I don't know where that gets us with respect with accommodating whatever the difference between solar and non-solar customers' bills are. My question is, if we're talking about renewable energy and we want to monetize those costs, what do we put in place so that the renewable energy industry can grow? I don't think that we want to do anything that is going to severely and permanently damage the power producing company that's already here, but I also don't think we want to do anything that's going to permanently damage the opportunity for the renewable energy industry to grow. But I am going to try to push geothermal to the extent that I can up north.

Mr. Davis added, I'm going to be supporting this recommendation. I guess where it comes down to for me is that we heard in the first meeting of this Task Force that, like it or not, the State's reputation has taken a hit when it comes to renewable energy, and it's entirely because of this rooftop solar issue. This is the thing that is on the table for us today that could potentially lead to actually having a residential solar industry again. And it is, again, temporary until we have figured out the value of solar in a full process that takes this all into account. We know that the PUC's decision that came down in December did not take all of the factors into account, and we don't really know what the outcome would have been had that happened, and hopefully we'll get a fuller picture as they go through these two processes. But we also recognize that, yes, there are costs that are fixed costs that the utility must bear for all customers, no matter how much energy those customers use, and I think that's what we're getting at here with a minimum bill concept, that everybody will make a contribution to those fixed costs. So I think this is a fair compromise measure that's being put forward that recognizes some of these factors and gets us to a place where we actually have some amount of a residential solar industry, while the PUC takes the time that they need in order to make a full decision that takes into account all of the costs and benefits. So I think this is something worth supporting, and it's an important one for us to support if we are going to take steps to repair what we recognize was a black eye that this State still bears.

Mr. Tuma moved to approve the 7th recommendation from the Technical Advisory Committee on Distributed Generation and Storage. Five were in favor and 2 were opposed, the recommendation passed.

A Task Force member moved to approve the 8th recommendation from the Technical Advisory Committee on Distributed Generation and Storage and another Task Force member provided a second, the recommendation passed with 6 yeas and 1 nay.

Chair Dykema opened public comment and there was none.

Ms. Scott continued with recommendation number 9, the traditional panels on your roof approach to solar simply doesn't work for a majority of Americans. A majority of Americans face physical barriers that keep them from installing solar on their own rooftop. A report from the National Renewable Energy Lab and Navigant Consulting found that 73 to 78 percent of homes cannot host solar due to tree shading, roof orientation, or other factors. Moreover, 52 percent of residents nationwide live in multi-unit buildings or homes with shared roofs. Renters have difficulty

participating in rooftop solar, even if their home is suitable. The sheer diversity of ways in which tenants receive and pay for their electricity makes solar participation complex. Some pay their own utility bills, some share a meter and split payments with other renters, and in other cases the landlord pays for utilities and passes a portion of these costs on to the tenant. In all of these cases there is a fundamental disconnect between the entity that would benefit most from utility bill savings of solar, which is the tenant, and the entity that would need to make or approve the solar investment, the property owner. These issues are particularly pronounced for lower income households, which are more likely to live in multi-family housing, have unsuitable roofs, or rent their homes. Community solar addresses these barriers by allowing consumers to subscribe to a local clean energy project, and receive credit on their utility bill for their portion of the clean power produced. 14 states and the District of Columbia have community solar policies in place, and many more are considering programs to expand consumer access to clean energy. The recommendation is for the 2017 Legislature to consider enabling legislation, and to authorize the PUCN to adopt appropriate guidelines to implement community solar, which is also called shared solar, community solar gardens, solar gardens, with the focus on expanding solar access to communities of color and low income neighborhoods.

Mr. Thompson asked, how would we pay for this? You're not talking about an additional ratepayer charge, right?

Ms. Scott replied, were proposing legislation, and intentionally keeping it pretty broad to allow appropriate guidelines to be put in place.

Chair Dykema asked, what sort of enabling legislation do we need?

Ms. Scott answered, the current community solar projects are outside of NV Energy's service territory and this would really be specific to NV Energy.

Mr. Davis added, I think there is a variety of different ways that this could work, if you set up a specific low-income program and maybe there are grants that are able to help with that. Or if the Legislature or the PUC felt it appropriate, they could set up a system where they might be some ratepayers contributing on that.

Senator Spearman asked, Jessica, do you know how Washington, D.C. makes this work?

Ms. Scott replied, there are a lot of different models on how this can work. Sometimes it is a utility administered program or sometimes a bunch of neighbors. I think we should allow the Legislature to come up with what works best for Nevada.

Senator Spearman asked, so the projects that are outside of the purview of NV Energy, are those projects that are collaborations with other utilities or what?

Ms. Scott answered, that is my understanding. There is at least one community solar project already but it's not in NV Energy territory.

Chair Dykema replied, there are currently two community solar projects in the State. The first was in Lincoln County in Lincoln County Power District, one of our rural electric co-ops. It was a 90-kilowatt community solar project. And the other is Valley Electric and Bombard's project down by Pahrump, a 15 megawatt project. So they are currently outside of NV Energy's service territory.

Senator Spearman asked, would this proposal be any different than the way that they're operating? Would it treat NV Energy at a disadvantage by affirming this recommendation? What are the pros and cons?

Ms. Scott stated, I see it as expanding the energy choices that are available to Nevadans, and it just provides another option for renewable energy for those that can't host it on their homes. So it's simply an enabling mechanism to provide more choices.

Chair Dykema asked, there is nothing prohibiting NV Energy from having a community solar project right now?

Mr. Davis replied, it depends on how you define that community solar. Right now NV Energy has the option to put together a program where they go out and build a much larger array and then you can buy into that for some specified price. But if you wanted to have a group of people do a project on their own, that is something that I don't believe is allowed under current law, so it would require enabling legislation.

Mr. Tuma made a motion to approve the 9th recommendation from the Technical Advisory Committee on Distributed Generation and storage, Mr. Davis seconded, the recommendation passed unanimously.

Mr. Tuma presented recommendation number 10, this is a recommendation that the 2017 Legislature consider a bill that would authorize the use of uncommitted renewable generations funding to promote implementation of new technologies, battery storage projects, low income residential solar, and community solar gardens, as determined in a stakeholder process. So as a little bit of background, the renewable generations program is something that NV Energy ratepayers pay into, it's a volumetric charge on all bills, and in its current form it was set up to incentivize 250 megawatts of distributed generation through solar, wind and hydro projects. So if this volumetric charge stays on people's bills and it is kept in the status quo, the program manager testified in front of the DG and Storage TAC that their current projections show a surplus of \$38.2 million in the program once that 250 megawatt commitment is met. So we looked at this as a potential source of funding to promote new technologies and the implementation of new technologies within the utility's grid, and it recognized that there is just a funding pool there that could be utilized for these new technologies.

Mr. Thompson moved to approve the 10th recommendation from the Technical Advisory Committee on Distributed Generation and Storage and Mr. Susac provided a second, the recommendation passed unanimously.

Chair Dykema opened public comment, there was none.

Mr. Susac continued with recommendation number 11, essentially what it does is it creates pilot programs for micro-grids. It establishes projects for all solar communities that incorporate utility-scale storage or home energy storage. It re-establishes net metering, at the retail rate prior to the passage of 374, as an incentive for five years. During those five years are origination that would ultimately be grandfathered in for 20 years. And the rate would run with the home. During that period of time, the PUC would study the cost implications, whether there was savings for avoided infrastructure, or whether there was increased costs as it relates to Rule 9, which is the line extension policy. Throughout the debate, I'll say this almost passed unanimously, there was one no vote, and NV Energy abstained. But that's essentially what it does, it provides a glide path for next generation communities, it provides certainties in all solar communities which are comprised of 20 solar homes or more. If the utility decides to put battery infrastructure that they own and operate, they can file a petition with the PUCN, and the PUCN shall establish within 120 days an approval modification or denial of that investment. But with that, it's designed to provide a new platform for new innovation and new ideas, and that's why we wanted to establish certainty as it related to NEM for the next five years.

Mr. Thompson stated, he said he couldn't support this because it is going back to the same retail rate he opposed for the same reason. That all other customers are subsidizing that rate for 20 years.

Mr. Susac added, the one distinguishing factor is, this isn't just a retrofit of a home, this isn't just going back to NEM, this is providing a new platform for new innovation. You have to build an all solar community. If you want to put 50 homes all solar, we can go 50 homes all solar. But this is a new establishment for a new platform. This changes the architecture of the grids. But it only comes with incentives and new ideas and new innovation and it requires government to make first moves, and that's why it's distinguished from just the retrofitting of a home with a solar panel. This is the next energy platform.

Mr. Thompson said, the reality is it isn't government that's going to pay for this, it's all the other ratepayers. I'm fundamentally opposed, I spent a lot of money opposing that thing.

Senator Spearman asked, has there been any thought given to what this would mean for other ratepayers?

Mr. Susac responded, yes, the rate impact would be minimal because it would only apply to new solar homes. That would only be a few hundred homes per year that would be built. The reason why we chose 20 is we didn't want to preclude some of the smaller builders from experimenting in these new energy platforms. But that number is obviously negotiable and we could move that to 50. I only know of one builder in this state that would be utilizing this program.

Senator Spearman asked, so many of the new homes that are being built in southern Nevada are being plumbed for solar, how is this different from that?

Mr. Susac answered, I am not aware of any other builders building all solar communities, only one builder committed to doing that and they don't build more than a couple hundred homes a year.

Senator Spearman continued, I wasn't saying they have committed to all solar but something like Woodside Homes has completed two developments and all of their homes are plumbed for solar. So what you are saying is the next gen community would be all solar, homes, lights, everything?

Mr. Susac responded, yes, it wouldn't be solar equipped, it would actually be solar installed. And it would also have to be a company with some type of battery technology, whether utility-scale or residential, that firms up that solar so that the thinking was, in discussions with NV Energy at the Technical Advisory Committee, if you were able to achieve that, then you could perhaps reduce some infrastructure costs. You could have a different size feeder, you could have a different local distribution grid. And so there would be some savings there. We don't know what those savings are, we weren't equipped to quantify those savings due to the time and limited with no staff, but we thought we could put forth a regulatory paradigm that could position us to have those numbers validated by the PUCN and see what type of savings, if any. The funding for some of the offsets for the home energy battery storage would come from the renewable generations, as we discussed earlier, that would complement that proposal, as well as Tesla's earlier proposal. And then second of all, we might not even have the incorporation of home energy storage within the home if NV Energy was wanting to do a battery block, or a neighborhood battery, that would serve as community storage. And in that particular instance, if they chose to do so, they would file with the PUC a petition outlining their plans for the pilot project, and the PUCN would have 120 days to agree, modify, or deny that pilot project.

Senator Spearman asked, if this recommendation is passed on to the Legislature, then it's one that would encourage collaboration with NV Energy and not exclude that collaboration?

Mr. Susac, answered, that's right.

Mr. Tuma moved to approve the 11th recommendation from the Technical Advisory Committee on Distributed Generation and Storage and Mr. Susac provided a second, the recommendation passed 6 to 1.

Agenda item number 8 was closed.

9. Public Comment: Chair Dykema opened agenda item number 9. Seeing no public comment in Carson City or Las Vegas, agenda item number 9 was closed.

10. Adjournment: Chair Dykema opened Agenda item number 10 and provided general closing comments.

I just want to take a minute to thank all of you for your participation on this Task Force, as well as all of the Technical Advisory Committee Members. I feel that it's been a very instrumental process to bring together the appropriate stakeholders to discuss these issues that we were asked to address. And there has certainly been no lack of topics or ideas discussed, but I think we've successfully narrowed it down to focus on a few of the worthwhile recommendations that we feel will help to establish the best energy policies for Nevada's future. I will be finalizing our final report to the Governor over the next couple of days, and I look forward to continuing to work with all of you in my capacity as the Director of the Governor's Office of Energy. So, thank you all very much.

Senator Spearman added, I'm going to look for the recommendations that were agreed to move forward to the Legislature, I'm going to encourage everyone to work with us as we hammer out a lot of the details that right now appear to be stumbling blocks. So the Task Force may be, this iteration may be ending but I'm going to look forward to working with everyone on a continuing basis before the 2017 session, as well as during it.

Agenda item number 10 was closed and the meeting was adjourned.