

PROPOSED TAC – CLEAN ENERGY SOURCES QUESTIONS – TOM POLIKALAS

1. As a state policy do we prioritize procurement of clean energy (non-fossil) first?

Yes, by:

- a) By legislatively directing the PUCN and the regulated utilities to make energy efficiency improvement and DSM programs the top priority in Integrated Resource Planning and environmental compliance planning, given that energy efficiency improvement provides a wide range of economic, environmental and social benefits to Nevada, particularly in creating jobs and increasing the Nevada's economic output.

This legislation should also direct the PUCN and utilities to maximize cost-effective DSM resource acquisition in resource plans before approving acquisition of other more costly energy supply resources.

When supply-side options are needed, there should be a specific value added to in-state renewable energy generation for their job creation and environmental benefits and specific additional cost added to fossil fuels as the PUCN evaluates in-state clean energy supply as compared to importing fossil fuels from out of state. A small specific additional value attributed to clean energy and/or a specific additional cost added to fossil fuels imported into Nevada would tilt the scale in favor of in state energy efficiency and renewable energy in utility resource planning and the PUCN's IRP process, generating substantial economic and environmental benefits as EE and RE are accelerated.

2. How do you propose we integrate more clean energy into our energy sources?

- a) With regard to energy efficiency, the legislature and Governor should direct the PUCN to revise the primary cost effectiveness test it uses to evaluate demand-side management (DSM) programs. In particular the PUCN should be directed to adopt either the Utility Cost test or a version of the Total Resource Cost test that includes valuation of environmental and other non-energy benefits in the test. Either of these alternative tests are preferable to the test currently used, which is the Total Resource Cost test without valuation of environmental or other non-energy benefits.

The recommended tests for the PUCN to consider are fairer tests and adopting either one should enable NV Energy and Southwest Gas Co. to expand the range of energy efficiency and demand response programs they offer to their customers. A growing number of states including Utah, Colorado and New Mexico have adopted either the Utility Cost test or the Total Resource Cost test with valuation of environmental and other non-energy benefits as their primary DSM program cost effectiveness test.

The PUCN should be given express legislative authority to implement any degree of "decoupling" of electric utility cost recovery from the sales of kWhs. This policy eliminates the disadvantage to the utility when its customers use less electricity or [install solar PV or other distributed energy systems](#). Decoupling also provides assurance that the utility will recover its costs and authorized rate of return.

- b) In terms of adding more clean energy supply-side resources, a specific value or preference should be attributed to instate renewable energy developments, whether utility owned or otherwise, for the greater number of jobs and other benefits they create by reducing the importation of fossil fuels.
- c) Clean energy resources should also include Combined Heat & Power systems, Waste Heat to Power Systems, Waste Pressure to Power Systems. A recent DOE report found (page 62 of [“Combined Heat and Power \(CHP\) Technical Potential in the United States,” US DOE, March 2016:](#)

<http://energy.gov/sites/prod/files/2016/04/f30/CHP%20Technical%20Potential%20Study%203-31-2016%20Final.pdf>

“There is 971 MW of commercial, institutional and multifamily on-site CHP potential in Nevada, primarily in the hotels, schools, commercial (office) buildings, colleges and universities, and multifamily buildings sectors.”

3. Are there existing statutes that need revision/amendment/deletion in order to implement the broad policy of prioritizing clean energy first? If so, what statutes do you propose be revised/amended/deleted and what is the general direction for your proposal to do so?

4. Are there specific legislative instructions that need to be provided to the PUC?

- Decoupling? Definitely! The Legislature needs to clearly authorize the PUCN to have the legal authority to implement full or partial decoupling. PUCN Commissioner Noble determined in a docket in 2015, that previous legislatures did not provide this authority, thereby taking this vitally important policy tool out of the PUCN’s toolkit. Indeed, given the positive ramifications for both energy efficiency measures and for rooftop solar and other DG, a strong case can be made that the legislature should **direct** the PUCN to implement decoupling.

- Loading Order? Yes, the Legislature should direct the PUCN to fully utilize energy efficiency measures deemed cost effective under the Utility Cost Test or a test such as the Societal Cost Test. [The Regulatory Assistance Project explains benefits derived from energy efficiency](#) that should be factored in if a Societal Cost Test is used.

www.raponline.org/document/download/id/6739

- The loading order should be:

- a) Maximize energy efficiency as a resource, predicated on a study of all economically feasible EE/DSM measures under the Utility Cost Test or Societal Cost Test
- b) Include CHP/WHP/WPP as second level of efficiency opportunity
- c) Instate renewable energy

Consideration of externalities and how to quantify?

Meetings to determine a value associated with externalities could be convened with conservative values assigned to each, with hopeful/expected consensus that the values determined are reasonable. For example,

- there are studies from other utilities and government sources that show that diminishing imports creates jobs, with a multiplier of at least 2. (At least twice as many jobs are created by using in-state production vs. importing a commodity of equal value).
- For CO₂, many sources are ascribing at least a value of \$10/ton.
- Other emissions: several sources estimate NO_x, SO_x, and others; using a lower bound would still produce added value to efficiency and RE
- Some sources quantify the health benefits of cleaner air through EE and RE as compared to fossil fuel use.
- A value can be assigned to risk, such as the risk of overreliance on Natural Gas, with risks including change in price, supply disruption, or new evidence showing environmental damage caused by fracking
- A proxy value can be assigned water savings achieved through EE and RE

5. What broad policies are necessary to increase Nevada's opportunities for exportation? What policies do we need to coordinate with the Grid Mod TAC?

1) Demand for clean energy across the nation will be increased when there's further pressure on coal-fired power plants through the Clean Power Plan. Nevada has abundant renewable energy resources, no coal mines. It is in the economic interest of Nevada to support the Clean Power Plan, and showcase Nevada's speed to comply with its requirements.

2) Demand for electricity, with derivative demand for clean power, can be accomplished by increasing the use of electric technologies which directly displace the use of fossil fuels.

These technologies include:

- Electric vehicles
- Heat Pump Water Heaters (more economical than both natural gas and solar water heating on a life cycle analysis, according to ACEEE)
- Other Air-Source Heat Pumps for space heating
- Geothermal heat pumps

Nevada policy should seek to accelerate the market penetration of these technologies that increase demand for electricity while at the same time reduce emissions and save consumers money.

3) Nevada should not look uniquely to exporting energy, but also to exporting energy expertise, technology, and products.

- Ormat is a good example of a company both with projects in Nevada, a corporate headquarters in Nevada, and developing projects across the world.
- ElectraTherm, a company employing 30 people in Reno, exports its machines across the world, with one project at a mine in Nevada.
- Johns-Manville has an insulation manufacturing plant in Fernley, employing 30.
- R-MAX also has an insulation manufacturing plant in Fernley.
- The Tesla Gigafactory outside Reno showcases the larger opportunity for Nevada-based manufacturing that is linked to emerging clean energy technologies.

6. Should we revise/expand the RPS? If so, what is your proposal for revision/expansion?

Yes, the RPS should be increased to a range within those recently established by other leading clean energy states such as Oregon and California. Also, when possible, Nevada should encourage other states to establish or increase their own RPS policies.

- What are the impediments to revising/expanding the RPS?

- It's perceived as working. It's not. The purchase of out of state credits derailed its success.
- We can expect some voices who will say it would increase costs to consumers, so more education will be needed to explain the benefits of clean energy and the disadvantages of importing fossil fuels into Nevada.

- Should we phase out banked credits?

Yes, at least a phase out that would eliminate them by 2020. Clean energy technologies are available at a much lower cost than when the credits were purchased. Consider them a sunk cost that (arguably) saved consumers money years ago as compared to buying in state RE.

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7. What specific policy actions should occur, if any, related to EE?

- 1) The Legislature should direct the PUCN to ensure that energy efficiency programs for insulation, air-sealing, duct sealing, high efficiency appliances and lighting) are delivered to low-income Nevadans who pay a much higher proportion of their income for basic energy needs. This direction could be:
 - a) Giving at least a 1.5 multiplier to the benefits of these programs while evaluating them under a Utility Cost Test.
 - b) Directing a minimum percentage of overall efficiency program spending be directed at this sector, with 5% being a reasonable number.
- 2) The Legislature should direct the PUCN to facilitate the development of programs to enable apartment complexes and other Multi-Family Housing become more energy efficient. Tenants don't invest in their land-lords' properties; landlords don't pay utility bills, hence a market disconnect and need for a utility program.
- 3) The Legislature should ensure that Property Assessed Clean Energy (PACE) programs for both the commercial and residential sectors are available.
- 4) The Legislature should facilitate a "GREEN BANK" that leverages additional private capital toward EE and RE. Details have been provided to the Legislative Committee on Energy in late 2015 and are available.
- 5) The Legislature should look for incentives to communities that enforce the most recent building energy code adopted by the state.
- 6) The Legislature should direct the PUCN to develop performance-based incentives that reward the utilities for meeting energy saving targets. Decoupling removes a disincentive to energy efficiency; it does not create an incentive. A performance-based bonus would leverage the substantial talent and resources of the utilities to be directed to produce more energy savings for their consumers while at the same time being in their own financial best interest.

7) The Legislature should **Require a State Energy Efficiency Strategy** directing the Governor's Office of Energy to convene key stakeholders and prepare a state energy efficiency strategy that would achieve at least 20% energy savings by 2030.

The strategy should:

- a) consider all forms of energy use in the state (electricity, natural gas and transportation fuels)
- b) include energy savings goals for 2020, 2025, and 2030,
- c) include a specific set of initiatives for achieving the goals that would involve actions by both the public and private sectors
- d) propose a system for tracking progress towards the goals.

The EE strategy should include both current policies and programs, enhancements to current policies and programs, and new policies and programs. The Nevada energy efficiency strategy should review and draw from similar strategies in other western states, as appropriate. Key stakeholders should be invited to assist in the preparation of the strategy including businesses, consumer groups, utilities, relevant state agencies, local governments, energy efficiency experts, and environmental groups.

- 8) The Governor's Office of Economic Development should initiate or expand concerted efforts to assist Nevada's emerging energy technology sector, both EE and RE, and aggressively seek the expansion of existing EE/RE businesses while also seeking new EE/RE businesses to locate manufacturing or headquarters to Nevada. A recent study by the American Jobs Project indicated that Nevada could see the addition of 28,000 new jobs in solar and battery technologies alone.
- 9) **The Legislature should direct the development of a State Plan and Programs to Accelerate the Adoption of Electric Vehicles (This could be a joint effort of DOT, NGOE, GOED, and other agencies)**

The Nevada Legislature should establish transportation electrification as a state goal and encourage greater utility involvement in expanding the deployment of electric vehicles. Declare that there is a public interest in expanded use of electric vehicles, and direct the PUCN to work with the regulated utilities to develop plans and programs that will accelerate the adoption of electric vehicles in Nevada by the end of 2017. An electric vehicle plan may include investments in or customer rebates for charging infrastructure, in a manner that stimulates competition and customer choice in charging infrastructure; appropriate tariffs for both consumer electric vehicles and heavy duty electric vehicles; consumer or midstream vehicle incentives; and a plan to market the benefits of electric vehicles. The PUCN would review any submitted plan to determine if it is reasonable and will benefit all of its customers and how costs of the implementation of the plan shall be recovered. Similar legislation has passed in 2016 in Utah and Oregon.

- 10) **The legislature should adopt Financial Incentives to Stimulate the Purchase of Electric Vehicles**

Experience from other states shows that a modest financial incentive, either as a point of sale rebate, has a significant impact on increasing electric vehicle sales. Nevada could create a state sales tax rebate, capped at a maximum of \$2,500 per vehicle. Based on 2015 Nevada EV sales, and assuming this would increase sales an additional 50% on average, the cost to the state will be approximately \$2.25 million per year. This point of sale tax rebate program that could be in effect for a limited time, such as four years, 2017-2020, to put Nevada among the leading states in electric vehicle adoption. This policy matches well with the policies that are facilitating the manufacture of electric vehicles.

8. Are there existing impediments to further clean energy development that can be controlled by the state?

- 1) The economic disadvantages of importing billions of dollars of fossil fuels is not widely understood. Policymakers and agencies should study and publicize these economic impacts.
- 2) The Nevada Division of Environmental Protection (NDEP) has indicated it will seek an extension in developing a Nevada Clean Power Plan. NDEP and others should be developing this plan, and looking for opportunities to make low-income Nevadans more energy efficient, so as to leverage the possibility of economic benefits through the Clean Energy Incentive Program alluded to by US EPA.
- 3) should move forward with its own Clean Power Plan despite the stay.

9. Will any/all of the proposals set forth above ensure that:

- Nevada will be CPP compliant at the time the stay is lifted?

Yes.

- Nevada will be in a position to adopt CEIP early-action compliance?

Yes

- Nevada will be trade ready at the time the CPP stay is lifted?

Uncertain. Nevada should engage in discussions about a regional or national trading system for credits for CO2 reduction.

Implementation of the above policies will enable Nevada's economy to grow sustainably, creating thousands of jobs in clean energy, and producing positive multiplier effects that will brighten the future of all Nevadans.

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