PROPOSED TAC – CLEAN ENERGY SOURCES QUESTIONS – ROBERT JOHNSTON

From Governor's Accord:

Our states will diversify energy generation and expand clean energy sources.

- Expanding energy efficiency and renewable energy in a cost-effective way strengthens our states' economic productivity, reduces air pollution and avoids energy waste. Integrating more of these clean energy sources into our electricity grids can also improve the flexibility and stability of these grids. Promoting energy savings through efficiency and conservation programs is the fastest, most reliable and often cheapest way to meet our energy needs. Technologies that capture solar, wind, hydroelectric and geothermal power have become viable and cost-effective to integrate into our states' energy portfolios. These technologies are already providing energy to millions of Americans while reducing energy waste and air pollution. Amidst decreasing costs of renewable energy, and rapid advances in efficiency throughout entire energy systems, our states will diversify our energy portfolios for economic, health and environmental benefits.

- IRP process does not adequately evaluate the costs/benefits of clean energy resources (energy efficiency, demand response, renewable energy and distributed energy resources (DERs))

    - While NRS 704.746 allows the Commission to give preference to demand-side and supply-side measures that provide the greatest economic and environmental benefits to the State (energy efficiency, energy from solar, geothermal, wind and hydrogenation facilities, cogeneration facilities), the primary focus has been on the "least cost" plan as measured by the present worth of revenue requirements

    - Focus on "least cost" undervalues economic and environmental benefits of investment in energy efficiency, DERs, renewable energy

    - Energy efficiency program budgets have been reduced, with no programs for low income customers or renters (homes or multi-family)

    - Does not adequately assess fuel price risk and carbon price risk of over-reliance on natural gas fired generation

    - Does not diversify our energy portfolios

From Governor's Accord:

Our states will modernize energy infrastructure.

Modern distribution and transmission grids are required to give consumers more control over their own energy use, increase electricity reliability, and integrate more renewable energy and energy efficiency technologies into our energy systems. Electrical grid improvements, advanced in a cost-effective way, can empower utilities and consumers to manage electricity flexibly and efficiently.

- IRP process does not provide for resource planning on the distribution grid to provide for merging of rooftop solar, behind-the-meter energy storage, plug-in electric vehicles and other DERs into the utility's day-to-day grid operation and long-range distribution grid planning

Process Concerns

- IRP process lacks stakeholder involvement prior to the utility's plan filing, except by the PUCN Staff and Bureau of Consumer Protection

- Separate IRP filings by Nevada Power Company and Sierra Pacific Power Company makes little sense now that their systems are interconnected by ON-Line

Example of Nevada Power Company's 2015 IRP Filing in Docket No. 15-07004:

- Planning to a Broken RPS (Attachment 1)
- NV Energy's projected generation by fuel category:
  For 2020: 72.8% Natural Gas, 16.5% Renewable (1.5% DG)
  For 2030: 78.7% Natural Gas, 16.2% Renewable (1.7% DG)
- Modeled Generation "Placeholder" Additions by Nevada Power Company, 2020-2030
  New Natural Gas Generation: 2,253 MW
  New Utility-Scale Renewable Generation: 10 MW
- Projected Trajectory of CO_2 Emissions for Nevada Power Company (Attachment 2) Generally declining from 13,985,254 tons in 2016 to 10,821,865 tons in 2026, but then increasing to 11,588,754 tons by 2030

PROPOSED SOLUTIONS

- Establish preference in NRS 704.746 for measures to reduce demand and increase supply that provide the greatest economic and environmental benefits and the greatest opportunity for the creation of new jobs in the state

- Establish preference in NRS 704.746 for measures that diversify energy portfolios and reduce fuel-price and carbon-price risk

- Amend NRS 704.741 to require inclusion in the utility's IRP of a distribution resource plan to provide for the merging of rooftop solar, behind-the-meter energy storage, plug-in electric vehicles and other DERs into the utility's day-to-day grid operations and long-range distribution grid planning

- Amend NRS 704.741 to provide for a transition to a combined IRP for Nevada Power Company and Sierra Pacific Power Company

- Amend NRS 704.746 to provide for a pre-filing stakeholder process
    - Consider extension of statutory deadlines? (Currently 180 days for IRP, 135 days for IRP amendment)

NEVADA'S CURRENT INTEGRATED RESOURCE PLANNING LAWS

NRS 704.741 Plan to increase supply or decrease demands: Triennial submission required; contents prescribed by regulation; requirements.

1. A utility which supplies electricity in this State shall, on or before July 1 of every third year, in the manner specified by the Commission, submit a plan to increase its supply of electricity or decrease the demands made on its system by its customers to the Commission.

2. The Commission shall, by regulation:

(a) Prescribe the contents of such a plan, including, but not limited to, the methods or formulas which are used by the utility to:

(1) Forecast the future demands; and

(2) Determine the best combination of sources of supply to meet the demands or the best method to reduce them; and

(b) Designate renewable energy zones and revise the designated renewable energy zones as the Commission deems necessary.

3. The Commission shall require the utility to include in its plan:

(a) An energy efficiency program for residential customers which reduces the consumption of electricity or any fossil fuel and which includes, without limitation, the use of new solar thermal energy sources; and

(b) A comparison of a diverse set of scenarios of the best combination of sources of supply to meet the demands or the best methods to reduce the demands, which must include at least one scenario of low carbon intensity.

4. The Commission shall require the utility to include in its plan a plan for construction or expansion of transmission facilities to serve renewable energy zones and to facilitate the utility in meeting the portfolio standard established by NRS 704.7821.

5. As used in this section:

(a) "Carbon intensity" means the amount of carbon by weight emitted per unit of energy consumed.

(b) "Renewable energy zones" means specific geographic zones where renewable energy resources are sufficient to develop generation capacity and where transmission constrains the delivery of electricity from those resources to customers.

(Added to NRS by 1983, 886; A 1987, 961; 2007, 2986; 2009, 993, 1075)

NRS 704.746 Public hearing on adequacy of plan; determination by Commission.

1. After a utility has filed its plan pursuant to NRS 704.741, the Commission shall convene a public hearing on the adequacy of the plan.

2. The Commission shall determine the parties to the public hearing on the adequacy of the plan. A person or governmental entity may petition the Commission for leave to intervene as a party. The Commission must grant a petition to intervene as a party in the hearing if the person or entity has relevant material evidence to provide concerning the adequacy of the plan. The Commission may limit participation of an intervener in the hearing to avoid duplication and may prohibit continued participation in the hearing by an intervener if the Commission determines that continued participation will unduly broaden the issues, will not provide additional relevant material evidence or is not necessary to further the public interest.

3. In addition to any party to the hearing, any interested person may make comments to the Commission regarding the contents and adequacy of the plan.

4. After the hearing, the Commission shall determine whether:

(a) The forecast requirements of the utility are based on substantially accurate data and an adequate method of forecasting.

(b) The plan identifies and takes into account any present and projected reductions in the demand for energy that may result from measures to improve energy efficiency in the industrial, commercial, residential and energy producing sectors of the area being served.

(c) The plan adequately demonstrates the economic, environmental and other benefits to this State and to the customers of the utility, associated with the following possible measures and sources of supply:

(1) Improvements in energy efficiency;

(2) Pooling of power;

(3) Purchases of power from neighboring states or countries;

(4) Facilities that operate on solar or geothermal energy or wind;

(5) Facilities that operate on the principle of cogeneration or hydrogeneration;

(6) Other generation facilities; and

(7) Other transmission facilities.

5. The Commission may give preference to the measures and sources of supply set forth in paragraph (c) of subsection 4 that:

(a) Provide the greatest economic and environmental benefits to the State;

(b) Are consistent with the provisions of this section;

(c) Provide levels of service that are adequate and reliable; and

(d) Provide the greatest opportunity for the creation of new jobs in this State.

6. The Commission shall:

(a) Adopt regulations which determine the level of preference to be given to those measures and sources of supply; and

(b) Consider the value to the public of using water efficiently when it is determining those preferences.

7. The Commission shall:

(a) Consider the level of financial commitment from developers of renewable energy projects in each renewable energy zone, as designated pursuant to subsection 2 of NRS 704.741; and

(b) Adopt regulations establishing a process for considering such commitments including, without limitation, contracts for the sale of energy, leases of land and mineral rights, cash deposits and letters of credit.

8. The Commission shall, after a hearing, review and accept or modify an emissions reduction and capacity replacement plan which includes each element required by NRS 704.7316. In considering whether to accept or modify an emissions reduction and capacity replacement plan, the Commission shall consider:

(a) The cost to the customers of the electric utility to implement the plan;

(b) Whether the plan provides the greatest economic benefit to this State;

(c) Whether the plan provides the greatest opportunities for the creation of new jobs in this State; and

(d) Whether the plan represents the best value to the customers of the electric utility.

(Added to NRS by 1983, 887; A 1989, 1607; 1991, 524; 2007, 1773; 2009, 993, 1323; 2013, 3084)