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GOVERNOR'S OFFICE OF ENERGY

MINUTES

Technical Working Group on Innovation, Technology, & Renewable Energy

August 9, 2017

Technical Working Group on Innovation, Technology, & Renewable Energy held a public meeting on August 9, 2017 beginning at 1:00 P.M. at the following location:

CARSON CITY

Legislative Counsel Bureau
401 South Carson Street, Room 3137
Carson City, NV 89701

- 1. Call to order and Roll Call:** The meeting was called to order at 1:00 PM by Chair Jennifer Taylor. Chair Taylor thanked all for attending and noted the agenda would be followed as noticed. The agenda item was opened for roll call and quorum was confirmed.

The following Board Members were present:

Committee Members Present

Jennifer Taylor
Steve Hill
Dana Bennett
Adam Kramer

Committee Members Absent

Daniel Witt

2. Public Comment and Discussion:

Chair Taylor opened Agenda Item No. 2 and asked if anyone from the public sought to make a comment. No public comment was provided.

3. Approval of minutes from June 21, 2017

Vice Chair Hill made a motion to approve the minutes. This motion was seconded by Mr. Adam Kramer. The motion passed unanimously.

4. Presentation: Maria Robinson, Associate Director, Energy Policy & Analysis, w/ Advanced Energy Economy (Discussion)

- a. Renewable Portfolio Standards: A review of market structures and whether RPS encourages continued development of NV's renewable resources.

Chair Taylor advised the meeting would comprise two presentations regarding Renewable Portfolio Standards (RPS) and how this might intersect with an open retail market. The meeting discussions would focus on how RPS work in other states, how RPS could intersect with Nevada's markets, and lessons learned by other states. The presentations would be delivered by two national experts.

Chair Taylor introduced Ms. Maria Robison, Associate Director, Energy Policy & Analysis, w/ Advanced Energy Economy (AEE). AEE is a national trade association that works at both the federal and state level. Members are made up of renewable developers, energy efficiency companies, services providers, large corporate purchasers, transportation companies and manufacturers.

Ms. Robison advised she would be speaking about RPS in restructured states. She requested the record note Nevada is entering uncharted waters regarding the Energy Choice initiative. While it is in the interest of the Working Committee and the overall Energy Choice Committee (Full Committee) to look at other states that have restructured, as a means of guidance, it is also important for the Committees to design a policy specific to Nevada in the current day.

Ms. Robison stated it was important to advise the Working Committee and Full Committee that having a restructured open market doesn't guarantee clean energy will be a part of the state's generation mix. Developers require a level of certainty in order to come to a restructured market. This should be considered both in terms of renewable developers and more traditional energy sources. Having policies in place, such as an RPS, will provide developers with enough confidence to invest into the Nevada market. In addition, having some type of RPS will help stabilize the need for capacity resources.

Ms. Robison listed ways to encourage developers to bring projects to Nevada such as reviewing permitting issues, providing a centralized purchasing authority to offer an option beyond a Renewable Energy Certificate (REC) purchase-only RPS, and providing a predictable increase in demanded through greater adoption of Plug-in Electric Vehicle (PEV) and Electric Vehicle Supply Equipment (EVSE) infrastructure.

Ms. Robinson advised potential policy proposals for easing into restructuring could be a test pilot for commercial and industrial class prior to the full 2023 move to deregulation. The pilot could be instituted via legislation after the 2018 ballot initiative. Moving from cost of service rate making to a market based rate making process would lead the Public Utilities Commission (PUC) to open new dockets to explore how to incorporate Distributed Energy Resources (DER) into the grid.

In regard to providing recommendations to the Full Committee and the decision-making process involved, Ms. Robinson advised most market design questions and decisions would flow down to all other decisions being made, particularly in terms of consumer impact, the sort of renewable energy policies to be applied. It is also critical to know who/what the provider of last resort looks like. Another parallel path could be discussing divestiture of assets. Many questions depend on what market structure will look like.

5. Presentation: Amanda Levin, Climate & Energy Advocate, Natural Resources Defense Council (Discussion)

- a. How can RPS impact Nevada's ability to lead the region in the development of cost-effective energy generation.

Chair Taylor introduced Ms. Amanda Levin, Climate & Energy Advocate, Natural Resources Defense Council (NRDC). NRDC is an environmental non-governmental organization (NGO) that focuses on clean energy, climate action, protecting our natural habitats, and public health. Ms. Levin explained her focus, at NRDC, is the role and impact of clean energy policies in both the wholesale and retail energy markets. Ms. Levin advised her presentation would comprise an overview of how other restructured states have implemented their standards and modified them to reflect changing energy environments. Ms. Levin noted it is currently a much different energy system and environment than when restructuring last took place the US. This should be considered when reviewing how to structure market RPS and other clean energy policies in the state. It is important to ensure Energy Service Companies (ESCOS) have the ability to offer plans to all customers including aggregating loads for businesses and residential properties, making sure there is access to clean energy, and ways to better control energy usage.

Ms. Levin highlighted the past and future role of standards in driving renewable energy development. Standards have been a significant part of the renewable energy boom in the US and this will continue to be a strong driver of growth in the future. Lawrence Berkeley National Laboratory estimates a required increase in total renewable energy generation, of approximately 50%, by 2030. California Independent System Operator (Cal Iso) is going to have a large amount of renewable energy needs in the future. By 2030 the total renewable energy demand in California, to meet its RPS, is going to be about the same as all 29 states standards were in 2016. Therefore, there is a huge market for renewable energy development both in California and regions around it. It is estimated Nevada will need to procure enough additional renewable energy to meet another 10% of state electricity sales in 2030.

Ms. Levin noted RPS driven projects already support a large number of US Jobs and economic activity. The Federal Government estimates that strengthening these standards nationwide could support over 325,000 US jobs annually. The states with the most renewable energy, whether driven by RPS or really good resources, tended to have lower average consumer prices for energy than states with the least amount of renewable. Also, because renewable energy helps reduce the

need to run gas plants, especially during peak hours, it can help reduce any upward pressure on gas prices and gas markets and ensure those reliant on natural gas see significant savings. PFund, a paper published in 2014, estimated average growth in electricity prices was about 3% per year in states with RPS and 3.5% in states without an RPS. The states with the most renewable energy, whether driven by RPS or really good resources, tended to have lower average consumer prices for energy than states with the least amount of renewable. Chair Taylor requested a copy of the PFund paper be circulated to the Working Committee.

Mr. Levin noted some challenges of retail choice and the role of standards. Customer choice does not, by itself, guarantee more clean energy, full market access, or innovative customer options. Choice should not undermine state policy or economic development objectives, and can complement and enhance policy objectives when done correctly. Renewable standards can help serve two vital roles by ensuring customer protection and ensuring adequate investment in capital intensive infrastructure.

Ms. Levin highlighted learning curves regarding RPS issues in restructured states. The overwhelming reliance on short term purchases of RECs has created a few main issues. Without long term contracts it can be difficult for developers to get financing for renewable projects. The REC market can be volatile and there can be variances in RPS compliance costs across years. Ensuring local energy development to maintain a diverse and reliable system can be a challenge in restructured states. Some states have experienced issues with the collection and use of alternative compliance payments (ACP). These issues tended to occur when the ACP rates were designed as the standard compliance method, for retail suppliers, rather than a penalty mechanism.

Chair Taylor asked both presenters for final conclusions and comments regarding developing recommendations for the Full Committee

Ms. Robinson referenced Executive Order 2017-03 and noted RPS meets all requirements of points 3,4,5, and 6. If the referenced points are the energy goals of the state then an RPS portfolio is an important component of achieving these. Points 1, 2 and 7 are also tangentially related.

Ms. Levin noted when developing an RPS portfolio it is important to consider what type of market the state would be joining. This is essential in determining how to track any types of compliance mechanisms and what will be prioritized. Would the state want a central procurement agency to be procuring these RECS or acquiring RECs with energy tied to them? What is going to be the role of NV energy in complying with an RPS? When moving forward on RPS policies it is critical to ensure NV Energy and others involved are comfortable with their role in meeting the standard. Also making sure all parties are comfortable with opening a central government procurement agency and obtaining sign off on that.

Chair Taylor thanked the presenters for their time and expertise.

6. Public comment and discussion.

Chair Taylor opened Agenda Item No. 5 and asked if anyone from the public sought to make a comment.

Mr. Fred Voltz, citizen, provided public comment in Carson City. Mr. Voltz stated the full cost impact, to retail rate payers in Nevada, should be appended to each proposed policy change expressed as a net change to average bills. This information is of great importance in making sound recommendations to the Full Committee.

Mr. Voltz referenced the Connecticut example cited on the third page of the first presentation and noted the last sentence on the page indicated a 2-4 cent per kilowatt increase, back in 2011, when deregulation was implemented. If that same factor applied in Nevada today the increase for retail customers would amount to 27% plus at 3c per kilowatt hour and 36.4% at 4c per kilowatt hour. For situations such as heavy use of air conditioning, even in a small house or apartment, this is a rate increase of \$108 per month on the 3c instance and \$146 per month on the 4c.

Mr. Voltz noted the two presentations had not included maintenance costs for any of the renewable systems that might be installed. Additionally, full costs of implementation would comprise capital costs as well as the tax credits, paid by federal tax payers, to the builders of these systems. The cost of doing business and creating these systems needs to be factored in and recovered on some basis or another.

Mr. Voltz referenced the California retail market and noted its rate payers are paying as much as 40c per kilowatt hour for time of use rates during peak times of the day. This is opposed to a flat rate in Nevada of only 11c per hour. Another issue is California cannot use all renewable power it is currently generating and has been exporting this to Nevada at bargain rates. Unfortunately, despite all the pilot projects, for battery storage, no one technology has clearly emerged as superior and it is not known how long this might take. In the current environment, costs would be enormous if Nevada suddenly has a large capacity it cannot use when generated and can't save.

Mr. Voltz stated he would strongly discourage a rate freeze policy as all this would do is to push the costs off into the future. A rate freeze wouldn't mitigate current costs and would impact rate payers at a higher level later.

Mr. Voltz highlighted the 704Bs in the proposed pilot project. There have been many 704Bs granted, by the PUC, to large commercial industrial users such as mining companies and casinos. There are not many potential participants left for a pilot project. Therefore, this does not seem to be a very viable approach going forward.

7. Adjournment. (For Possible Action)

Chair Taylor thanked all for their participation and attendance. A motion was made by Ms. Bennett to adjourn the meeting. This motion was seconded by Mr. Hill. The motion passed unanimously.