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GOVERNOR'S OFFICE OF ENERGY

MINUTES
Technical Working Group on Innovation, Technology, & Renewable Energy

February 6, 2018

Technical Working Group on Innovation, Technology, & Renewable Energy held a public meeting on February 6, 2018 beginning at 1:00 P.M. at the following locations:

CARSON CITY
Legislative Counsel Bureau
401 South Carson Street, Room 2135
Carson City, NV 89701

LAS VEGAS
Grant Sawyer Building
555 East Washington, Rm 4412,
Las Vegas, Nevada 89101

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. Agenda item No. 1 was opened for roll call and quorum was confirmed.

   The following Board Members were present:

Committee Members Present	Committee Members Absent
Jennifer Taylor	Adam Kramer
Dana Bennett	Paul Anderson
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 January 23, 2018 minutes

Chair Taylor opened Agenda Item No. 3 and asked for a motion to approve the January 23, 2018 meeting minutes. Dr. Dana Bennett. made a motion to approve the minutes. This motion was seconded by Mr. Daniel Witt. The motion passed unanimously.

4. Capturing Cost-Effective Efficiency Resources in a Competitive Retail Electricity Market – Chris Neme, Principal and Co-Founder of Energy Futures Group *(For Discussion)*

Chair Taylor opened Agenda Item No. 4 and introduced Mr. Chris Neme, Principal and Co-Founder of Energy Futures Group.

Mr. Neme advised Energy Futures Group was a consulting firm specializing in the design, implementation, and evaluation of programs and policies to promote investments in energy efficiency and renewable energy, with emphasis on cutting-edge strategies. The company has worked for program administrators, government agencies, the renewable energy industry and advocacy organizations in more than 30 states and provinces, as well as China and several countries in Europe.

Mr. Neme's presentation would cover four main topics; value of efficiency as a resource, size of cost-effective efficiency resource, need for efficiency programs, and options for assigning efficiency program obligations under competitive retail electric market.

Energy efficiency delivers a variety of potential benefits to the electric grid, its consumers and society at large. On the utility systems side the range of benefits include energy savings or reduced costs for energy, reduced need for capital investment in power plants, generating capacity savings, reduced capital investment in new transmission and distribution system infrastructure, reduced line losses, reduced risk, and reduced credit and collection costs.

Mr. Neme provided two examples of states adopting efficiency as an energy resource. In Illinois, Consolidated Edison (Con Ed) imposes savings targets on distribution utilities and spends 4% of electric revenue on energy efficiency programs with a target to meet 20% of electric energy needs in 13 years. Massachusetts imposes a mandate to acquire 'all cost-effective' efficiency on distribution utilities and spends 6% of electric revenue on energy efficiency programs with a target to meet more than 20% of electric energy needs in 10 years.

Chair Taylor if the alternative energy providers are also required to meet those requirements and standards. Mr. Neme advised they were not as the obligations in both of those states are imposed on the distribution utilities. The retail energy suppliers do not have any such obligations.

An example of efficiency as a capacity resource is demonstrated by New England ISO. Since it began integrating long-term forecasts of energy efficiency savings into its transmission planning in 2012, the New England ISO has identified over $400 million in previously planned transmission investments in New Hampshire and Vermont that it is now deferring beyond its 10-year planning horizon.

Energy efficiency programs can lead to deferrals of Transmission and Distribution (T&D) investments in two ways: passive deferral and active deferral. Passive deferral is when system-wide efficiency programs, implemented for broad-based economic and/or other reasons rather than with an intent to defer specific T&D projects, nevertheless produce enough impact to defer specific T&D investments. Active deferral is when geographically-targeted efforts to promote efficiency meet their objectives. The benefits of deferrals can be quite substantial. In New York City and neighboring Westchester County, Con Ed recently estimated that including the effects of its system-wide efficiency programs in its 10-year forecast reduced capital expenditures by more than $1 billion.

When calculating the size of energy resources, studies undertaken across states in the U.S. and Canada commonly estimate the savings potential is approximately 15 or 20 percent. However, for a whole host of reasons those estimates are inherently conservative. National spending figures on utility funded efficiency programs, from 2006 to 2016, showed a growth in savings in direct correlation to expenditures for acquiring those savings. Most of the jurisdictions across the U.S. are getting savings at a levelized cost of approximately 2 to 3 cents per kWh saved

There are a variety of barriers in the market that prevent customers from investing at the level of efficiency that is economically optimal given the supply side cost alternatives. These include awareness and available information, split incentives, risk/uncertainty regarding efficiency performance, transaction costs, different planning horizons for demand than for supply, lack of access to capital, and the concern energy prices don’t align with costs.

Three primary options for a government obligating acquisition of cost effective efficiency are Distribution Utility, Independent 3rd Party, or Retail Energy Suppliers.

Mr. Neme advised his recommendations for establishing cost effective efficiency resources in a competitive retail electricity market include establishing an Energy Efficiency Resource Standard, statutorily setting targets or requiring the Public Utilities Commission to set them, setting targets to be approximately the maximum that is cost-effective (as under SB 150), obligating entities to meet standards, putting energy efficiency obligations on distribution utility or third party not retail energy suppliers, creating performance incentives, having independent evaluation, decoupling, and integrated resource planning for distribution investments.

Chair Taylor asked Mr. Neme to provide to the Technical Working Group (TWG) other examples of performance incentives. Mr. Neme confirmed he would circulate this information to the TWG post meeting.

Chair Taylor thanked Mr. Neme for his time, preparation and presentation.

5. Consideration and Adoption of Policy Recommendations for the full Committee on Energy Choice *(For Discussion)*

Chair Taylor opened Agenda Item No. 5 and advised discussions would focus on moving forward with a finalized set of policy recommendations to present to the full Committee on Energy Choice at its March 7, 2018 meeting.

At the January 23, 2018 TWG Meeting members agreed to continue reviewing the current recommendations and to send any proposed updates, modifications, and additions to Mr. Matt Morris, Legislative Director, Nevada Governor's Office. These changes were incorporated into a revised master document for the TWG's review.

The TWG reviewed the document and identified areas to be synthesized and modified for brevity and clarity. Going forward, it was agreed the TWG would once again have staff re-draft the recommendations as per the meeting discussions. An Appendix would also be added. This document would include all recommendations presented to the TWG over the course of its meetings.

6. Public comment and discussion.

Chair Taylor opened Agenda Item No. 7 and asked if anyone from the public sought to make a comment. Mr. Fred Voltz, Citizen, provided public comment in Carson City.

Mr. Voltz referred to the Energy Choice initiative wording, under 3A, and noted one of the rights created is to reduce costs. There is a publication from the U.S. Energy Information Administration each month entitled electric power monthly which lists the average price of electricity to ultimate customers. The category for November 2017 shows the per kilowatt rate of the states referenced in Mr. Neme's presentation. Massachusetts has a per kilowatt rate of 19.3 cents, New York has 17.81 one cents, Illinois 13.47 cents, Vermont shows 19.88 cents, and New Hampshire 17.87 cents per kilowatt hour. California, another state that has embraced many different renewable energy or Renewable Portfolio Standards, has a rate of 18.77 cents per kilowatt hour. These rates have occurred after each jurisdiction has implemented its selected energy programs and these clearly haven't reduced costs. Comparing to Nevada's average rate of 12.89 cents and the U.S. average rate of 13.01, it doesn't appear Nevada would be wise to model these jurisdictions since costs have remained high or increased.

Mr. Voltz referred to the TWG's work session document and proposed to areas for modification. Regarding item 2C, existing national laboratories are funded by the Federal Department of Energy and receive multibillion dollars annually. Currently there are approximately 200 incubator test sites, of various technologies, around the country and none of these has become particularly prevalent, broken through some of the limitations, or emerged as the best technology. Item is 3B does not include any discussion regarding the impact to existing net metering contracts. If question 3 passes on the November ballot there is no obligation whatsoever for new entrants into the Nevada market to take on existing contracts. This will negatively affect 30,000 Nevadans who have invested in owned or leased systems. At this stage, there is nothing to mandate any new entrants to take those contracts on the same basis. There is a similar concern for employees at existing power plants in Nevada. If Energy Choice passes there is no obligation for new purchasers of those plants to accept existing employees on the same terms and conditions.

7. Adjournment. (For Possible Action)

Chair Taylor opened Agenda Item No. 8 and asked for a motion to adjourn the meeting. A motion was made by Dr. Bennett. This motion was seconded by Mr. Witt. The motion passed unanimously.